

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense-Wide**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

**UNCLASSIFIED**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

**Table of Volumes**

Defense Contract Audit Agency.....	Volume 5
Defense Contract Management Agency.....	Volume 5
Defense Counterintelligence and Security Agency.....	Volume 5
Defense Information Systems Agency.....	Volume 5
Defense Logistics Agency.....	Volume 5
Defense Security Cooperation Agency.....	Volume 5
Defense Technical Information Center.....	Volume 5
Defense Threat Reduction Agency.....	Volume 5
DoD Human Resources Activity.....	Volume 5
Operational Test and Evaluation, Defense.....	Volume 5
Space Development Agency.....	Volume 5
The Joint Staff.....	Volume 5
United States Special Operations Command.....	Volume 5
Washington Headquarters Services.....	Volume 5

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

**Table of Contents**

**Comptroller Exhibit R-1..... V**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... lxxv**  
**Program Element Table of Contents (Alphabetically by Program Element Title).....lxxxiii**  
**RDT&E Justification Books.....Volume 5**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	25,998,380	29,047,458				51,745
Operational Test & Eval, Defense	257,120	276,591				
Total Research, Development, Test & Evaluation	26,255,500	29,324,049				51,745
Other RDT&E Budget Activities Not Included in the Research, Development, Test and Evaluation Title						
Office of the Inspector General	1,098	2,365				
Defense Health Program	2,395,081	2,633,488				
Chem Agents & Munitions Destruction	942,493	1,000,131				
Total Not in Research, Development, Test & Evaluati	3,338,672	3,635,984				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Research, Development, Test & Eval, DW	51,745	29,099,203	32,077,552
Operational Test & Eval, Defense		276,591	277,194
Total Research, Development, Test & Evaluation	51,745	29,375,794	32,354,746
Other RDT&E Budget Activities Not Included in the Research, Development, Test and Evaluation Title			
<hr style="border-top: 1px dashed black;"/>			
Office of the Inspector General		2,365	1,864
Defense Health Program		2,633,488	909,994
Chem Agents & Munitions Destruction		1,000,131	975,206
Total Not in Research, Development, Test & Evaluati		3,635,984	1,887,064



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Summary Recap of Budget Activities	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Basic Research	850,283	912,183				
Applied Research	1,871,853	2,220,910				
Advanced Technology Development	3,824,888	4,785,358				12,500
Advanced Component Development & Prototypes	9,924,410	10,753,998				
System Development & Demonstration	715,180	558,880				
Management Support	2,009,743	2,236,321				
Operational Systems Development	6,707,307	7,434,399				11,345
Software And Digital Technology Pilot Programs	351,836	422,000				27,900
Total Research, Development, Test & Evaluation	26,255,500	29,324,049				51,745

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Summary Recap of Budget Activities	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Basic Research		912,183	773,340
Applied Research		2,220,910	2,386,000
Advanced Technology Development	12,500	4,797,858	4,638,401
Advanced Component Development & Prototypes		10,753,998	10,756,509
System Development & Demonstration		558,880	1,014,114
Management Support		2,236,321	2,107,291
Operational Systems Development	11,345	7,445,744	10,114,680
Software And Digital Technology Pilot Programs	27,900	449,900	564,411
Total Research, Development, Test & Evaluation	51,745	29,375,794	32,354,746

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of FYDP Programs</b>						
General Purpose Forces	106,451	61,586				
Intelligence and Communications	1,042,057	1,113,278				27,900
Research and Development	18,915,981	20,131,763				12,500
Central Supply and Maintenance	10,408	13,580				
Training Medical and Other	29,392	30,219				
Administration and Associated Activities	29,818	26,747				
Special Operations Forces	806,596	850,263				
Space	455,189	1,684,804				
Classified Programs	4,859,608	5,411,809				11,345
Total Research, Development, Test & Evaluation	26,255,500	29,324,049				51,745
<b>Summary Recap of Non-RDT&amp;E Title FYDP Programs</b>						
Research and Development	2,395,081	2,633,488				
Central Supply and Maintenance	942,493	1,000,131				
Administration and Associated Activities	1,098	2,365				
Total Research, Development, Test & Evaluation	3,338,672	3,635,984				

R-123BPP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of FYDP Programs</u>			
General Purpose Forces		61,586	79,481
Intelligence and Communications	27,900	1,141,178	1,020,794
Research and Development	12,500	20,144,263	22,075,631
Central Supply and Maintenance		13,580	6,759
Training Medical and Other		30,219	38,568
Administration and Associated Activities		26,747	28,400
Special Operations Forces		850,263	816,413
Space		1,684,804	131,227
Classified Programs	11,345	5,423,154	8,157,473
Total Research, Development, Test & Evaluation	51,745	29,375,794	32,354,746
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>			
Research and Development		2,633,488	909,994
Central Supply and Maintenance		1,000,131	975,206
Administration and Associated Activities		2,365	1,864
Total Research, Development, Test & Evaluation		3,635,984	1,887,064

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Summary Recap of Budget Activities	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Basic Research	850,283	912,183				
Applied Research	1,871,853	2,220,910				
Advanced Technology Development	3,824,888	4,785,358				12,500
Advanced Component Development & Prototypes	9,924,410	10,753,998				
System Development & Demonstration	715,180	558,880				
Management Support	1,752,623	1,959,730				
Operational Systems Development	6,707,307	7,434,399				11,345
Software And Digital Technology Pilot Programs	351,836	422,000				27,900
Total Research, Development, Test & Evaluation	25,998,380	29,047,458				51,745

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Summary Recap of Budget Activities	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Basic Research		912,183	773,340
Applied Research		2,220,910	2,386,000
Advanced Technology Development	12,500	4,797,858	4,638,401
Advanced Component Development & Prototypes		10,753,998	10,756,509
System Development & Demonstration		558,880	1,014,114
Management Support		1,959,730	1,830,097
Operational Systems Development	11,345	7,445,744	10,114,680
Software And Digital Technology Pilot Programs	27,900	449,900	564,411
Total Research, Development, Test & Evaluation	51,745	29,099,203	32,077,552

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities						
-----						
Summary Recap of FYDP Programs						
-----						
General Purpose Forces	106,451	61,586				
Intelligence and Communications	1,042,057	1,113,278				27,900
Research and Development	18,658,861	19,855,172				12,500
Central Supply and Maintenance	10,408	13,580				
Training Medical and Other	29,392	30,219				
Administration and Associated Activities	29,818	26,747				
Special Operations Forces	806,596	850,263				
Space	455,189	1,684,804				
Classified Programs	4,859,608	5,411,809				11,345
Total Research, Development, Test & Evaluation	25,998,380	29,047,458				51,745

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Summary Recap of FYDP Programs -----			
General Purpose Forces		61,586	79,481
Intelligence and Communications	27,900	1,141,178	1,020,794
Research and Development	12,500	19,867,672	21,798,437
Central Supply and Maintenance		13,580	6,759
Training Medical and Other		30,219	38,568
Administration and Associated Activities		26,747	28,400
Special Operations Forces		850,263	816,413
Space		1,684,804	131,227
Classified Programs	11,345	5,423,154	8,157,473
Total Research, Development, Test & Evaluation	51,745	29,099,203	32,077,552

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Chemical and Biological Defense Program	1,043,228	1,052,545				
Defense Advanced Research Projects Agency	3,504,048	3,855,290				12,500
Defense Contract Audit Agency	2,118	2,568				
Defense Contract Management Agency	2,789	4,265				
Defense Counterintelligence & Security Agency						
Defense Human Resources Activity	37,919	30,509				
Defense Intelligence Agency						
Defense Information Systems Agency	424,909	329,587				
Defense Logistics Agency	252,947	350,904				
Defense Security Cooperative Agency	6,064	7,398				
Defense Technical Information Center	61,647	65,002				
Defense Threat Reduction Agency	567,055	645,430				
Missile Defense Agency	7,850,486	7,226,998				
National Geospatial Intelligence Agency						
National Security Agency						
Office of Secretary of Defense	5,593,632	7,030,733				27,900
Space Development Agency	267,116	1,376,817				
U.S., Special Operations Command	812,658	856,257				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Chemical and Biological Defense Program		1,052,545	1,325,355
Defense Advanced Research Projects Agency	12,500	3,867,790	4,119,194
Defense Contract Audit Agency		2,568	2,664
Defense Contract Management Agency		4,265	1,244
Defense Counterintelligence & Security Agency			
Defense Human Resources Activity		30,509	30,664
Defense Intelligence Agency			
Defense Information Systems Agency		329,587	207,275
Defense Logistics Agency		350,904	227,972
Defense Security Cooperative Agency		7,398	8,317
Defense Technical Information Center		65,002	66,702
Defense Threat Reduction Agency		645,430	653,952
Missile Defense Agency		7,226,998	7,872,996
National Geospatial Intelligence Agency			
National Security Agency			
Office of Secretary of Defense	27,900	7,058,633	7,578,029
Space Development Agency		1,376,817	
U.S., Special Operations Command		856,257	822,508

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
The Joint Staff	115,034	109,061				
Washington Headquarters Services	999	918				
Total Research, Development, Test & Evaluation	25,998,380	29,047,458				51,745

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

26 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
The Joint Staff		109,061	148,613
Washington Headquarters Services		918	
Total Research, Development, Test & Evaluation	51,745	29,099,203	32,077,552

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 e Enactment****	S
1	0601000BR	DTRA Basic Research	01	14,244	11,828					U
2	0601101E	Defense Research Sciences	01	449,322	443,842					U
3	0601108D8Z	High Energy Laser Research Initiatives	01		20,342					U
4	0601110D8Z	Basic Research Initiatives	01	72,992	76,702					U
5	0601117E	Basic Operational Medical Research Science	01	57,542	77,518					U
6	0601120D8Z	National Defense Education Program	01	132,522	144,841					U
7	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	77,017	99,902					U
8	0601384BP	Chemical and Biological Defense Program	01	46,644	37,208					U
		Basic Research		850,283	912,183					
9	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	02	1,280						U
10	0602000D8Z	Joint Munitions Technology	02	24,098	20,529					U
11	0602115E	Biomedical Technology	02	98,319	108,698					U
12	0602128D8Z	Promotion and Protection Strategies	02							U
13	0602134BR	Improvised Threat Reduction Applied Research	02	3,699						U
14	0602230D8Z	Defense Technology Innovation	02	17,109	17,428					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
1	0601000BR	DTRA Basic Research	01		11,828	11,584	U
2	0601101E	Defense Research Sciences	01		443,842	401,870	U
3	0601108D8Z	High Energy Laser Research Initiatives	01		20,342	16,257	U
4	0601110D8Z	Basic Research Initiatives	01		76,702	62,386	U
5	0601117E	Basic Operational Medical Research Science	01		77,518	80,874	U
6	0601120D8Z	National Defense Education Program	01		144,841	132,347	U
7	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01		99,902	33,288	U
8	0601384BP	Chemical and Biological Defense Program	01		37,208	34,734	U
		Basic Research			912,183	773,340	
9	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	02				U
10	0602000D8Z	Joint Munitions Technology	02		20,529	18,961	U
11	0602115E	Biomedical Technology	02		108,698	106,958	U
12	0602128D8Z	Promotion and Protection Strategies	02			3,275	U
13	0602134BR	Improvised Threat Reduction Applied Research	02				U
14	0602230D8Z	Defense Technology Innovation	02		17,428	20,634	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
15 0602234D8Z	Lincoln Laboratory Research Program	02	38,338	55,516					U
16 0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	51,675	58,982					U
17 0602303E	Information & Communications Technology	02	405,789	480,363					U
18 0602383E	Biological Warfare Defense	02	26,082	31,421					U
19 0602384BP	Chemical and Biological Defense Program	02	189,042	209,956					U
20 0602668D8Z	Cyber Security Research	02	24,328	25,331					U
21 0602675D8Z	Social Sciences for Environmental Security	02							U
22 0602702E	Tactical Technology	02	230,211	207,515					U
23 0602715E	Materials and Biological Technology	02	238,215	308,024					U
24 0602716E	Electronics Technology	02	307,791	393,384					U
25 0602718BR	Counter Weapons of Mass Destruction Applied Research	02	159,004	197,011					U
26 0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	9,216	9,571					U
27 0602890D8Z	High Energy Laser Research	02		45,852					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
15	0602234D8Z	Lincoln Laboratory Research Program	02		55,516	46,159	U
16	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02		58,982	67,666	U
17	0602303E	Information & Communications Technology	02		480,363	388,270	U
18	0602383E	Biological Warfare Defense	02		31,421	23,059	U
19	0602384BP	Chemical and Biological Defense Program	02		209,956	256,197	U
20	0602668D8Z	Cyber Security Research	02		25,331	17,264	U
21	0602675D8Z	Social Sciences for Environmental Security	02			4,000	U
22	0602702E	Tactical Technology	02		207,515	221,883	U
23	0602715E	Materials and Biological Technology	02		308,024	352,976	U
24	0602716E	Electronics Technology	02		393,384	557,745	U
25	0602718BR	Counter Weapons of Mass Destruction Applied Research	02		197,011	192,162	U
26	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02		9,571	11,030	U
27	0602890D8Z	High Energy Laser Research	02		45,852	48,587	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S e c
					Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
28 1160401BB	SOF Technology Development	02	47,657	51,329					U
	Applied Research		1,871,853	2,220,910					
29 0603000D8Z	Joint Munitions Advanced Technology	03	21,625	30,140					U
30 0603121D8Z	SO/LIC Advanced Development	03	4,904	4,665					U
31 0603122D8Z	Combating Terrorism Technology Support	03	140,882	141,876					U
32 0603133D8Z	Foreign Comparative Testing	03	23,651	25,352					U
33 0603134BR	Counter Improvised-Threat Simulation	03	3,861						U
34 0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03	331,325	409,862					U
35 0603176BR	Advanced Concepts and Performance Assessment	03							U
36 0603176C	Advanced Concepts and Performance Assessment	03	49,069	40,000					U
37 0603180C	Advanced Research	03	29,621	47,966					U
38 0603183D8Z	Joint Hypersonic Technology Development &Transition	03		51,178					U
39 0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,809	19,003					U
40 0603286E	Advanced Aerospace Systems	03	216,283	194,043					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
28	1160401BB	SOF Technology Development	02		51,329	49,174	U
		Applied Research			2,220,910	2,386,000	
29	0603000D8Z	Joint Munitions Advanced Technology	03		30,140	34,065	U
30	0603121D8Z	SO/LIC Advanced Development	03		4,665	4,919	U
31	0603122D8Z	Combating Terrorism Technology Support	03		141,876	72,614	U
32	0603133D8Z	Foreign Comparative Testing	03		25,352	26,802	U
33	0603134BR	Counter Improvised-Threat Simulation	03				U
34	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03		409,862	395,721	U
35	0603176BR	Advanced Concepts and Performance Assessment	03			6,505	U
36	0603176C	Advanced Concepts and Performance Assessment	03		40,000	16,737	U
37	0603180C	Advanced Research	03		47,966	22,023	U
38	0603183D8Z	Joint Hypersonic Technology Development & Transition	03		51,178	52,156	U
39	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03		19,003	18,898	U
40	0603286E	Advanced Aerospace Systems	03		194,043	253,135	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 e Enactment****	S c
41 0603287E	Space Programs and Technology	03	144,463	181,524					U
42 0603288D8Z	Analytic Assessments	03	19,107	23,936					U
43 0603289D8Z	Advanced Innovative Analysis and Concepts	03	28,008	46,351					U
44 0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,168						U
45 0603294C	Common Kill Vehicle Technology	03	10,793						U
46 0603338D8Z	Defense Modernization and Prototyping	03	150,480	96,579					U
47 0603342D8Z	Defense Innovation Unit (DIU)	03	34,401	26,749					U
48 0603375D8Z	Technology Innovation	03	25,884	39,761					U
49 0603384BP	Chemical and Biological Defense Program - Advanced Development	03	184,348	197,824					U
50 0603527D8Z	RETRACT LARCH	03	90,918	98,862					U
51 0603618D8Z	Joint Electronic Advanced Technology	03	14,773	18,164					U
52 0603648D8Z	Joint Capability Technology Demonstrations	03	69,482	102,345					U
53 0603662D8Z	Networked Communications Capabilities	03	5,692	2,975					U
54 0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	237,098	255,244					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
41	0603287E	Space Programs and Technology	03		181,524	81,888	U
42	0603288D8Z	Analytic Assessments	03		23,936	24,052	U
43	0603289D8Z	Advanced Innovative Analysis and Concepts	03		46,351	53,890	U
44	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03				U
45	0603294C	Common Kill Vehicle Technology	03				U
46	0603338D8Z	Defense Modernization and Prototyping	03		96,579	141,561	U
47	0603342D8Z	Defense Innovation Unit (DIU)	03		26,749	42,925	U
48	0603375D8Z	Technology Innovation	03		39,761	109,535	U
49	0603384BP	Chemical and Biological Defense Program - Advanced Development	03		197,824	238,407	U
50	0603527D8Z	RETRACT LARCH	03		98,862	79,493	U
51	0603618D8Z	Joint Electronic Advanced Technology	03		18,164	19,218	U
52	0603648D8Z	Joint Capability Technology Demonstrations	03		102,345	114,100	U
53	0603662D8Z	Networked Communications Capabilities	03		2,975	3,168	U
54	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03		255,244	256,142	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
55 0603680S	Manufacturing Technology Program	03	66,632	81,262					U
56 0603712S	Generic Logistics R&D Technology Demonstrations	03	14,507	11,987					U
57 0603716D8Z	Strategic Environmental Research Program	03	79,661	91,571					U
58 0603720S	Microelectronics Technology Development and Support	03	131,718	202,475					U
59 0603727D8Z	Joint Warfighting Program	03	3,727	2,157					U
60 0603739E	Advanced Electronics Technologies	03	92,989	140,716					U
61 0603760E	Command, Control and Communications Systems	03	220,184	251,794					U
62 0603766E	Network-Centric Warfare Technology	03	628,540	655,771				12,500	U
63 0603767E	Sensor Technology	03	189,051	294,792					U
64 0603769D8Z	Distributed Learning Advanced Technology Development	03	6,588	6,056					U
65 0603781D8Z	Software Engineering Institute	03	12,128	14,631					U
66 0603924D8Z	High Energy Laser Advanced Technology Program	03	109,113	83,159					U
67 0603941D8Z	Test & Evaluation Science & Technology	03	171,891	464,850					U
68 0603950D8Z	National Security Innovation Network	03	38,532	36,203					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
55	0603680S	Manufacturing Technology Program	03		81,262	46,166	U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03		11,987	13,663	U
57	0603716D8Z	Strategic Environmental Research Program	03		91,571	58,411	U
58	0603720S	Microelectronics Technology Development and Support	03		202,475	139,833	U
59	0603727D8Z	Joint Warfighting Program	03		2,157	2,411	U
60	0603739E	Advanced Electronics Technologies	03		140,716	250,917	U
61	0603760E	Command, Control and Communications Systems	03		251,794	305,050	U
62	0603766E	Network-Centric Warfare Technology	03	12,500	668,271	678,562	U
63	0603767E	Sensor Technology	03		294,792	314,502	U
64	0603769D8Z	Distributed Learning Advanced Technology Development	03		6,056	201	U
65	0603781D8Z	Software Engineering Institute	03		14,631	13,417	U
66	0603924D8Z	High Energy Laser Advanced Technology Program	03		83,159	111,149	U
67	0603941D8Z	Test & Evaluation Science & Technology	03		464,850	315,090	U
68	0603950D8Z	National Security Innovation Network	03		36,203	22,028	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
69	0604055D8Z	Operational Energy Capability Improvement	03	15,413	108,482					U
70	0303367D8Z	Spectrum Access Research and Development	03	11,096						U
71	0909999D8Z	Financing for Cancelled Account Adjustments	03	903						U
72	1160402BB	SOF Advanced Technology Development	03	92,656	112,415					U
73	1206310SDA	Space Science and Technology Research and Development	03	69,914	172,638					U
		Advanced Technology Development		3,824,888	4,785,358				12,500	
74	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	31,634	28,525					U
75	0603600D8Z	WALKOFF	04	98,841	108,652					U
76	0603851D8Z	Environmental Security Technical Certification Program	04	72,135	122,737					U
77	0603881C	Ballistic Missile Defense Terminal Defense Segment	04	305,081	213,382					U
78	0603882C	Ballistic Missile Defense Midcourse Defense Segment	04	1,195,853	724,028					U
79	0603884BP	Chemical and Biological Defense Program - Dem/Val	04	78,825	133,945					U
80	0603884C	Ballistic Missile Defense Sensors	04	259,605	254,962					U

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se c
69	0604055D8Z	Operational Energy Capability Improvement	03		108,482	180,170	U
70	0303367D8Z	Spectrum Access Research and Development	03				U
71	0909999D8Z	Financing for Cancelled Account Adjustments	03				U
72	1160402BB	SOF Advanced Technology Development	03		112,415	118,877	U
73	1206310SDA	Space Science and Technology Research and Development	03		172,638		U
Advanced Technology Development				12,500	4,797,858	4,638,401	
74	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04		28,525	41,507	U
75	0603600D8Z	WALKOFF	04		108,652	133,795	U
76	0603851D8Z	Environmental Security Technical Certification Program	04		122,737	84,638	U
77	0603881C	Ballistic Missile Defense Terminal Defense Segment	04		213,382	190,216	U
78	0603882C	Ballistic Missile Defense Midcourse Defense Segment	04		724,028	667,524	U
79	0603884BP	Chemical and Biological Defense Program - Dem/Val	04		133,945	291,364	U
80	0603884C	Ballistic Missile Defense Sensors	04		254,962	231,134	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S
81	0603890C	BMD Enabling Programs	04	607,167	623,644					U
82	0603891C	Special Programs - MDA	04	380,204	413,374					U
83	0603892C	AEGIS BMD	04	861,809	639,549					U
84	0603896C	Ballistic Missile Defense Command and Control, Battle Management and Communicati	04	639,027	564,946					U
85	0603898C	Ballistic Missile Defense Joint Warfighter Support	04	49,261	50,594					U
86	0603904C	Missile Defense Integration & Operations Center (MDIOC)	04	54,026	52,403					U
87	0603906C	Regarding Trench	04	10,213	11,952					U
88	0603907C	Sea Based X-Band Radar (SBX)	04	120,063	147,241					U
89	0603913C	Israeli Cooperative Programs	04	300,000	300,000					U
90	0603914C	Ballistic Missile Defense Test	04	364,994	389,156					U
91	0603915C	Ballistic Missile Defense Targets	04	534,348	560,478					U
92	0603923D8Z	Coalition Warfare	04	9,975	5,074					U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04	428,127	336,485					U
94	0604016D8Z	Department of Defense Corrosion Program	04	5,240	3,241					U
95	0604102C	Guam Defense Development	04		112,400					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
81	0603890C	BMD Enabling Programs	04		623,644	591,847	U
82	0603891C	Special Programs - MDA	04		413,374	316,977	U
83	0603892C	AEGIS BMD	04		639,549	600,072	U
84	0603896C	Ballistic Missile Defense Command and Control, Battle Management and Communicati	04		564,946	589,374	U
85	0603898C	Ballistic Missile Defense Joint Warfighter Support	04		50,594	50,269	U
86	0603904C	Missile Defense Integration & Operations Center (MDIOC)	04		52,403	49,367	U
87	0603906C	Regarding Trench	04		11,952	12,146	U
88	0603907C	Sea Based X-Band Radar (SBX)	04		147,241	164,668	U
89	0603913C	Israeli Cooperative Programs	04		300,000	300,000	U
90	0603914C	Ballistic Missile Defense Test	04		389,156	367,824	U
91	0603915C	Ballistic Missile Defense Targets	04		560,478	559,513	U
92	0603923D8Z	Coalition Warfare	04		5,074	11,154	U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04		336,485	249,591	U
94	0604016D8Z	Department of Defense Corrosion Program	04		3,241	3,166	U
95	0604102C	Guam Defense Development	04		112,400	397,936	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
96	0604115C	Technology Maturation Initiatives	04	105,895	39,200					U
97	0604124D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) - MIP	04							U
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04	19,931						U
99	0604181C	Hypersonic Defense	04	267,589	287,796					U
100	0604250D8Z	Advanced Innovative Technologies	04	732,208	777,199					U
101	0604294D8Z	Trusted & Assured Microelectronics	04	489,251	704,091					U
102	0604331D8Z	Rapid Prototyping Program	04	89,318	137,349					U
103	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04	30,108	16,178					U
104	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	6,825	7,762					U
105	0604551BR	Catapult	04		7,166					U
106	0604555D8Z	Operational Energy Capability Improvement - Non S&T	04		23,069					U
107	0604672C	Homeland Defense Radar - Hawaii (HDR-H)	04	133,000	75,000					U
108	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,341	3,409					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
96	0604115C	Technology Maturation Initiatives	04		39,200		U
97	0604124D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) - MIP	04			33,950	U
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04				U
99	0604181C	Hypersonic Defense	04		287,796	225,477	U
100	0604250D8Z	Advanced Innovative Technologies	04		777,199	1,145,358	U
101	0604294D8Z	Trusted & Assured Microelectronics	04		704,091	647,226	U
102	0604331D8Z	Rapid Prototyping Program	04		137,349	179,189	U
103	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04		16,178	24,402	U
104	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04		7,762	2,691	U
105	0604551BR	Catapult	04		7,166	7,130	U
106	0604555D8Z	Operational Energy Capability Improvement - Non S&T	04		23,069	45,779	U
107	0604672C	Homeland Defense Radar - Hawaii (HDR-H)	04		75,000		U
108	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04		3,409	3,229	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
109 0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	18,115	17,439					U
110 0604873C	Long Range Discrimination Radar (LRDR)	04	135,088	133,335					U
111 0604874C	Improved Homeland Defense Interceptors	04	843,899	884,125					U
112 0604876C	Ballistic Missile Defense Terminal Defense Segment Test	04	1,000	32,697					U
113 0604878C	Aegis BMD Test	04	71,481	111,206					U
114 0604879C	Ballistic Missile Defense Sensor Test	04	64,245	77,428					U
115 0604880C	Land-Based SM-3 (LBSM3)	04	52,804	43,158					U
116 0604887C	Ballistic Missile Defense Midcourse Segment Test	04	67,071	61,424					U
117 0202057C	Safety Program Management	04		2,323					U
118 0300206R	Enterprise Information Technology Systems	04	2,118	2,568					U
119 0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	997						U
120 0305103C	Cyber Security Initiative	04	1,122	1,142					U
121 1206410SDA	Space Technology Development and Prototyping	04	187,953	1,204,179					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
--	-----	----	---	-----	-----	-----	-
109	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		17,439	40,699	U
110	0604873C	Long Range Discrimination Radar (LRDR)	04		133,335	75,120	U
111	0604874C	Improved Homeland Defense Interceptors	04		884,125	1,833,357	U
112	0604876C	Ballistic Missile Defense Terminal Defense Segment Test	04		32,697	69,762	U
113	0604878C	Aegis BMD Test	04		111,206	182,776	U
114	0604879C	Ballistic Missile Defense Sensor Test	04		77,428	88,326	U
115	0604880C	Land-Based SM-3 (LBSM3)	04		43,158	27,678	U
116	0604887C	Ballistic Missile Defense Midcourse Segment Test	04		61,424	84,075	U
117	0202057C	Safety Program Management	04		2,323	2,417	U
118	0300206R	Enterprise Information Technology Systems	04		2,568	2,664	U
119	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04				U
120	0305103C	Cyber Security Initiative	04		1,142	1,165	U
121	1206410SDA	Space Technology Development and Prototyping	04		1,204,179		U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
122 1206893C	Space Tracking & Surveillance System	04	33,356	15,176					U
123 1206895C	Ballistic Missile Defense System Space Programs	04	161,267	292,811					U
Advanced Component Development & Prototypes			9,924,410	10,753,998					
124 0604123D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) - Dem/Val Activities	05							U
125 0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	7,045	5,650					U
126 0604165D8Z	Prompt Global Strike Capability Development	05	89,156						U
127 0604384BP	Chemical and Biological Defense Program - EMD	05	353,472	299,848					U
128 0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	49,458	21,292					U
129 0605000BR	Counter Weapons of Mass Destruction Systems Development	05	15,250	14,063					U
130 0605013BL	Information Technology Development	05	2,789	4,265					U
131 0605021SE	Homeland Personnel Security Initiative	05	7,287	7,205					U
132 0605022D8Z	Defense Exportability Program	05	12,649	5,416					U
133 0605027D8Z	OUSD(C) IT Development Initiatives	05	9,883	16,892					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority -  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
122	1206893C	Space Tracking & Surveillance System	04		15,176		U
123	1206895C	Ballistic Missile Defense System Space Programs	04		292,811	129,957	U
Advanced Component Development & Prototypes					10,753,998	10,756,509	
124	0604123D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) - Dem/Val Activities	05			273,340	U
125	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05		5,650	6,482	U
126	0604165D8Z	Prompt Global Strike Capability Development	05				U
127	0604384BP	Chemical and Biological Defense Program - EMD	05		299,848	312,148	U
128	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05		21,292	9,120	U
129	0605000BR	Counter Weapons of Mass Destruction Systems Development	05		14,063	14,403	U
130	0605013BL	Information Technology Development	05		4,265	1,244	U
131	0605021SE	Homeland Personnel Security Initiative	05		7,205	6,191	U
132	0605022D8Z	Defense Exportability Program	05		5,416	10,145	U
133	0605027D8Z	OUSD(C) IT Development Initiatives	05		16,892	5,938	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
134	0605070S	DOD Enterprise Systems Development and Demonstration	05	1,327	654					U
135	0605075D8Z	CMO Policy and Integration	05	1,295						U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,403	31,136					U
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05	5,500	5,500					U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	7,970	7,108					U
139	0605294D8Z	Trusted & Assured Microelectronics	05	104,180	113,536					U
140	0605772D8Z	Nuclear Command, Control, & Communications	05	3,547	3,969					U
141	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	3,152	2,214					U
142	0305310D8Z	CWMD Systems: System Development and Demonstration	05	19,817	20,132					U
		System Development & Demonstration		715,180	558,880					
143	0603829J	Joint Capability Experimentation	06	10,730	8,444					U
144	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	9,586	7,167					U
145	0604875D8Z	Joint Systems Architecture Development	06	8,180	7,815					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
134	0605070S	DOD Enterprise Systems Development and Demonstration	05		654		U
135	0605075D8Z	CMO Policy and Integration	05				U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05		31,136	23,171	U
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05		5,500	14,093	U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05		7,108	6,949	U
139	0605294D8Z	Trusted & Assured Microelectronics	05		113,536	302,963	U
140	0605772D8Z	Nuclear Command, Control, & Communications	05		3,969	3,758	U
141	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05		2,214	8,121	U
142	0305310D8Z	CWMD Systems: System Development and Demonstration	05		20,132	16,048	U
		System Development & Demonstration			558,880	1,014,114	
143	0603829J	Joint Capability Experimentation	06		8,444	12,452	U
144	0604774D8Z	Defense Readiness Reporting System (DRRS)	06		7,167	8,902	U
145	0604875D8Z	Joint Systems Architecture Development	06		7,815	6,610	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
146 0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	407,678	994,151					U
147 0604942D8Z	Assessments and Evaluations	06	18,296	17,879					U
148 0605001E	Mission Support	06	75,246	73,145					U
149 0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	76,146	71,410					U
150 0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	50,255	52,671					U
151 0605128D8Z	Classified Program USD(P)	06	110,000	108,112					U
152 0605142D8Z	Systems Engineering	06	44,168	39,904					U
153 0605151D8Z	Studies and Analysis Support - OSD	06	6,720	4,612					U
154 0605161D8Z	Nuclear Matters-Physical Security	06	16,013	14,348					U
155 0605170D8Z	Support to Networks and Information Integration	06	9,230	4,759					U
156 0605200D8Z	General Support to OUSD(Intelligence and Security)	06	7,904	10,452					U
157 0605384BP	Chemical and Biological Defense Program	06	125,455	115,503					U
158 0605502BP	Small Business Innovative Research - Chemical Biological Def	06	26,967						U
159 0605502BR	Small Business Innovation Research	06	14,241						U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	----	---	-----	-----	-----	c
146	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06		994,151	819,358	U
147	0604942D8Z	Assessments and Evaluations	06		17,879	4,607	U
148	0605001E	Mission Support	06		73,145	86,869	U
149	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06		71,410	126,079	U
150	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06		52,671	53,278	U
151	0605128D8Z	Classified Program USD(P)	06		108,112		U
152	0605142D8Z	Systems Engineering	06		39,904	39,009	U
153	0605151D8Z	Studies and Analysis Support - OSD	06		4,612	5,716	U
154	0605161D8Z	Nuclear Matters-Physical Security	06		14,348	15,379	U
155	0605170D8Z	Support to Networks and Information Integration	06		4,759	9,449	U
156	0605200D8Z	General Support to OUSD(Intelligence and Security)	06		10,452	6,112	U
157	0605384BP	Chemical and Biological Defense Program	06		115,503	124,475	U
158	0605502BP	Small Business Innovative Research - Chemical Biological Def	06				U
159	0605502BR	Small Business Innovation Research	06				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 e Enactment****	S c
160 0605502C	Small Business Innovation Research - MDA	06	114,633						U
161 0605502D8Z	Small Business Innovative Research	06	156,944						U
162 0605502E	Small Business Innovative Research	06	109,867						U
163 0605502S	Small Business Innovative Research	06	8,606	11,500					U
164 0605502SDA	Small Business Innovative Research	06	9,249						U
165 0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	3,582	3,628					U
166 0605797D8Z	Maintaining Technology Advantage	06	24,735	26,807					U
167 0605798D8Z	Defense Technology Analysis	06	22,544	35,149					U
168 0605801KA	Defense Technical Information Center (DTIC)	06	58,810	61,453					U
169 0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	29,420	21,762					U
170 0605804D8Z	Development Test and Evaluation	06	26,240	27,280					U
171 0605898E	Management HQ - R&D	06	14,154	12,740					U
172 0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06	2,837	3,549					U
173 0606100D8Z	Budget and Program Assessments	06	10,729	13,994					U
174 0606114D8Z	Analysis Working Group (AWG) Support	06							U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	State
---	-----	----	---	-----	-----	-----	---
160	0605502C	Small Business Innovation Research - MDA	06				U
161	0605502D8Z	Small Business Innovative Research	06				U
162	0605502E	Small Business Innovative Research	06				U
163	0605502S	Small Business Innovative Research	06		11,500		U
164	0605502SDA	Small Business Innovative Research	06				U
165	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06		3,628	3,820	U
166	0605797D8Z	Maintaining Technology Advantage	06		26,807	35,414	U
167	0605798D8Z	Defense Technology Analysis	06		35,149	56,114	U
168	0605801KA	Defense Technical Information Center (DTIC)	06		61,453	63,184	U
169	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06		21,762	23,757	U
170	0605804D8Z	Development Test and Evaluation	06		27,280	26,652	U
171	0605898E	Management HQ - R&D	06		12,740	14,636	U
172	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06		3,549	3,518	U
173	0606100D8Z	Budget and Program Assessments	06		13,994	15,244	U
174	0606114D8Z	Analysis Working Group (AWG) Support	06			4,700	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S
175	0606135D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) Activities	06							U
176	0606225D8Z	ODNA Technology and Resource Analysis	06	3,200	4,897					U
177	0606300D8Z	Defense Science Board	06							U
178	0606589D8W	Defense Digital Service (DDS) Development Support	06	999	918					U
179	0606771D8Z	Cyber Resiliency and Cybersecurity Policy	06		31,460					U
180	0606853BR	Management, Technical & International Support	06							U
181	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	2,985	2,925					U
182	0204571J	Joint Staff Analytical Support	06	3,058	977					U
183	0208045K	C4I Interoperability	06	21,516	55,361					U
186	0303140SE	Information Systems Security Program	06	1,112	853					U
187	0303166J	Support to Information Operations (IO) Capabilities	06	545						U
188	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	984	850					U
189	0305172K	Combined Advanced Applications	06	7,462	15,696					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
175	0606135D8Z	Chief Digital and Artificial Intelligence Officer (CDAO) Activities	06			13,132	U
176	0606225D8Z	ODNA Technology and Resource Analysis	06		4,897	3,323	U
177	0606300D8Z	Defense Science Board	06			2,532	U
178	0606589D8W	Defense Digital Service (DDS) Development Support	06		918		U
179	0606771D8Z	Cyber Resiliency and Cybersecurity Policy	06		31,460	32,306	U
180	0606853BR	Management, Technical & International Support	06			12,354	U
181	0203345D8Z	Defense Operations Security Initiative (DOSI)	06		2,925	3,034	U
182	0204571J	Joint Staff Analytical Support	06		977	4,332	U
183	0208045K	C4I Interoperability	06		55,361	69,698	U
186	0303140SE	Information Systems Security Program	06		853		U
187	0303166J	Support to Information Operations (IO) Capabilities	06				U
188	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06		850		U
189	0305172K	Combined Advanced Applications	06		15,696	16,171	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c -
191 0305208K	Distributed Common Ground/Surface Systems	06	3,112	3,073					U
192 0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06	29,292	29,530					U
193 0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06	100	689					U
194 0901598C	Management HQ - MDA	06	26,902	24,102					U
195 0903235K	Joint Service Provider (JSP)	06	608	2,645					U
9999 9999999999	Classified Programs		41,583	37,520					U
	Management Support		1,752,623	1,959,730					
196 0604130V	Enterprise Security System (ESS)	07	9,681	5,355					U
197 0604532K	Joint Artificial Intelligence	07	128,239	148,447					U
198 0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	1,756						U
199 0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	316						U
200 0607210D8Z	Industrial Base Analysis and Sustainment Support	07	170,207	335,410					U
201 0607310D8Z	CWMD Systems: Operational Systems Development	07	16,332	18,616					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
191	0305208K	Distributed Common Ground/Surface Systems	06		3,073	3,072	U
192	0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06		29,530	37,852	U
193	0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06		689	716	U
194	0901598C	Management HQ - MDA	06		24,102	25,259	U
195	0903235K	Joint Service Provider (JSP)	06		2,645	3,141	U
9999	9999999999	Classified Programs			37,520	37,841	U
		Management Support			1,959,730	1,830,097	
196	0604130V	Enterprise Security System (ESS)	07		5,355		U
197	0604532K	Joint Artificial Intelligence	07		148,447		U
198	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07				U
199	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07				U
200	0607210D8Z	Industrial Base Analysis and Sustainment Support	07		335,410	588,094	U
201	0607310D8Z	CWMD Systems: Operational Systems Development	07		18,616	15,427	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N S P.L. 117-103 e Enactment**** c
202 0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	3,992	7,398				U
203 0607384BP	Chemical and Biological Defense (Operational Systems Development)	07	38,475	58,261				U
204 0208043J	Planning and Decision Aid System (PDAS)	07	3,039					U
205 0208045K	C4I Interoperability	07	75,853					U
209 0302019K	Defense Info Infrastructure Engineering and Integration	07	17,080	16,233				U
210 0303126K	Long-Haul Communications - DCS	07	10,343	10,275				U
211 0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	5,392	4,892				U
212 0303136G	Key Management Infrastructure (KMI)	07	73,356	83,751				U
213 0303140D8Z	Information Systems Security Program	07	46,529	69,191				U
214 0303140G	Information Systems Security Program	07	394,713	447,745				U
215 0303140K	Information Systems Security Program	07	6,217	5,707				U
216 0303150K	Global Command and Control System	07	73,630	4,150				U
217 0303153K	Defense Spectrum Organization	07	18,123	19,302				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

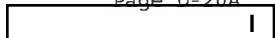
Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	----	---	-----	-----	-----	-
202	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07		7,398	8,317	U
203	0607384BP	Chemical and Biological Defense (Operational Systems Development)	07		58,261	68,030	U
204	0208043J	Planning and Decision Aid System (PDAS)	07				U
205	0208045K	C4I Interoperability	07				U
209	0302019K	Defense Info Infrastructure Engineering and Integration	07		16,233	19,145	U
210	0303126K	Long-Haul Communications - DCS	07		10,275	13,195	U
211	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07		4,892	5,746	U
212	0303136G	Key Management Infrastructure (KMI)	07		83,751	92,018	U
213	0303140D8Z	Information Systems Security Program	07		69,191	43,135	U
214	0303140G	Information Systems Security Program	07		447,745	593,831	U
215	0303140K	Information Systems Security Program	07		5,707	7,005	U
216	0303150K	Global Command and Control System	07		4,150	10,020	U
217	0303153K	Defense Spectrum Organization	07		19,302	19,708	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S
218	0303167K	Pre-Auction Spectrum Relocation Fund	07	247						U
219	0303228K	Joint Regional Security Stacks (JRSS)	07	12,433	9,342					U
220	0303267K	Auctioned Spectrum Relocation Fund	07	6,858						U
221	0303430V	Federal Investigative Services Information Technology	07		15,326					U
222	0303667K	Citizen Broadband Radio System	07	16,501						U
223	0303767D8Z	AMBIT - Pre-Auctioned SRF	07	15,420						U
226	0305104D8Z	Defense Industrial Base (DIB) Cyber Security Initiative	07							U
229	0305128V	Security and Investigative Activities	07	5,700	8,800					U
230	0305133V	Industrial Security Activities	07							U
233	0305146V	Defense Joint Counterintelligence Activities	07	4,000	3,820					U
234	0305172D8Z	Combined Advanced Applications	07							U
235	0305172K	Combined Advanced Applications	07	12,582						U
237	0305186D8Z	Policy R&D Programs	07	6,322	4,591					U
238	0305199D8Z	Net Centricity	07	20,994	13,132					U
240	0305208BB	Distributed Common Ground/Surface Systems	07	6,062	5,994					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
218	0303167K	Pre-Auction Spectrum Relocation Fund	07				U
219	0303228K	Joint Regional Security Stacks (JRSS)	07		9,342		U
220	0303267K	Auctioned Spectrum Relocation Fund	07				U
221	0303430V	Federal Investigative Services Information Technology	07		15,326	5,197	U
222	0303667K	Citizen Broadband Radio System	07				U
223	0303767D8Z	AMBIT - Pre-Auctioned SRF	07				U
226	0305104D8Z	Defense Industrial Base (DIB) Cyber Security Initiative	07			10,000	U
229	0305128V	Security and Investigative Activities	07		8,800	450	U
230	0305133V	Industrial Security Activities	07			1,800	U
233	0305146V	Defense Joint Counterintelligence Activities	07		3,820	4,622	U
234	0305172D8Z	Combined Advanced Applications	07			49,380	U
235	0305172K	Combined Advanced Applications	07				U
237	0305186D8Z	Policy R&D Programs	07		4,591	6,214	U
238	0305199D8Z	Net Centricity	07		13,132	17,917	U
240	0305208BB	Distributed Common Ground/Surface Systems	07		5,994	6,095	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S
243	0305208K	Distributed Common Ground/Surface Systems	07	2,955						U
246	0305245D8Z	Intelligence Capabilities and Innovation Investments	07		60,000					U
247	0305251K	Cyberspace Operations Forces and Force Support	07							U
248	0305327V	Insider Threat	07	3,000	3,000					U
249	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,140	1,273					U
257	0708012K	Logistics Support Activities	07	1,654	1,690					U
258	0708012S	Pacific Disaster Centers	07	1,720	5,733					U
259	0708047S	Defense Property Accountability System	07	7,034	6,157					U
260	0903235K	Joint Service Provider (JSP)	07	1,405						U
261	1105219BB	MQ-9 UAV	07	20,489	63,065					U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07	26,995						U
263	1160403BB	Aviation Systems	07	239,991	173,537					U
264	1160405BB	Intelligence Systems Development	07	26,519	30,399					U
265	1160408BB	Operational Enhancements	07	164,711	179,230					U
266	1160431BB	Warrior Systems	07	67,226	125,473					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
243	0305208K	Distributed Common Ground/Surface Systems	07				U
246	0305245D8Z	Intelligence Capabilities and Innovation Investments	07		60,000	4,575	U
247	0305251K	Cyberspace Operations Forces and Force Support	07			2,497	U
248	0305327V	Insider Threat	07		3,000	9,403	U
249	0305387D8Z	Homeland Defense Technology Transfer Program	07		1,273	1,864	U
257	0708012K	Logistics Support Activities	07		1,690	1,620	U
258	0708012S	Pacific Disaster Centers	07		5,733	1,875	U
259	0708047S	Defense Property Accountability System	07		6,157	3,264	U
260	0903235K	Joint Service Provider (JSP)	07				U
261	1105219BB	MQ-9 UAV	07		63,065	14,000	U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07				U
263	1160403BB	Aviation Systems	07		173,537	179,499	U
264	1160405BB	Intelligence Systems Development	07		30,399	75,136	U
265	1160408BB	Operational Enhancements	07		179,230	142,900	U
266	1160431BB	Warrior Systems	07		125,473	129,133	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S
267	1160432BB	Special Programs	07	7,220	10,486					U
268	1160434BB	Unmanned ISR	07	17,154	18,006					U
269	1160480BB	SOF Tactical Vehicles	07	13,736	7,703					U
270	1160483BB	Maritime Systems	07	66,037	62,630					U
271	1160489BB	Global Video Surveillance Activities	07	4,602						U
272	1160490BB	Operational Enhancements Intelligence	07	11,603	15,990					U
273	1203610K	Teleport Program	07	2,699						U
9999	9999999999	Classified Programs		4,818,025	5,374,289				11,345	U
		Operational Systems Development		6,707,307	7,434,399					
274	0608197V	National Background Investigation Services - Software Pilot Program	08	105,673	123,570					U
275	0608648D8Z	Acquisition Visibility - Software Pilot Program	08	16,220	18,204					U
276	0608775D8Z	Accelerate the Procurement and Fielding of Innovative Technologies (APFIT)	08							U
277	0303150K	Global Command and Control System	08		32,774					U
281	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08	229,943	247,452				27,900	U

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
267	1160432BB	Special Programs	07		10,486	518	U
268	1160434BB	Unmanned ISR	07		18,006	3,354	U
269	1160480BB	SOF Tactical Vehicles	07		7,703	13,594	U
270	1160483BB	Maritime Systems	07		62,630	82,645	U
271	1160489BB	Global Video Surveillance Activities	07				U
272	1160490BB	Operational Enhancements Intelligence	07		15,990	7,583	U
273	1203610K	Teleport Program	07			1,270	U
9999	9999999999	Classified Programs		11,345	5,385,634	7,854,604	U
		Operational Systems Development			7,445,744	10,114,680	
274	0608197V	National Background Investigation Services - Software Pilot Program	08		123,570	132,524	U
275	0608648D8Z	Acquisition Visibility - Software Pilot Program	08		18,204	17,123	U
276	0608775D8Z	Accelerate the Procurement and Fielding of Innovative Technologies (APFIT)	08			100,000	U
277	0303150K	Global Command and Control System	08		32,774	34,987	U
281	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08	27,900	275,352		U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N Division S P.L. 117-103 Enactment****	
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08							U
9999	9999999999	Classified Programs								U
		Software And Digital Technology Pilot Progr		351,836	422,000				27,900	
Total Research, Development, Test & Eval, DW				25,998,380	29,047,458				51,745	

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08			14,749	U
9999	9999999999	Classified Programs				265,028	U
		Software And Digital Technology Pilot Progr		27,900	449,900	564,411	
Total Research, Development, Test & Eval, DW				51,745	29,099,203	32,077,552	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Management Support	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				
<u>Summary Recap of FYDP Programs</u>						
Research and Development	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194
Summary Recap of FYDP Programs -----			
Research and Development		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
1	06051180TE	Operational Test and Evaluation	06	113,133	105,394					U
2	06051310TE	Live Fire Test and Evaluation	06	74,048	103,549					U
3	06058140TE	Operational Test Activities and Analyses	06	69,939	67,648					U
		Management Support		257,120	276,591					
Total Operational Test & Eval, Defense				257,120	276,591					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	06051180TE	Operational Test and Evaluation	06		105,394	119,529	U
2	06051310TE	Live Fire Test and Evaluation	06		103,549	99,947	U
3	06058140TE	Operational Test Activities and Analyses	06		67,648	57,718	U
		Management Support			276,591	277,194	
Total Operational Test & Eval, Defense					276,591	277,194	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Inspector General  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Less Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
RDT&E	1,098	2,365				
Total Research, Development, Test & Evaluation	1,098	2,365				
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>						
Administration and Associated Activities	1,098	2,365				
Total Research, Development, Test & Evaluation	1,098	2,365				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Inspector General  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
<u>RDT&amp;E</u>			
Total Research, Development, Test & Evaluation		2,365	1,864
		2,365	1,864
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>			
<u>Administration and Associated Activities</u>			
Total Research, Development, Test & Evaluation		2,365	1,864
		2,365	1,864

UNCLASSIFIED

Inspector General  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0107D Office of the Inspector General

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
1	0901517X	Inspector General, DoD, Audit, Intelligence and Non-Criminal Investigative Activ	02	1,098	2,365					U
		RDT&E		1,098	2,365					
Total Office of the Inspector General				1,098	2,365					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Inspector General  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0107D Office of the Inspector General

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0901517X	Inspector General, DoD, Audit, Intelligence and Non-Criminal Investigative Activ	02		2,365	1,864	U
		RDT&E			2,365	1,864	
Total Office of the Inspector General					2,365	1,864	

UNCLASSIFIED

Defense Health Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
RDT&E	2,395,081	2,633,488				
Total Research, Development, Test & Evaluation	2,395,081	2,633,488				
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>						
Research and Development	2,395,081	2,633,488				
Total Research, Development, Test & Evaluation	2,395,081	2,633,488				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Health Agency  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Non RDT&E Title  
(Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
RDT&E		2,633,488	909,994
Total Research, Development, Test & Evaluation		2,633,488	909,994
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>			
Research and Development		2,633,488	909,994
Total Research, Development, Test & Evaluation		2,633,488	909,994

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

UNCLASSIFIED

Defense Health Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0130D Defense Health Program

Program Line Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
1 0601117DHA	Basic Operational Medical Research Science	02	8,913	9,091					U
2 0602115DHA	Applied Biomedical Technology	02	72,573	84,024					U
3 0602787DHA	Medical Technology	02	1,411	1,439					U
4 0603002DHA	Medical Advanced Technology	02	352	359					U
5 0603115DHA	Medical Development	02	1,994,152	2,193,397					U
6 0604110DHA	Medical Products Support and Advanced Concept Development	02	149,831	176,860					U
7 0605013DHA	Information Technology Development	02	16,344	10,866					U
8 0605026DHA	Information Technology Development- DoD Healthcare Management System Modernizati	02	18,336	15,751					U
9 0605045DHA	Joint Operational Medicine Information System	02	46,214	52,948					U
10 0605145DHA	Medical Products and Support Systems Development	02	21,068	21,489					U
11 0606105DHA	Medical Program-Wide Activities	02	48,672	49,645					U
12 0607100DHA	Medical Products and Capabilities Enhancement Activities	02	17,215	17,619					U
RDT&E			2,395,081	2,633,488					
Total Defense Health Program			2,395,081	2,633,488					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Health Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0130D Defense Health Program

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0601117DHA	Basic Operational Medical Research Science	02		9,091	39,568	U
2	0602115DHA	Applied Biomedical Technology	02		84,024	174,009	U
3	0602787DHA	Medical Technology	02		1,439	1,468	U
4	0603002DHA	Medical Advanced Technology	02		359	366	U
5	0603115DHA	Medical Development	02		2,193,397	320,496	U
6	0604110DHA	Medical Products Support and Advanced Concept Development	02		176,860	166,960	U
7	0605013DHA	Information Technology Development	02		10,866	9,834	U
8	0605026DHA	Information Technology Development- DoD Healthcare Management System Modernizati	02		15,751	12,024	U
9	0605045DHA	Joint Operational Medicine Information System	02		52,948	18,082	U
10	0605145DHA	Medical Products and Support Systems Development	02		21,489	64,030	U
11	0606105DHA	Medical Program-Wide Activities	02		49,645	85,186	U
12	0607100DHA	Medical Products and Capabilities Enhancement Activities	02		17,619	17,971	U
RDT&E					2,633,488	909,994	
Total Defense Health Program					2,633,488	909,994	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51



UNCLASSIFIED

Department of the Army  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Research, Development, Test, And Evaluation	942,493	1,000,131				
Total Research, Development, Test & Evaluation	942,493	1,000,131				
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>						
Central Supply and Maintenance	942,493	1,000,131				
Total Research, Development, Test & Evaluation	942,493	1,000,131				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of the Army  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Research, Development, Test, And Evaluation		1,000,131	975,206
Total Research, Development, Test & Evaluation		1,000,131	975,206
<u>Summary Recap of Non-RDT&amp;E Title FYDP Programs</u>			
Central Supply and Maintenance		1,000,131	975,206
Total Research, Development, Test & Evaluation		1,000,131	975,206

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

UNCLASSIFIED

Department of the Army  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0390D Chem Agents & Munitions Destruction

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	
						Division B Division C P.L.117-43 Enactment*	Division B Division B P.L.117-70 Enactment**	Division A Division A P.L. 117-86 Enactment***	Division N Division N P.L. 117-103 Enactment****	S S e c
1	0708081D	Chemical Materials Agency	02	6,494	6,120					U
2	0708083D	Assembled Chemical Weapons Alternatives	02	935,999	994,011					U
		Research, Development, Test, And Evaluation		942,493	1,000,131					
Total Chem Agents & Munitions Destruction				942,493	1,000,131					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 26, 2022 at 09:04:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of the Army  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Non RDT&E Title  
 (Dollars in Thousands)

26 Apr 2022

Appropriation: 0390D Chem Agents & Munitions Destruction

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0708081D	Chemical Materials Agency	02		6,120	3,464	U
2	0708083D	Assembled Chemical Weapons Alternatives	02		994,011	971,742	U
Research, Development, Test, And Evaluation					1,000,131	975,206	
Total Chem Agents & Munitions Destruction					1,000,131	975,206	

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
1	01	0601000BR	DTRA Basic Research.....	Volume 5 - 569

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
13	02	0602134BR	Improvised Threat Reduction Applied Research.....	Volume 5 - 575
25	02	0602718BR	Counter Weapons of Mass Destruction Applied Research.....	Volume 5 - 581
28	02	1160401BB	SOF Technology Development.....	Volume 5 - 1001

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
33	03	0603134BR	Counter Improvised-Threat Simulation.....	Volume 5 - 597

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
34	03	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development.....	Volume 5 - 601
35	03	0603176BR	Advanced Concepts and Performance Assessment.....	Volume 5 - 619
55	03	0603680S	Manufacturing Technology Program (ManTech).....	Volume 5 - 357
56	03	0603712S	Logistics Research and Development Technology (Log R&D).....	Volume 5 - 383
58	03	0603720S	Microelectronics Technology Development and Support (DMEA).....	Volume 5 - 403
72	03	1160402BB	SOF Advanced Technology Development.....	Volume 5 - 1007
73	03	1206310SDA	Space Science and Technology Research and Development.....	Volume 5 - 833

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
98	04	0604134BR	Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing.....	Volume 5 - 623
105	04	0604551BR	Catapult.....	Volume 5 - 653
109	04	0604826J	Joint C5 Capability Development, Integration, and Interoperability Assessments.....	Volume 5 - 903
118	04	0300206R	Enterprise Information Technology System.....	Volume 5 - 21
121	04	1206410SDA	Space Technology Development and Prototyping.....	Volume 5 - 837

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
129	05	0605000BR	Counter Weapons of Mass Destruction Systems Development.....	Volume 5 - 663
130	05	0605013BL	Information Technology Development.....	Volume 5 - 47
131	05	0605021SE	Homeland Personnel Security Initiative.....	Volume 5 - 717
134	05	0605070S	DOD Enterprise Systems Development and Demonstration.....	Volume 5 - 415
136	05	0605080S	Defense Agencies Initiative (DAI) - Financial System.....	Volume 5 - 421
137	05	0605141BR	Mission Assurance Risk Management System (MARMS).....	Volume 5 - 679

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
143	06	0603829J	Joint Capability Experimentation.....	Volume 5 - 929
150	06	0605126J	Joint Integrated Air & Missile Defense Organization (JIAMDO).....	Volume 5 - 933
159	06	0605502BR	Small Business Innovation Research.....	Volume 5 - 689
163	06	0605502S	Small Business Innovative Research (SBIR).....	Volume 5 - 431
164	06	0605502SDA	Small Business Innovation Research (SBIR).....	Volume 5 - 875

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
168	06	0605801KA	Defense Technical Information Center.....	Volume 5 - 513
169	06	0605803SE	R&D in Support of DOD Enlistment, Testing and Evaluation.....	Volume 5 - 733
172	06	0605998KA	Management HQ - Defense Technical Information Center (DTIC).....	Volume 5 - 527
178	06	0606589D8W	Defense Digital Service (DDS) Development Support.....	Volume 5 - 1313
180	06	0606853BR	Management Technical and International Support.....	Volume 5 - 693
182	06	0204571J	Joint Staff Analytical Support.....	Volume 5 - 943
183	06	0208045K	C4I Interoperability.....	Volume 5 - 169
186	06	0303140SE	DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation.....	Volume 5 - 753
189	06	0305172K	Combined Advanced Applications.....	Volume 5 - 177
191	06	0305208K	Distributed Common Ground/Surface Systems.....	Volume 5 - 181
192	06	0804768J	Joint Training, Exercise and Evaluation Program (JTEEP).....	Volume 5 - 947
193	06	0808709SE	Defense Equal Opportunity Management Institute (DEOMI).....	Volume 5 - 759
195	06	0903235K	Joint Service Provider.....	Volume 5 - 185

**UNCLASSIFIED**



**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
196	07	0604130V	Enterprise Security System (ESS).....	Volume 5 - 91
197	07	0604532K	Joint Artificial Intelligence Center (JAIC).....	Volume 5 - 189
198	07	0605127T	Partner Outreach and Collaboration Support (POCS).....	Volume 5 - 469
199	07	0605147T	Overseas Humanitarian Assistance Shared Information System (OHAISIS).....	Volume 5 - 477
202	07	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)..	Volume 5 - 483
209	07	0302019K	Defense Info. Infrastructure Engineering and Integration.....	Volume 5 - 197
210	07	0303126K	Long-Haul Communications - DCS.....	Volume 5 - 223
211	07	0303131K	Minimum Essential Emergency Communications Network (MEECN).....	Volume 5 - 237
215	07	0303140K	Information Systems Security Program.....	Volume 5 - 243
216	07	0303150K	Global Command and Control System.....	Volume 5 - 253
217	07	0303153K	Defense Spectrum Organization.....	Volume 5 - 265
218	07	0303167K	Pre-Auctioned Spectrum Relocation Fund.....	Volume 5 - 277
219	07	0303228K	Joint Information Environment.....	Volume 5 - 283
221	07	0303430V	Federal Investigative Services Information Technology.....	Volume 5 - 99
224	07	0303267K	Auctioned Spectrum Relocation Fund.....	Volume 5 - 291
229	07	0305128V	Security and Investigative Activities.....	Volume 5 - 105

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
230	07	0305133V	Industrial Security Activities.....	Volume 5 - 111
233	07	0305146V	Defense Joint Counterintelligence Activities.....	Volume 5 - 117
240	07	0305208BB	Distributed Common Ground/Surface Systems.....	Volume 5 - 1015
247	07	0305251K	Cyberspace Operations Forces and Force Support.....	Volume 5 - 297
248	07	0305327V	Insider Threat.....	Volume 5 - 123
257	07	0708012K	Logistics Support Activities.....	Volume 5 - 303
258	07	0708012S	Pacific Disaster Center.....	Volume 5 - 437
259	07	0708047S	Defense Property Accountability System (DPAS).....	Volume 5 - 443
261	07	1105219BB	MQ-9 Unmanned Aerial Vehicle (UAV).....	Volume 5 - 1025
262	07	1160279BB	Small Business Innovation Research/Small Bus Tech Transfer.....	Volume 5 - 1033
263	07	1160403BB	Aviation Systems.....	Volume 5 - 1045
264	07	1160405BB	Intelligence Systems Development.....	Volume 5 - 1113
265	07	1160408BB	Operational Enhancements.....	Volume 5 - 1139
266	07	1160431BB	Warrior Systems.....	Volume 5 - 1141
267	07	1160432BB	Special Programs.....	Volume 5 - 1227
268	07	1160434BB	Unmanned ISR.....	Volume 5 - 1229
269	07	1160480BB	SOF Tactical Vehicles.....	Volume 5 - 1245
270	07	1160483BB	Maritime Systems.....	Volume 5 - 1253

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
271	07	1160489BB	Global Video Surveillance Activities.....	Volume 5 - 1289
272	07	1160490BB	Operational Enhancements Intelligence.....	Volume 5 - 1291
273	07	1203610K	Teleport Program.....	Volume 5 - 309

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
274	08	0608197V	National Background Investigation Services - Software Pilot Program.....	Volume 5 - 131
277	08	0303150K	Global Command and Control System Software and Digital Technology Pilot Programs	Volume 5 - 321
282	08	0308609V	Software and Digital Technology Pilot Program.....	Volume 5 - 139

***Appropriation 0460: Operational Test and Evaluation, Defense***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
1	06	0605118OTE	Operational Test and Evaluation (OT&E).....	Volume 5 - 779
2	06	0605131OTE	Live Fire Test and Evaluation (LFT&E).....	Volume 5 - 785

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0460: Operational Test and Evaluation, Defense***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
3	06	0605814OTE	Operational Test Activities and Analyses.....	Volume 5 - 803

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Advanced Concepts and Performance Assessment	0603176BR	35	03.....	Volume 5 - 619
Auctioned Spectrum Relocation Fund	0303267K	224	07.....	Volume 5 - 291
Aviation Systems	1160403BB	263	07.....	Volume 5 - 1045
C4I Interoperability	0208045K	183	06.....	Volume 5 - 169
Catapult	0604551BR	105	04.....	Volume 5 - 653
Combined Advanced Applications	0305172K	189	06.....	Volume 5 - 177
Counter Improvised-Threat Simulation	0603134BR	33	03.....	Volume 5 - 597
Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	0604134BR	98	04.....	Volume 5 - 623
Counter Weapons of Mass Destruction Advanced Technology Development	0603160BR	34	03.....	Volume 5 - 601
Counter Weapons of Mass Destruction Applied Research	0602718BR	25	02.....	Volume 5 - 581
Counter Weapons of Mass Destruction Systems Development	0605000BR	129	05.....	Volume 5 - 663
Cyberspace Operations Forces and Force Support	0305251K	247	07.....	Volume 5 - 297
DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation	0303140SE	186	06.....	Volume 5 - 753
DOD Enterprise Systems Development and Demonstration	0605070S	134	05.....	Volume 5 - 415
DTRA Basic Research	0601000BR	1	01.....	Volume 5 - 569
Defense Agencies Initiative (DAI) - Financial System	0605080S	136	05.....	Volume 5 - 421

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Defense Digital Service (DDS) Development Support	0606589D8W	178	06.....	Volume 5 - 1313
Defense Equal Opportunity Management Institute (DEOMI)	0808709SE	193	06.....	Volume 5 - 759
Defense Info. Infrastructure Engineering and Integration	0302019K	209	07.....	Volume 5 - 197
Defense Joint Counterintelligence Activities	0305146V	233	07.....	Volume 5 - 117
Defense Property Accountability System (DPAS)	0708047S	259	07.....	Volume 5 - 443
Defense Spectrum Organization	0303153K	217	07.....	Volume 5 - 265
Defense Technical Information Center	0605801KA	168	06.....	Volume 5 - 513
Distributed Common Ground/Surface Systems	0305208K	191	06.....	Volume 5 - 181
Distributed Common Ground/Surface Systems	0305208BB	240	07.....	Volume 5 - 1015
Enterprise Information Technology System	0300206R	118	04.....	Volume 5 - 21
Enterprise Security System (ESS)	0604130V	196	07.....	Volume 5 - 91
Federal Investigative Services Information Technology	0303430V	221	07.....	Volume 5 - 99
Global Command and Control System	0303150K	216	07.....	Volume 5 - 253
Global Command and Control System Software and Digital Technology Pilot Programs	0303150K	277	08.....	Volume 5 - 321
Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	0607327T	202	07.....	Volume 5 - 483
Global Video Surveillance Activities	1160489BB	271	07.....	Volume 5 - 1289
Homeland Personnel Security Initiative	0605021SE	131	05.....	Volume 5 - 717
Improvised Threat Reduction Applied Research	0602134BR	13	02.....	Volume 5 - 575
Industrial Security Activities	0305133V	230	07.....	Volume 5 - 111

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Information Systems Security Program	0303140K	215	07.....	Volume 5 - 243
Information Technology Development	0605013BL	130	05.....	Volume 5 - 47
Insider Threat	0305327V	248	07.....	Volume 5 - 123
Intelligence Systems Development	1160405BB	264	07.....	Volume 5 - 1113
Joint Artificial Intelligence Center (JAIC)	0604532K	197	07.....	Volume 5 - 189
Joint C5 Capability Development, Integration, and Interoperability Assessments	0604826J	109	04.....	Volume 5 - 903
Joint Capability Experimentation	0603829J	143	06.....	Volume 5 - 929
Joint Information Environment	0303228K	219	07.....	Volume 5 - 283
Joint Integrated Air & Missile Defense Organization (JIAMDO)	0605126J	150	06.....	Volume 5 - 933
Joint Service Provider	0903235K	195	06.....	Volume 5 - 185
Joint Staff Analytical Support	0204571J	182	06.....	Volume 5 - 943
Joint Training, Exercise and Evaluation Program (JTEEP)	0804768J	192	06.....	Volume 5 - 947
Live Fire Test and Evaluation (LFT&E)	0605131OTE	2	06.....	Volume 5 - 785
Logistics Research and Development Technology (Log R&D)	0603712S	56	03.....	Volume 5 - 383
Logistics Support Activities	0708012K	257	07.....	Volume 5 - 303
Long-Haul Communications - DCS	0303126K	210	07.....	Volume 5 - 223
MQ-9 Unmanned Aerial Vehicle (UAV)	1105219BB	261	07.....	Volume 5 - 1025
Management HQ - Defense Technical Information Center (DTIC)	0605998KA	172	06.....	Volume 5 - 527
Management Technical and International Support	0606853BR	180	06.....	Volume 5 - 693

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Manufacturing Technology Program (ManTech)	0603680S	55	03.....	Volume 5 - 357
Maritime Systems	1160483BB	270	07.....	Volume 5 - 1253
Microelectronics Technology Development and Support (DMEA)	0603720S	58	03.....	Volume 5 - 403
Minimum Essential Emergency Communications Network (MEECN)	0303131K	211	07.....	Volume 5 - 237
Mission Assurance Risk Management System (MARMS)	0605141BR	137	05.....	Volume 5 - 679
National Background Investigation Services - Software Pilot Program	0608197V	274	08.....	Volume 5 - 131
Operational Enhancements	1160408BB	265	07.....	Volume 5 - 1139
Operational Enhancements Intelligence	1160490BB	272	07.....	Volume 5 - 1291
Operational Test Activities and Analyses	0605814OTE	3	06.....	Volume 5 - 803
Operational Test and Evaluation (OT&E)	0605118OTE	1	06.....	Volume 5 - 779
Overseas Humanitarian Assistance Shared Information System (OHASIS)	0605147T	199	07.....	Volume 5 - 477
Pacific Disaster Center	0708012S	258	07.....	Volume 5 - 437
Partner Outreach and Collaboration Support (POCS)	0605127T	198	07.....	Volume 5 - 469
Pre-Auctioned Spectrum Relocation Fund	0303167K	218	07.....	Volume 5 - 277
R&D in Support of DOD Enlistment, Testing and Evaluation	0605803SE	169	06.....	Volume 5 - 733
SOF Advanced Technology Development	1160402BB	72	03.....	Volume 5 - 1007
SOF Tactical Vehicles	1160480BB	269	07.....	Volume 5 - 1245
SOF Technology Development	1160401BB	28	02.....	Volume 5 - 1001
Security and Investigative Activities	0305128V	229	07.....	Volume 5 - 105

**UNCLASSIFIED**



**UNCLASSIFIED**

Defense-Wide • Budget Estimates FY 2023 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Small Business Innovation Research	0605502BR	159	06.....	Volume 5 - 689
Small Business Innovation Research (SBIR)	0605502SDA	164	06.....	Volume 5 - 875
Small Business Innovation Research/Small Bus Tech Transfer	1160279BB	262	07.....	Volume 5 - 1033
Small Business Innovative Research (SBIR)	0605502S	163	06.....	Volume 5 - 431
Software and Digital Technology Pilot Program	0308609V	282	08.....	Volume 5 - 139
Space Science and Technology Research and Development	1206310SDA	73	03.....	Volume 5 - 833
Space Technology Development and Prototyping	1206410SDA	121	04.....	Volume 5 - 837
Special Programs	1160432BB	267	07.....	Volume 5 - 1227
Teleport Program	1203610K	273	07.....	Volume 5 - 309
Unmanned ISR	1160434BB	268	07.....	Volume 5 - 1229
Warrior Systems	1160431BB	266	07.....	Volume 5 - 1141

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Contract Audit Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Contract Audit Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 5**  
**Program Element Table of Contents (by Budget Activity then Line Item Number).....Volume 5 - 17**  
**Program Element Table of Contents (Alphabetically by Program Element Title).....Volume 5 - 19**  
**Exhibit R-2s..... Volume 5 - 21**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Advanced Component Development & Prototypes	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				
<u>Summary Recap of FYDP Programs</u>						
Intelligence and Communications	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				

R-123BBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Component Development & Prototypes		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664
Summary Recap of FYDP Programs -----			
Intelligence and Communications		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
Advanced Component Development & Prototypes	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				
<b>Summary Recap of FYDP Programs</b>						
Intelligence and Communications	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Component Development & Prototypes		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664
Summary Recap of FYDP Programs -----			
Intelligence and Communications		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Contract Audit Agency	2,118	2,568				
Total Research, Development, Test & Evaluation	2,118	2,568				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Defense Contract Audit Agency		2,568	2,664
Total Research, Development, Test & Evaluation		2,568	2,664

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
118	0300206R	Enterprise Information Technology Systems	04	2,118	2,568					U
		Advanced Component Development & Prototypes		2,118	2,568					
Total Research, Development, Test & Eval, DW				2,118	2,568					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	----	---	-----	-----	-----	---
118	0300206R	Enterprise Information Technology Systems	04		2,568	2,664	U
		Advanced Component Development & Prototypes			2,568	2,664	
Total Research, Development, Test & Eval, DW					2,568	2,664	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

UNCLASSIFIED



UNCLASSIFIED

Defense Contract Audit Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
118	0300206R	Enterprise Information Technology Systems	04	2,118	2,568					U
		Advanced Component Development & Prototypes		2,118	2,568					
Total Defense Contract Audit Agency				2,118	2,568					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Contract Audit Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	----	---	-----	-----	-----	---
118	0300206R	Enterprise Information Technology Systems	04		2,568	2,664	U
		Advanced Component Development & Prototypes			2,568	2,664	
Total Defense Contract Audit Agency					2,568	2,664	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 11:08:09

**UNCLASSIFIED**

Defense Contract Audit Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
118	04	0300206R	Enterprise Information Technology System.....	Volume 5 - 21

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Contract Audit Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Enterprise Information Technology System	0300206R	118	04.....	Volume 5 - 21

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Contract Audit Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	4.200	2.118	2.568	2.664	0.000	2.664	2.146	2.146	2.146	2.146	Continuing	Continuing
000001: <i>Enterprise Information Technology System</i>	4.200	2.118	2.568	2.664	0.000	2.664	2.146	2.146	2.146	2.146	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Funding is required for the software development of a prototype capability to streamline the assembly, transmission, routing, processing, and tracking of the large volume of contractor submissions received annually by the federal government which will become CSP (Contractor Submission Portal) as well to design the technical architecture to operate in DoD Azure Cloud.

- Lead the software development and testing of the CSP prototype in DoD Azure cloud leveraging cloud based technologies and capabilities
- Deploy the CSP prototype in DoD Azure Cloud environment accessible to the public
- Conduct unit, system, user acceptance, and other software testing in order to ensure functionality meets all requirements
- Develop the SoS (System of System) design requirements and translate business requirements into technical requirements
- Collaborate with the Government in the development of mock-ups and demonstrations
- Develop and test the refined SoS prototype
- Produce SoS Planning module and the assignment module Intranet Functional and Technical Design

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	2.118	2.568	0.000	0.000	0.000
Current President's Budget	2.118	2.568	2.664	0.000	2.664
Total Adjustments	0.000	0.000	2.664	0.000	2.664
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	2.664	-	2.664

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. No significant program changes.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Contract Audit Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>	<b>Project (Number/Name)</b> 000001 / <i>Enterprise Information Technology System</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000001: <i>Enterprise Information Technology System</i>	4.200	2.118	2.568	2.664	0.000	2.664	2.146	2.146	2.146	2.146	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Funding is required for the software development of a prototype capability to streamline the assembly, transmission, routing, processing, and tracking of the large volume of contractor submissions received annually by the federal government which will become CSP (Contractor Submission Portal) as well to design the technical architecture to operate in DoD Azure Cloud.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Enterprise Information Technology System	2.118	2.568	2.664
<b>Description:</b> - Lead software development testing of the CSP prototype in DoD Azure cloud leveraging cloud based technologies/capabilities - Deploy the CSP prototype in DoD Azure Cloud environment accessible to the public - Conduct unit, system, user acceptance, and other software testing in order to ensure functionality meets all requirements - Develop the SoS (System of System) design requirements and translate business requirements into technical requirements - Collaborate with the Government in the development of mock-ups and demonstrations - Develop and test the refined SoS prototype - Produce SoS Planning module and the assignment module Intranet Functional and Technical Design			
<b>FY 2022 Plans:</b> - Continue to refine capabilities and requirements for SoS design - Continue development and testing of SoS prototype - Migrate SoS components to DCAA Mission Cloud			
<b>FY 2023 Plans:</b> - Continue to refine capabilities and requirements for SoS design - Continue development and testing of SoS prototype - Migrate SoS components to DCAA Mission Cloud			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Slight increase due to normal inflationary/economic costs adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.118	2.568	2.664



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Contract Audit Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>	<b>Project (Number/Name)</b> 000001 / <i>Enterprise Information Technology System</i>

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Contract Audit Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>	<b>Project (Number/Name)</b> 000001 / <i>Enterprise Information Technology System</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development Cost	TBD	Defense Contract Audit Agency : Fort Belvoir, Virginia	4.200	2.118		2.568		2.664		0.000		2.664	Continuing	Continuing	-
<b>Subtotal</b>			4.200	2.118		2.568		2.664		0.000		2.664	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			4.200	2.118		2.568		2.664		0.000		2.664	Continuing	Continuing	N/A

Remarks

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Contract Audit Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>	<b>Project (Number/Name)</b> 000001 / <i>Enterprise Information Technology System</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Software Development</b>	
Software Development	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Software Development</b>	
Software Development	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Contract Audit Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0300206R / <i>Enterprise Information Technology System</i>	<b>Project (Number/Name)</b> 000001 / <i>Enterprise Information Technology System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Software Development</b>				
Software Development	1	2019	4	2027

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Contract Management Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Contract Management Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 31**  
**Program Element Table of Contents (by Budget Activity then Line Item Number).....Volume 5 - 43**  
**Program Element Table of Contents (Alphabetically by Program Element Title).....Volume 5 - 45**  
**Exhibit R-2s..... Volume 5 - 47**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022			
			Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities						
-----						
System Development & Demonstration	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				
Summary Recap of FYDP Programs						
-----						
Research and Development	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
System Development & Demonstration		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244
Summary Recap of FYDP Programs -----			
Research and Development		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities						
-----						
System Development & Demonstration	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				
Summary Recap of FYDP Programs						
-----						
Research and Development	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
System Development & Demonstration		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244
Summary Recap of FYDP Programs -----			
Research and Development		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Contract Management Agency	2,789	4,265				
Total Research, Development, Test & Evaluation	2,789	4,265				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Defense Contract Management Agency		4,265	1,244
Total Research, Development, Test & Evaluation		4,265	1,244

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	
						Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	S
130	0605013BL	Information Technology Development	05	2,789	4,265					U
		System Development & Demonstration		2,789	4,265					
Total Research, Development, Test & Eval, DW				2,789	4,265					

R-123PPB: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c
---	-----	-----	---	-----	-----	-----	-
130	0605013BL	Information Technology Development	05		4,265	1,244	U
		System Development & Demonstration			4,265	1,244	
					-----	-----	
					4,265	1,244	

Total Research, Development, Test & Eval, DW

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

UNCLASSIFIED

UNCLASSIFIED

Defense Contract Management Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Element	Program	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
							Division B P.L.117-43 Enactment*	Division C P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
130	0605013BL	Information Technology Development	05		2,789	4,265					U
		System Development & Demonstration			2,789	4,265					
Total Defense Contract Management Agency					2,789	4,265					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Contract Management Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c
--	-----	-----	---	-----	-----	-----	-
130	0605013BL	Information Technology Development	05		4,265	1,244	U
		System Development & Demonstration			4,265	1,244	
		Total Defense Contract Management Agency			4,265	1,244	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 10:02:03

**UNCLASSIFIED**

Defense Contract Management Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
130	05	0605013BL	Information Technology Development.....	Volume 5 - 47

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Contract Management Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Information Technology Development	0605013BL	130	05.....	Volume 5 - 47

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	193.853	2.789	4.265	1.244	0.000	1.244	4.501	4.503	1.229	1.229	-	-
01: <i>Systems Modifications and Development</i>	193.853	2.789	4.265	1.244	0.000	1.244	4.501	4.503	1.229	1.229	-	-

**A. Mission Description and Budget Item Justification**

DCMA is currently engaged in several major IT initiatives to improve our information technology environment. Information technology is the primary enabling capability the acquisition workforce is reliant upon to communicate with contractors, the DoD acquisition community and other customers. These initiatives are driven by the National Defense Strategy business reform line of effort. On December 21, 2017, the Reform Management Group directed the Information Technology (IT) and Business Systems Reform Lead to review the Fourth Estate IT networks, policies, business processes, functions, costs, Chief Information Officer (CIO) organizational structures and manpower requirements. In support of this directive, DCMA is structuring its information technology investments to align with the vision of the DoD guidance. One early result of this review is the decision to transfer commodity information technology administrative control to Defense Information Systems Agency (DISA) in FY 2022.

The DCMA IT Modernization Analytics Initiative (MAI) Acquisition strategy is being driven by the Director's initiatives to: 1) Develop Mission Business Systems; 2) Leverage Commodity IT Buying Power Through DISA; and 3) Focus On The Last Tactical Mile. These initiatives directly align and support the Optimization and Modernization efforts of the DoD CIO, which include: 1) Network Optimization; 2) Data Center Optimization; 3) Mission Partner Engagement; 4) Defense Travel Modernization ; 5) Enterprise Collaboration; 6) Consolidation of Cyber and IT Responsibilities; 7) Rationalize Business Systems; 8) Streamline IT Commodity Purchasing.

Development and research initiatives are a core component in DCMA ability to align efforts appropriately to the DoD CIO IT Reform Initiative. In order to meet the needs of the DoD community, DCMA current efforts are focused on the development of investments in two core areas: 1) Modernization and Analytics Initiative Strategy (formerly called DCMA App Store) and 2) Procurement Integrated Enterprise Environment (PIEE) (hosts Wide Area WorkFlow (WAWF)).

These initiatives will empower mobile and fixed users' ability to utilize DoD enterprise capabilities with the same level or better efficiency and effectiveness. DCMA also has a mandate to align with the DoD strategy for digital modernization of enterprise capabilities. This involves migrating DCMA application infrastructure to enterprise hosting environments and modern technology platforms, rationalizing existing applications to ensure capabilities align with mission requirements, and adopting new DoD strategies for modern software development methodologies. These solutions will improve process gaps to streamline/simplify automated contract administration, provide real-time data visibility, eliminate manual intervention and provide effective, regulatory based tools for use across the Department.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Contract Management Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	1.441	4.265	0.000	0.000	0.000
Current President's Budget	2.789	4.265	1.244	0.000	1.244
Total Adjustments	1.348	0.000	1.244	0.000	1.244
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	-	-			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	1.348	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	1.244	0.000	1.244

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
01: <i>Systems Modifications and Development</i>	193.853	2.789	4.265	1.244	0.000	1.244	4.501	4.503	1.229	1.229	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Development and research initiatives are a core component in DCMA ability to align efforts appropriately to the DoD CIO IT Reform Initiative. DCMA has a mandate to align with the DoD strategy for digital modernization of enterprise capabilities. This involves migrating DCMA application infrastructure to enterprise hosting environments and modern technology platforms, rationalizing existing applications to ensure capabilities align with mission requirements, and adopting new DoD strategies for modern software development methodologies. This will ensure delivery of secure, interoperable, and optimized solutions. In order to meet the needs of the DoD community, the DCMA current effort is to develop and implement its Modernization and Analytics Initiatives (MAI) Acquisition Strategy .

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> System Modifications and Development	2.789	4.265	1.244	0.000	1.244
<b>Description:</b> The DCMA will use the system and modifications program to focus on two main efforts: 1) DCMA Modernization and Analytics Initiatives (MAI) Strategy (formerly DCMA App Store) and Procurement Integrated Enterprise Environment (PIEE) (hosts Wide Area WorkFlow (WAWF)).					
MAI intends to utilize commercial innovations such as Platform as a Service (PaaS), Software as a Service (SaaS), artificial Intelligence (AI) and Machine Learning (ML) with cost-effective solutions. Implementation is paramount to ensuring future Contract Management oversight to the DoD base by: (i) aligning the DCMA modernization strategy to the DoD Digital Moderation Strategy (2019), DoD Cloud Strategy (2018) and IT Reform Initiatives (2017) (ii) and implementing a robust environment that enables development of enterprise solutions and environment to enhance the DCMA Contract Administration Support mission. This approach promotes the tenets of reusable code, pre-built applications, a no code/low code environment, and industry developed solutions that can ride on the same platform. This enterprise environment will encompass data analytics across multiple sources and enable business-process driven citizen development of low code applications to provide DoD instantaneous and dynamic business insight of Contract Management data.					
PIEE is an existing Defense Business System that provides an information technology platform of enterprise services, capabilities, and systems grouped into modules with the objective of seamlessly supporting the end-to-end Procure-to-Pay (P2P) business processes for the Department of Defense (DoD). Leveraging role-					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Contract Management Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>based access, PIEE provides users with the access to many of the critical enterprise capabilities used every day by hundreds of thousands of users spanning all Services, Defense Agencies, and Industry such as the Department’s e-Invoicing, contracts repository, and contract surveillance tools. The DCMA intent is to partner with DLA to modernize unsustainable capabilities within the PIEE environment making the DCMA capabilities available to the Department user base.</p> <p><b>FY 2022 Plans:</b> MAI Strategy FY 2022 RDT&amp;E will support the following capabilities for development and implementation:</p> <p>1) Department of Defense Activity Address Code (DoDAAC) Insight/Enhanced Contract View: DoDAAC Insight which provides the ability to view all contracts administered by DCMA and the ability to view contract information collected by DCMA to include contract metadata, tasks generated, requirements identified during contract review, records, contract Management Team, and comments.</p> <p>2) Industrial Base Integrated Data System (IBIDS): This is a repository of defense industry data used to manage data pertaining to suppliers, products, capabilities, and associated relationships throughout the Defense Industrial Base.</p> <p>3) Program Support Collaboration &amp; Reporting Tool (PSCRT): This tool provides the Program Support Community with one location to navigate all program support resources.</p> <p>PIEE FY 2022 RDT&amp;E will support the following capabilities for development and implementation:</p> <p>1) Modifications and Delivery Orders (MDO) which allows users to modify existing contracts and issue delivery orders.</p> <p>2) Combined Audit Tracking and Action Tool (CA-TAT): This tool combines legacy capabilities CAFU, AIT, Form 1, OH Negotiations, and Forward Pricing Rate Agreement (FPRA) into one effort. CAFU allows the Military Services and Defense Agencies to Track Follow-up Actions on DCAA Audit Findings. AIT which is the Audit Issue Tracking tool provides capability to track cost recovery data for CAS Audits. Form 1 provides a tracking notice of costs suspended and/or disapproved incidents to the audit of contractor costs incurred</p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Contract Management Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>under a contract. Overhead Negotiating Rate (OVR) which tracks the status of the contractor's final overhead settlements and FPRA provides forward pricing support to customers.</p> <p>3) Contract Property Administration System (CPAS) is a web-based, user friendly tool for the DCMA Property Administrators to receive and review contracts with property, schedule property audits, record results of audits, closeout the property administration portion of contracts in Mechanization of Contract Administration Services (MOCAS) and allow reopening of the property administration portion of contracts in MOCAS.</p> <p>4) Contract Administration DoDAAC Selection (PCM CAO-PAY) which allows the DoD contracting community to search appropriate CAO and associate DoD Activity Code (DoDAAC) by the proposed contractor's Commercial and Government Entity(CAGE) Code, ZIP Code, or country.</p> <p><b>FY 2023 Base Plans:</b> The DCMA will continue to support its MAI Acquisition Strategy.</p> <p>FY 2023 RDT&amp;E will support the following PIEE capabilities for development and implementation under the MAI Acquisition Strategy:</p> <p>1) Contract Property Administration System (CPAS) which provides a web-based, user friendly tool for the DCMA Property Administrators to receive and review contracts with property, schedule property audits, record results of audits, closeout the property administration portion of contracts in MOCAS and allow reopening of the property administration portion of contracts in MOCAS.</p> <p>2) Delivery Schedule Manager (DSM) which facilitates surveillance and analysis of contract delivery schedules, Delay Notifications, and Customer Requests.</p> <p>3) Canceling Funds supports monitoring and reporting status of funds as being "at risk" of canceling.</p> <p><b>FY 2023 OCO Plans:</b> There are no RDT&amp;E OCO requirements.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Explanation of change from FY 2022 to FY 2023 reflects funding to support anticipated development of PIEE MAI Acquisition Strategy capabilities identified to modernize and re-platform the DCMA aging legacy mission</p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Contract Management Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p>applications and technology infrastructure by implementing Business Process Improvements and Data Analytics Tools to generate Contractor cost savings, pricing fraud recovery, and increased productivity. PIEE provides an information technology platform of enterprise services, capabilities, and systems grouped into modules with the objective of seamlessly supporting the end-to-end Procure-to-Pay (P2P) business processes for the Department of Defense (DoD).</p> <p>The programmatic change is reflective of staging RDT&amp;E efforts to support the MAI Strategy as requirements are validated for implementation. The phasing or staging plan supports system engineering plans, high level system designs, prototyping, testing and evaluating applications.</p> <p>Since RDT&amp;E is a multi-year appropriation, the DCMA is properly phasing contractual support to implement the MAI Acquisition Strategy efforts as needed. The intent is to have funding available to execute these phased requirements timely and not to over-resource critical funding.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	2.789	4.265	1.244	0.000	1.244

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DoD CIO strategy addresses Cloud, Cyber and Artificial Intelligence Initiatives implementation via the DoD IT Reform Initiative. The DCMA Director has identified three DCMA priority initiatives in alignment with the DoD CIO initiatives to include: 1) Off-Ramping IT Services 2) Mission System Development and 3) The Last Tactical Mile.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Contract Management Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCMA Modernization and Analytics Initiatives (MAI) (formerly DCMA App Store)	C/FFP	Various : Various	2.270	2.789	Sep 2021	-		-		-		-	-	-	0.000
WAWF	C/FFP	Various : Various	0.800	-		-		-		-		-	-	-	0.800
Other Programs	C/FFP	Various : Various	190.783	-		-		-		-		-	-	-	-
DoDAAC Insight/Enhanced Contract View: DoDAAC Insight (MAI)	C/FFP	Various : Various	-	-		0.951	Jun 2022	-		-		-	-	-	0.000
Industrial Base Integrated Data System (IBIDS) (MAI)	C/FFP	Various : Various	-	-		0.951	Jun 2022	-		-		-	-	-	0.000
Program Support Collaboration & Reporting Tool (PSCRT) (MAI)	C/FFP	Various : Various	-	-		1.163	Jun 2022	-		-		-	-	-	0.000
Modifications and Delivery Orders (MDO) (PIEE)	C/FFP	Various : Various	-	-		0.500	Dec 2021	-		-		-	-	-	0.500
Combined Audit Tracking and Action Tool (CA-TAT) (PIEE)	C/FFP	Various : Various	-	-		0.200	Dec 2021	-		-		-	-	-	0.200
Contract Property Administration System (CPAS) (PIEE)	C/FFP	Various : Various	-	-		0.475	Dec 2021	0.100		-		0.100	-	-	0.575
Contract Administration DoDAAC Selection (PCM CAO-PAY) (PIEE)	C/FFP	Various : Various	-	-		0.025	Dec 2021	-		-		-	-	-	0.025
Delivery Schedule Manager (DSM) (PIEE)	C/CPFF	Various : Various	-	-		-		1.044		-		1.044	-	-	1.044
Canceling Funds (PIEE)	C/FFP	Various : Various	-	-		-		0.100		-		0.100	-	-	0.100
<b>Subtotal</b>			193.853	2.789		4.265		1.244		-		1.244	-	-	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Contract Management Agency</b>										<b>Date: April 2022</b>	
<b>Appropriation/Budget Activity</b> 0400 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>				<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>			
	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>		
<b>Project Cost Totals</b>	193.853	2.789	4.265	1.244	-	1.244	-	-	N/A		

**Remarks**  
 The DCMA Information Technology supports the Agency's CAS mission by capitalizing on IT investment innovations that leverage technology to achieve an agile enterprise architecture that improves its contract management workforce's productivity, efficiency, and effectiveness.



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Contract Management Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>MAI (formerly DCMA App Store)</b>																												
Design	■																											
Development	■																											
Testing			■																									
Deployment					■																							
<b>DoDAAC Insight/Enhanced Contract View: DoDAAC Insight</b>																												
Design					■																							
Development					■																							
Testing					■																							
Deployment					■																							
<b>Industrial Base Integrated Data System (IBIDS)</b>																												
Design					■																							
Development					■																							
Testing					■																							
Deployment					■																							
<b>Program Support Collaboration &amp; Reporting Tool (PSCRT)</b>																												
Design					■																							
Development					■																							
Testing					■																							
Deployment					■																							
<b>Modifications and Delivery Orders (MDO)</b>																												
Design			■																									

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development					██████████																							
Testing									██████████																			
Deployment									██████████																			
<b><i>Combined Audit Tracking and Action Tool (CA-TAT)</i></b>																												
Design					██████████																							
Development					██████████																							
Testing									██████████																			
Deployment									██████████																			
<b><i>Contract Property Administration System (CPAS)</i></b>																												
Design					██████████																							
Development					██████████																							
Testing									██████████																			
Deployment									██████████																			
<b><i>Contract Administration DoDAAC Selection (PCM CAO-PAY)</i></b>																												
Design					██████████																							
Development					██████████																							
Testing									██████████																			
Deployment									██████████																			
<b><i>Customer Satisfaction Survey Tool (CSST)</i></b>																												
Design													██████████															
Development													██████████															
Testing													██████████															
Deployment													██████████															

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
<b><i>First Level Supervisor Review</i></b>																																
Design													████████																			
Development													████████																			
Testing													████████																			
Deployment													████████																			
<b><i>Contract Inquires/Pricing &amp; Negotiations</i></b>																																
Design													████████																			
Development													████████																			
Testing													████████																			
Deployment													████████																			
<b><i>Program Integration</i></b>																																
Design																	████████															
Development																	████████															
Testing																	████████															
Deployment																	████████															
<b><i>Termination Cases</i></b>																																
Design																	████████															
Development																	████████															
Testing																	████████															
Deployment																	████████															
<b><i>General Council Enablers</i></b>																																
Design																	████████															
Development																	████████															
Testing																	████████															
Deployment																	████████															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Contract Management Agency Date: April 2022

Appropriation/Budget Activity 0400 / 5 R-1 Program Element (Number/Name) PE 0605013BL / Information Technology Development Project (Number/Name) 01 / Systems Modifications and Development

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Information Technology Enablers</b>																												
Design																												
Development																												
Testing																												
Deployment																												
<b>Inspector General Enablers</b>																												
Design																												
Development																												
Testing																												
Deployment																												
<b>Talent Managers Enablers/Total Force Enablers</b>																												
Design																												
Development																												
Testing																												
Deployment																												
<b>Contract Property Administration System (CPAS) Part 2</b>																												
Design and Development																												
Testing																												
Deployment																												
<b>Delivery Schedule Manager (DSM)</b>																												
Design																												
Development																												
Testing																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Contract Management Agency Date: April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Deployment																																
<b>Canceling Funds Part 2</b>																																
Design																																
Development																																
Testing																																
Deployment																																
<b>Modifications and Delivery Orders (MDO) Part 2</b>																																
Design and Development																																
Testing																																
Deployment																																
<b>Delivery Schedule Manager (DSM) Part 2</b>																																
Design and Development																																
Testing																																
Deployment																																
<b>Canceling Funds Part 3</b>																																
Design and Development																																
Testing																																
Deployment																																
<b>Pre-Award Survey System (PASS)</b>																																
Design																																
Development																																
Testing																																
Deployment																																
<b>Pricing Management Capability (PMC)</b>																																
Design																																

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Commercial Item Determination</b>																												
Design and Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Property Loss</b>																												
Design and Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Modifications and Delivery Orders (MDO) Part 3</b>																												
Design and Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Pre-Award Survey System (PASS) Part 2</b>																												
Design and Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Pricing Management Capability (PMC) Part 2</b>																												
Design and Development	[REDACTED]																											
Testing	[REDACTED]																											
Deployment	[REDACTED]																											
<b>Shipping Instructions Request (SIR)</b>																												
Design	[REDACTED]																											

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development																												
Testing																												
Deployment																												
<b><i>Contract Administration DoDAAC Selection (PCM CAO-PAY) Part 2</i></b>																												
Design and Development																												
Testing																												
Deployment																												
<b><i>Delivery Schedule Manager (DSM) Part 3</i></b>																												
Design and Development																												
Testing																												
Deployment																												
<b><i>Pricing Management Capability (PMC) Part 3</i></b>																												
Design and Development																												
Testing																												
Deployment																												
<b><i>Shipping Instructions Request (SIR) Part 2</i></b>																												
Design and Development																												
Testing																												
Deployment																												
<b><i>Duty Free Entry (DFE)</i></b>																												
Design																												
Development																												
Testing																												
Deployment																												
<b><i>Commercial Item Market Research</i></b>																												

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Contract Management Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Design																												
Development																												
Testing																												
Deployment																												



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MAI (formerly DCMA App Store)</i></b>				
Design	1	2021	1	2021
Development	1	2021	3	2021
Testing	3	2021	3	2021
Deployment	2	2022	4	2022
<b><i>DoDAAC Insight/Enhanced Contract View: DoDAAC Insight</i></b>				
Design	3	2022	1	2023
Development	3	2022	1	2023
Testing	3	2022	1	2023
Deployment	3	2022	2	2023
<b><i>Industrial Base Integrated Data System (IBIDS)</i></b>				
Design	3	2022	1	2023
Development	3	2022	1	2023
Testing	3	2022	1	2023
Deployment	3	2022	2	2023
<b><i>Program Support Collaboration &amp; Reporting Tool (PSCRT)</i></b>				
Design	3	2022	1	2023
Development	3	2022	1	2023
Testing	3	2022	1	2023
Deployment	3	2022	2	2023
<b><i>Modifications and Delivery Orders (MDO)</i></b>				
Design	1	2022	3	2022

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Development	1	2022	3	2023
Testing	1	2023	3	2023
Deployment	1	2023	3	2023
<b><i>Combined Audit Tracking and Action Tool (CA-TAT)</i></b>				
Design	1	2022	3	2022
Development	1	2022	3	2023
Testing	1	2023	3	2023
Deployment	1	2023	3	2023
<b><i>Contract Property Administration System (CPAS)</i></b>				
Design	1	2022	3	2022
Development	1	2022	3	2023
Testing	1	2023	3	2023
Deployment	1	2023	3	2023
<b><i>Contract Administration DoDAAC Selection (PCM CAO-PAY)</i></b>				
Design	1	2022	3	2022
Development	1	2022	3	2023
Testing	1	2023	3	2023
Deployment	1	2023	3	2023
<b><i>Customer Satisfaction Survey Tool (CSST)</i></b>				
Design	3	2023	1	2024
Development	3	2023	1	2024
Testing	3	2023	1	2024
Deployment	3	2023	2	2024
<b><i>First Level Supervisor Review</i></b>				
Design	3	2023	1	2024

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Development	3	2023	1	2024
Testing	3	2023	1	2024
Deployment	3	2023	2	2024
<b><i>Contract Inquires/Pricing &amp; Negotiations</i></b>				
Design	3	2023	1	2024
Development	3	2023	1	2024
Testing	3	2023	1	2024
Deployment	3	2023	2	2024
<b><i>Program Integration</i></b>				
Design	3	2024	1	2025
Development	3	2024	1	2025
Testing	3	2024	1	2025
Deployment	3	2024	2	2025
<b><i>Termination Cases</i></b>				
Design	3	2024	1	2025
Development	3	2024	1	2025
Testing	3	2024	1	2025
Deployment	3	2024	2	2025
<b><i>General Council Enablers</i></b>				
Design	3	2024	1	2025
Development	3	2024	1	2025
Testing	3	2024	1	2025
Deployment	3	2024	2	2025
<b><i>Information Technology Enablers</i></b>				
Design	3	2025	1	2026

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Development	3	2025	1	2026
Testing	3	2025	1	2026
Deployment	3	2025	2	2026
<b><i>Inspector General Enablers</i></b>				
Design	3	2025	1	2026
Development	3	2025	1	2026
Testing	3	2025	1	2026
Deployment	3	2025	2	2026
<b><i>Talent Managers Enablers/Total Force Enablers</i></b>				
Design	3	2025	1	2026
Development	3	2025	1	2026
Testing	3	2025	1	2026
Deployment	3	2025	2	2026
<b><i>Contract Property Administration System (CPAS) Part 2</i></b>				
Design and Development	1	2023	3	2023
Testing	1	2023	3	2024
Deployment	1	2023	3	2024
<b><i>Delivery Schedule Manager (DSM)</i></b>				
Design	1	2023	3	2023
Development	1	2023	3	2023
Testing	1	2023	3	2024
Deployment	1	2023	3	2024
<b><i>Canceling Funds Part 2</i></b>				
Design	1	2023	3	2023
Development	1	2023	3	2024

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Testing	1	2023	3	2024
Deployment	1	2023	3	2024
<b><i>Modifications and Delivery Orders (MDO) Part 2</i></b>				
Design and Development	1	2024	3	2024
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Delivery Schedule Manager (DSM) Part 2</i></b>				
Design and Development	1	2024	3	2024
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Canceling Funds Part 3</i></b>				
Design and Development	1	2024	3	2024
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Pre-Award Survey System (PASS)</i></b>				
Design	1	2024	3	2024
Development	1	2024	3	2025
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Pricing Management Capability (PMC)</i></b>				
Design	1	2024	3	2024
Development	1	2024	3	2025
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Commercial Item Determination</i></b>				

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Design and Development	1	2024	3	2024
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Property Loss</i></b>				
Design and Development	1	2024	3	2024
Testing	1	2024	3	2025
Deployment	1	2024	3	2025
<b><i>Modifications and Delivery Orders (MDO) Part 3</i></b>				
Design and Development	1	2025	3	2025
Testing	1	2025	3	2026
Deployment	1	2025	3	2026
<b><i>Pre-Award Survey System (PASS) Part 2</i></b>				
Design and Development	1	2025	3	2025
Testing	1	2025	3	2026
Deployment	1	2025	3	2026
<b><i>Pricing Management Capability (PMC) Part 2</i></b>				
Design and Development	1	2025	3	2025
Testing	1	2025	3	2026
Deployment	1	2025	3	2026
<b><i>Shipping Instructions Request (SIR)</i></b>				
Design	1	2025	3	2025
Development	1	2025	3	2026
Testing	1	2025	3	2026
Deployment	1	2025	3	2026
<b><i>Contract Administration DoDAAC Selection (PCM CAO-PAY) Part 2</i></b>				

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Contract Management Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Design and Development	1	2025	3	2025
Testing	1	2025	3	2026
Deployment	1	2025	3	2026
<b><i>Delivery Schedule Manager (DSM) Part 3</i></b>				
Design and Development	1	2026	3	2026
Testing	1	2026	4	2026
Deployment	1	2026	4	2026
<b><i>Pricing Management Capability (PMC) Part 3</i></b>				
Design and Development	1	2026	3	2026
Testing	1	2026	4	2026
Deployment	1	2026	4	2026
<b><i>Shipping Instructions Request (SIR) Part 2</i></b>				
Design and Development	1	2026	3	2026
Testing	1	2026	4	2026
Deployment	1	2026	4	2026
<b><i>Duty Free Entry (DFE)</i></b>				
Design	1	2026	3	2026
Development	1	2026	3	2026
Testing	1	2026	4	2026
Deployment	1	2026	4	2026
<b><i>Commercial Item Market Research</i></b>				
Design	1	2026	3	2026
Development	1	2026	3	2026
Testing	1	2026	4	2026
Deployment	1	2026	4	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Counterintelligence and Security Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Counterintelligence and Security Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 75**  
**Program Element Table of Contents (by Budget Activity then Line Item Number).....Volume 5 - 87**  
**Program Element Table of Contents (Alphabetically by Program Element Title).....Volume 5 - 89**  
**Exhibit R-2s..... Volume 5 - 91**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	128,467	160,595				
Total Research, Development, Test & Evaluation	128,467	160,595				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Research, Development, Test & Eval, DW		160,595	170,468
Total Research, Development, Test & Evaluation		160,595	170,468

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Operational Systems Development	22,794	37,025				
Software And Digital Technology Pilot Programs	105,673	123,570				
Total Research, Development, Test & Evaluation	128,467	160,595				
Summary Recap of FYDP Programs -----						
Intelligence and Communications	12,700	30,946				
Research and Development	115,354	128,925				
Classified Programs	413	724				
Total Research, Development, Test & Evaluation	128,467	160,595				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Operational Systems Development		37,025	23,195
Software And Digital Technology Pilot Programs		123,570	147,273
Total Research, Development, Test & Evaluation		160,595	170,468
Summary Recap of FYDP Programs -----			
Intelligence and Communications		30,946	36,221
Research and Development		128,925	132,524
Classified Programs		724	1,723
Total Research, Development, Test & Evaluation		160,595	170,468

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities						
Operational Systems Development	22,794	37,025				
Software And Digital Technology Pilot Programs	105,673	123,570				
Total Research, Development, Test & Evaluation	128,467	160,595				
Summary Recap of FYDP Programs						
Intelligence and Communications	12,700	30,946				
Research and Development	115,354	128,925				
Classified Programs	413	724				
Total Research, Development, Test & Evaluation	128,467	160,595				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Operational Systems Development		37,025	23,195
Software And Digital Technology Pilot Programs		123,570	147,273
Total Research, Development, Test & Evaluation		160,595	170,468
Summary Recap of FYDP Programs -----			
Intelligence and Communications		30,946	36,221
Research and Development		128,925	132,524
Classified Programs		724	1,723
Total Research, Development, Test & Evaluation		160,595	170,468

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Counterintelligence & Security Agency						
Total Research, Development, Test & Evaluation						

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
-----	-----	-----	-----
Defense Counterintelligence & Security Agency			
Total Research, Development, Test & Evaluation			

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
196	0604130V	Enterprise Security System (ESS)	07	9,681	5,355					U
221	0303430V	Federal Investigative Services Information Technology	07		15,326					U
229	0305128V	Security and Investigative Activities	07	5,700	8,800					U
230	0305133V	Industrial Security Activities	07							U
233	0305146V	Defense Joint Counterintelligence Activities	07	4,000	3,820					U
248	0305327V	Insider Threat	07	3,000	3,000					U
9999	9999999999	Classified Programs		413	724					U
		Operational Systems Development		22,794	37,025					
274	0608197V	National Background Investigation Services - Software Pilot Program	08	105,673	123,570					U
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08							U
		Software And Digital Technology Pilot Progr		105,673	123,570					
Total Research, Development, Test & Eval, DW				128,467	160,595					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c
---	-----	----	---	-----	-----	-----	-
196	0604130V	Enterprise Security System (ESS)	07		5,355		U
221	0303430V	Federal Investigative Services Information Technology	07		15,326	5,197	U
229	0305128V	Security and Investigative Activities	07		8,800	450	U
230	0305133V	Industrial Security Activities	07			1,800	U
233	0305146V	Defense Joint Counterintelligence Activities	07		3,820	4,622	U
248	0305327V	Insider Threat	07		3,000	9,403	U
9999	9999999999	Classified Programs			724	1,723	U
		Operational Systems Development			37,025	23,195	
274	0608197V	National Background Investigation Services - Software Pilot Program	08		123,570	132,524	U
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08			14,749	U
		Software And Digital Technology Pilot Progr			123,570	147,273	
Total Research, Development, Test & Eval, DW					160,595	170,468	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

UNCLASSIFIED

Defense Counterintelligence & Security Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
196	0604130V	Enterprise Security System (ESS)	07	9,681	5,355					U
221	0303430V	Federal Investigative Services Information Technology	07		15,326					U
229	0305128V	Security and Investigative Activities	07	5,700	8,800					U
230	0305133V	Industrial Security Activities	07							U
233	0305146V	Defense Joint Counterintelligence Activities	07	4,000	3,820					U
248	0305327V	Insider Threat	07	3,000	3,000					U
		Operational Systems Development		22,381	36,301					
274	0608197V	National Background Investigation Services - Software Pilot Program	08	105,673	123,570					U
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08							U
		Software And Digital Technology Pilot Programs		105,673	123,570					
Total Defense Counterintelligence & Security Agency				128,054	159,871					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Counterintelligence & Security Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
196	0604130V	Enterprise Security System (ESS)	07		5,355		U
221	0303430V	Federal Investigative Services Information Technology	07		15,326	5,197	U
229	0305128V	Security and Investigative Activities	07		8,800	450	U
230	0305133V	Industrial Security Activities	07			1,800	U
233	0305146V	Defense Joint Counterintelligence Activities	07		3,820	4,622	U
248	0305327V	Insider Threat	07		3,000	9,403	U
Operational Systems Development					36,301	21,472	
274	0608197V	National Background Investigation Services - Software Pilot Program	08		123,570	132,524	U
282	0308609V	National Industrial Security Systems (NISS) - Software Pilot Program	08			14,749	U
Software And Digital Technology Pilot Programs					123,570	147,273	
Total Defense Counterintelligence & Security Agency					159,871	168,745	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 17:07:51



**UNCLASSIFIED**

Defense Counterintelligence and Security Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
196	07	0604130V	Enterprise Security System (ESS).....	Volume 5 - 91
221	07	0303430V	Federal Investigative Services Information Technology.....	Volume 5 - 99
229	07	0305128V	Security and Investigative Activities.....	Volume 5 - 105
230	07	0305133V	Industrial Security Activities.....	Volume 5 - 111
233	07	0305146V	Defense Joint Counterintelligence Activities.....	Volume 5 - 117
248	07	0305327V	Insider Threat.....	Volume 5 - 123

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
274	08	0608197V	National Background Investigation Services - Software Pilot Program.....	Volume 5 - 131
282	08	0308609V	Software and Digital Technology Pilot Program.....	Volume 5 - 139

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Counterintelligence and Security Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Defense Joint Counterintelligence Activities	0305146V	233	07.....	Volume 5 - 117
Enterprise Security System (ESS)	0604130V	196	07.....	Volume 5 - 91
Federal Investigative Services Information Technology	0303430V	221	07.....	Volume 5 - 99
Industrial Security Activities	0305133V	230	07.....	Volume 5 - 111
Insider Threat	0305327V	248	07.....	Volume 5 - 123
National Background Investigation Services - Software Pilot Program	0608197V	274	08.....	Volume 5 - 131
Security and Investigative Activities	0305128V	229	07.....	Volume 5 - 105
Software and Digital Technology Pilot Program	0308609V	282	08.....	Volume 5 - 139

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	142.248	9.681	5.355	0.000	-	0.000	0.000	0.000	-	-	-	-
000: <i>Enterprise Security System (ESS)</i>	142.248	9.681	5.355	0.000	-	0.000	0.000	0.000	-	-	-	-

**A. Mission Description and Budget Item Justification**

The Defense Counterintelligence Security Agency (DCSA) is a strategic asset to the nation and our allies - continuously ensuring a trusted federal, industrial, and affiliated workforce, and enabling industry's delivery of uncompromised capabilities by leveraging advanced technologies and innovation. DCSA uniquely blends critical technology protection, trusted personnel vetting, counterintelligence, and professional education and certification to advance and preserve America's strategic edge.

National Industrial Security System (NISS) development effort consist of continued enhancements in response to user community requirements. These requirements include enhancements to Key Management Personnel (KMP) monitoring, NATO Control Point Inspection Triage Outreach Program, NISP Oversight Report, Outgoing Foreign Visits and enables Industry to initiate Facility Profile updates. A separate, parallel development effort will facilitate a SIPR NISS baseline to allow alternative Single Sign-On (SSO) capability to National Industrial Security Program (NISP) Central Access Information Security System (NCAISS), as well as Cross Domain Solution (CDS) for movement of NIPR-based data to SIPR for subsequent reporting and data aggregation. Development activities will include interface work between NISS and the Defense Information System for Security (DISS), NISP Contracts Classification System (NCCS) and Enterprise Mission Assurance Support Service (eMASS) systems as well as initial planning for refactoring of NISS functionality into National Background Investigative Services (NBIS).

DCSA will acquire, develop, and deploy digital automation and continuous vetting capabilities (i.e. data integration, link analysis, anomaly detection, artificial intelligence, business processing, advanced analytics) to comply with Public Law 116-92 Sec 845 & 847. These capabilities will also identify and evaluate supply chain risks; identify and evaluate Foreign Ownership Control or Influence (FOCI) risks; and implement an entity vetting capability. Starting in FY2023 the funding for Enterprise Security Service transfers to PE 0308609V National Industrial Security System (NISS) Software Pilot Program.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Counterintelligence and Security Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604130V I <i>Enterprise Security System (ESS)</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	9.681	5.355	0.000	-	0.000
Current President's Budget	9.681	5.355	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	0.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	0.000	-	0.000

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>				<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System (ESS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000: <i>Enterprise Security System (ESS)</i>	142.248	9.681	5.355	0.000	-	0.000	0.000	0.000	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Defense Counterintelligence Security Agency (DCSA) manages the Enterprise Security System (ESS) to provide effective, real time, security support capabilities for Military Departments, DoD Agencies, the NISP, and other Federal Agencies. In compliance with the Expanded Electronic Government, President's Management Agenda, and the DoD Enterprise Architecture Framework, Enterprise Security System (ESS) is the unified offering of security mission systems to facilitate and automate improved national investigative standards, streamline security processes, and increase DoD community collaboration.

DCSA Mission Information Technology (IT) systems provide critical service to the major DCSA mission areas for Industrial Security Oversight and Security Education. DCSA performs this function through the operation of its mission production systems to include the National Industrial Security System (NISS) and the DCSA Gateway. RDT&E for DCSA mission systems primarily include pre planned product enhancements and improvements to the applications, research and improvements to assure information sharing to better posture systems and networks against vulnerabilities, ensure self-defense of systems and networks, and safeguarding data at all stages to increase efficiencies through web based systems to manage certification and accreditation activities. These IT systems are as follows:

NISS (formerly known as Field Operations System (FOS)). NISS is the next generation functional replacement for the Industrial Security Facility Database system (ISFD) and supports end to end facility identification and registration processing, Foreign Ownership Control or Influence (FOCI) mitigation, and supports Personnel Vetting business processes. NISS provides a centralized web based platform for National Industrial Security Program (NISP) personnel to manage the industrial security facility clearance process; from request initiation to approval (or rejection) storage of all associated data, and provides a centralized process for users to submit, update, search, and view facility verification requests.

National Contract Classification System (NCCS). NCCS is a web based system that automates the DD Form 254 for contract security classification specification submission; provides submitter with intuitive form of instructions, drop down selections, and linkage to relevant contract information for completing the form; and provides user access control, query/search, notification, tracking, and reporting capabilities for accountability of all contract security classification specifications. The Federal Acquisition Regulation (FAR) requires a DD Form 254 for each classified contract, and the National Industrial Security Operating Manual (NISPOM)(4 103a) requires a DD 254 be issued by the government with each Invitation for Bid, Request for Proposal, or Request for Quote. The DD Form 254 provides a contractor (or a subcontractor) the security requirements and classification guidance necessary to perform on a classified contract. The purpose of the Contract Security Classification Specification required by DoD 5220.22 4, Industrial Security Regulation and the National Industrial Security Program Operating Manual (NISPOM) is to develop a federated system for the oversight and management of classified information access and guidance to perform on classified contracts. The DD 254, an underlying business process, is critical to ensure access to our Nation's classified information is safeguarded.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System (ESS)</i>
--	---	---

NISP Central Access and Information Security System (NCAISS) a web based Identity Management (IdM) enterprise portal, PKI compliant point of entry to the suite of services offered by DCSA, which controls user service accessibility through single sign on authentication. User service level permissions are verified, and authorized services are offered accordingly. National Control Access and Information Security System (NCAISS) formerly known as Identity Management (IdM). NCAISS is mandatory for compliance with Department of Defense (DoD) Public Key Infrastructure (PKI) Program Management Office and Office of the DoD Chief Information Officer, Joint Task Force for Global Networks Operations (JTF GNO) Communications Tasking Order (CTO) 06 02, CTO 07 015, and Office of Management and Budget (OMB) Memo 11 11 (M 11 11), which directed accelerated use of PKI access across the enterprise. This initiative is designed to enable multiple DCSA business systems to have service accessibility that is controlled through PKI compliant single sign on authentication. Potential expanded use of the NCAISS across the DCSA enterprise to provide CAC based authentication for business support applications on the SIPRNet and JWICS domains, provide enhanced identity and access control analytics. It incorporates any remaining DCSA operated application into the DCSA NCAISS solution.

DCSA established a Controlled Unclassified Information (CUI) program for industry that requires development and implementation of tools that support integration with cybersecurity monitoring, threat indications and warning, and supply chain illumination to protect critical technology. The development of a Security Rating Score (SRS) and its integration with the Contract Performance Assessment System will inform defense acquisition decisions and prioritize DCSA Industrial Security with active monitoring of companies in a single system of record. Funding will purchase data licenses for supply chain illumination tools that can be integrated into CUI cybersecurity assessments and will include business process tools to integrate data and manage DCSA business unit inputs from industrial and personnel security inputs. Funds will also support use of Artificial Intelligence / Machine Learning to accelerate and enhance cyber I&W via predictive analytics.

DCSA must invest further in modernization of NISS information technology to meet the mission needs of today and tomorrow. The attention on supply chain risk management and ensuring our trusted partners deliver uncompromised technology demands expanded oversight of the ~12,500 facilities in the cleared industry base. In recent years, DCSA has only performed a fraction of the ~9,500 security reviews of contractors required annually. Under Public Law 116-92, Section 847 requirements, foreign nexus assessments DCSA performs on behalf of the entire Department have increased by several orders of magnitude. Additional mission sets such as CUI Oversight and SCIF Accreditation also require improved technical capabilities to effectively manage, assess, and integrate across the Department.

DCSA will acquire, develop, and deploy digital automation and continuous vetting capabilities (i.e. data integration, link analysis, anomaly detection, artificial intelligence, business processing, advanced analytics) to comply with Public Law 116-92 Sec 845 & 847. These capabilities will also identify and evaluate supply chain risks; identify and evaluate Foreign Ownership Control or Influence (FOCI) risks; and implement an entity vetting capability.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Systems Enhancement</p> <p><b>Description:</b> 1. Deployed NISS Increment 2.5. Initiated development of NISS Increment 3. Increment 3 will include enhancements to KMP monitoring, NATO CPI, Triage Outreach Program, NISP Oversight Report, and Outgoing Foreign Visits. Completed Independent Verification and Validation (IV&amp;V) and Government Acceptance Testing (GAT) of Increment 2.5. 2. NCCS. Continue scheduled enhancements through version releases and sustainment. Agile development approach will continue with two release cycles per year. Address any findings/bugs/issues encountered from Independent Verification and Validation (IV&amp;V) and Government Acceptance Testing (GAT).</p>	9.681	5.355	0.000



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System (ESS)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
3.NCAISS. Continue integration and software upgrades with RDT&E funds				
<p><b>FY 2022 Plans:</b> Field both MilCloud and alternative cloud instances for National Background Investigative Services (NBIS) refactoring related activities.</p> <p>Deploy hardware and software required for the SIPR NISS instance, supporting NISS interfaces with DISS, NCCS and eMASS.</p> <p>Development efforts will enhance Key Management Personnel (KMP) monitoring, NATO CPI, Triage Outreach Program, NISP Oversight Report, and Outgoing Foreign Visits).</p> <p><b>FY 2023 Plans:</b> Continued development efforts realigned to PE 0308609V</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease from FY2022 is due to realignment of funding to PE 0308609V in support of the National Industrial Security System (NISS) Software Pilot Program.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		9.681	5.355	0.000
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Counterintelligence and Security Agency											<b>Date:</b> April 2022			
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0604130V / Enterprise Security System (ESS)					<b>Project (Number/Name)</b> 000 / Enterprise Security System (ESS)				

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
NISS Development	C/TBD	TBD : TBD	130.556	5.087		4.615		-		-		-	-	-	-
NISS Development/ MilCloud	MIPR	DISA : Pensacola, FL	1.600	0.000		0.500		-		-		-	-	-	-
NCAISS Development	Option/ BPA	Deloitt : Arlington VA	3.740	0.000		-		-		-		-	-	-	-
NCCS Development	MIPR	DLA : Philadelphia, PA	4.512	0.000	Oct 2020	-		-		-		-	-	-	-
SBIR/STTR	MIPR	AT&L : Arlington, VA	1.840	-		0.240	May 2022	-		-		-	-	-	-
DISS Development	TBD	TBD : TBD	-	4.594		-		-		-		-	-	-	-
CTP IT Modernization	TBD	TBD : TBD	-	0.000		-		-		-		-	-	-	-
<b>Subtotal</b>			142.248	9.681		5.355		-		-		-	-	-	N/A
<b>Project Cost Totals</b>			142.248	9.681		5.355		-		-		-	-	-	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System (ESS)</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Enterprise Security System</b>	
Production and Deployment of Applications	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Enterprise Security System</b>	
Production and Deployment of Applications	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System (ESS)</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System (ESS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Enterprise Security System</i></b>				
Production and Deployment of Applications	1	2017	3	2023

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0303430V I Federal Investigative Services Information Technology
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	15.326	5.197	0.000	5.197	0.000	0.000	0.000	0.000	Continuing	Continuing
000: Defense Information System for Security (DISS)	0.000	0.000	15.326	5.197	0.000	5.197	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Counterintelligence Security Agency (DCSA) is a strategic asset to the nation and our allies - continuously ensuring a trusted federal, industrial, and affiliated workforce, and enabling industry's delivery of uncompromised capabilities by leveraging advanced technologies and innovation. DCSA uniquely blends critical technology protection, trusted personnel vetting, counterintelligence, and professional education and certification to advance and preserve America's strategic edge.

The Defense Information System for Security (DISS) consolidates the DoD personnel security mission into an enterprise adjudicative case management system that will automate and improve national investigative and adjudicative standards to eliminate costly and inefficient work processes and increase information collaboration across the community. DISS provides comprehensive capabilities to perform processing and verification of security clearances for all DoD military personnel, civilians and contractors including the technology and processes to implement Continuous Evaluation.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	15.326	5.197	-	5.197
Total Adjustments	0.000	15.326	5.197	-	5.197
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Element Realignment	-	15.326	0.000	-	0.000
• Adjustment to Budget	-	-	5.197	-	5.197

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. The decrease in funding from FY2022 to FY2023 is the realignment of CE funding to PE 0608197V National Background Investigative Services (NBIS) Software Pilot Program.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303430V / <i>Federal Investigative Services Information Technology</i>				<b>Project (Number/Name)</b> 000 / <i>Defense Information System for Security (DISS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000: <i>Defense Information System for Security (DISS)</i>	0.000	0.000	15.326	5.197	0.000	5.197	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Defense Counterintelligence Security Agency (DCSA) is a strategic asset to the nation and our allies - continuously ensuring a trusted federal, industrial, and affiliated workforce, and enabling industry's delivery of uncompromised capabilities by leveraging advanced technologies and innovation. DCSA uniquely blends critical technology protection, trusted personnel vetting, counterintelligence, and professional education and certification to advance and preserve America's strategic edge.

The Defense Information System for Security (DISS) transferred to DCSA from DHRA/ DMDC in FY2021. The DISS consolidates the DoD personnel security mission into an enterprise adjudicative case management system that will automate and improve national investigative and adjudicative standards to eliminate costly and inefficient work processes and increase information collaboration across the community. DISS provides comprehensive capabilities to perform processing and verification of security clearances for all DoD military personnel, civilians and contractors including the technology and processes to implement Continuous Evaluation.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Defense Information System for Security (DISS)/ Continuous Evaluations Data Feeds	-	15.326	5.197
<p><b>Description:</b> The Defense Information System for Security (DISS) consolidates the DoD personnel security mission into an enterprise adjudicative case management system that will automate and improve national investigative and adjudicative standards to eliminate costly and inefficient work processes and increase information collaboration across the community to provide comprehensive capabilities to perform processing and verification of security clearances for all DoD military personnel, civilians, and contractors including the technology and processes that need to be addressed in order to implement Continuous Evaluation.</p> <p><b>FY 2022 Plans:</b> DCSA will move to a limited operational environment to allow the transition of the JPAS customers and data to DISS to support the sunset of JPAS and provide continuing enhancements required by the DoD, Federal, and industrial customer base. Expands and modifies systems to enhance vetting with access to multi domain data sources. Data feeds are required to comply with policy from the Office of the Director of National Intelligence for reciprocity.</p> <p><b>FY 2023 Plans:</b> DCSA is operating DISS in support of the Department's enterprise adjudicative case management system. RDT&amp;E Funds provide continuing improvement and integration of work processes and information collaboration. Expands and modifies systems to enhance vetting with access to multi domain data sources.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430V / <i>Federal Investigative Services Information Technology</i>	<b>Project (Number/Name)</b> 000 / <i>Defense Information System for Security (DISS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The decrease from FY2022 reflects the realignment of funds to PE 0608197V, NBIS Software Pilot Program.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	15.326	5.197

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DCSA acquisition strategy would use a variety of vehicles such as Blanket Purchase Agreements (BPA), and multiple or single award contracts for the development of new applications, enhancement of other applications, and perform system integration with COTS and GOTS solutions and technology. These efforts will reduce the contract award process lead time and contract overhead, improve technical solutions, deployments, and deliver more effective and efficient automation projects for DCSA.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Counterintelligence and Security Agency</b>	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430V / Federal Investigative Services Information Technology	<b>Project (Number/Name)</b> 000 / Defense Information System for Security (DISS)
--	---	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Information System for Security (DISS)	Option/TBD	TBD : TBD	-	-		4.426		5.197		-		5.197	Continuing	Continuing	-
CE Data Feeds	TBD	TBD : TBD	-	-		10.900		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		15.326		5.197		-		5.197	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	-		15.326		5.197		-		5.197	Continuing	Continuing	N/A

Remarks



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency			<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430V / <i>Federal Investigative Services Information Technology</i>	<b>Project (Number/Name)</b> 000 / <i>Defense Information System for Security (DISS)</i>	

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Defense Information System for Security (DISS)</b>																												
Defense Information System for Security (DISS)																												
<b>CE DATA FEEDS</b>																												
CE DATA FEEDS																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430V / <i>Federal Investigative Services Information Technology</i>	<b>Project (Number/Name)</b> 000 / <i>Defense Information System for Security (DISS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Defense Information System for Security (DISS)</i></b>				
Defense Information System for Security (DISS)	4	2022	3	2024
<b><i>CE DATA FEEDS</i></b>				
CE DATA FEEDS	4	2022	4	2022

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305128V I <i>Security and Investigative Activities</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	2.400	5.700	8.800	0.450	-	0.450	0.000	0.000	0.000	0.000	Continuing	Continuing
000: <i>Social Media</i>	2.400	5.700	8.800	0.450	-	0.450	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Starting in FY 2022, the Vetting Risk Operations (VRO) develops and implements a scalable capability to include Publicly Available Electronic Information (PAEI), including social media, into background investigations in accordance with Security Executive Agent Directive 5 (SEAD 5) and aligned to the Trusted Workforce 2.0 personnel vetting reform initiative. VRO access to PAEI also fulfills the Secretary's requirements to improve the vetting of International Military Students who intend to or are currently receiving training within the continental U.S. The investment develops collection, analysis, and reporting tools for PAEI, including as social media, in support of national security eligibility determinations. DoD studies have identified PAEI as a unique data source to identify key behaviors that are potentially derogatory under the Allegiance, Foreign Influence, Foreign Preference, and Personal Conduct guidelines of the National Security Adjudication Guidelines. Data received from PAEI is often not found anywhere else in the course of the personnel vetting cycle. To utilize PAEI within the Department, on a national security population of ~3.6 million individuals, the Department is developing a scalable, cost effective, and automated capability. A PAEI investment will deliver a capability flexible to changing cultural conditions, policy requirements, and emerging threats, while simultaneously able to constantly monitor millions of people on hundreds of social media platforms with billions of individual data points, aggregate and curate that data, identify potential risk, and seamlessly provide notification in a digestible analytical product to a human for risk mitigation.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	5.700	8.800	0.000	-	0.000
Current President's Budget	5.700	8.800	0.450	-	0.450
Total Adjustments	0.000	0.000	0.450	-	0.450
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	0.450	-	0.450

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include Out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305128V / Security and Investigative Activities	<b>Project (Number/Name)</b> 000 / Social Media
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000: Social Media	2.400	5.700	8.800	0.450	-	0.450	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Starting in FY 2022, the Vetting Risk Operations (VRO) will develop and implements a scalable capability to include Publicly Available Electronic Information (PAEI), including social media, into background investigations in accordance with Security Executive Agent Directive 5 (SEAD 5) and aligned to the Trusted Workforce 2.0 personnel vetting reform initiative. VRO access to PAEI also fulfills the Secretary's requirements to improve the vetting of International Military Students who intend to or are currently receiving training within the continental U.S. The investment develops collecting, collating and assessment tools for PAEI, including social media, in support of national security eligibility determinations. DoD studies have identified PAEI as a unique data source to identify key behaviors that are potentially derogatory under the Allegiance, Foreign Influence, Foreign Preference, and Personal Conduct guidelines of the National Security Adjudication Guidelines. Data received from PAEI is often not found anywhere else in the course of the personnel vetting cycle. To utilize PAEI within the Department, on a national security population of ~3.6 million individuals, the Department is developing a scalable, cost effective, and automated capability. A PAEI investment will deliver a capability flexible to policy requirements, and emerging threats, while simultaneously able to constantly monitor millions of people on hundreds of social media platforms with billions of individual data points, aggregate and curate that data, identify potential risk, and seamlessly provide notification in a digestible analytical product to a human for risk mitigation.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Social Media	5.700	8.800	0.450
<p><b>Description:</b> Starting in FY 2022, the Vetting Risk Operations (VRO) develops and implements a scalable capability to include Publicly Available Electronic Information (PAEI), including social media, into background investigations in accordance with Security Executive Agent Directive 5 (SEAD-5) and aligned to the Trusted Workforce 2.0 personnel vetting reform initiative. VRO access to PAEI also fulfills the Secretary's requirements to improve the vetting of International Military Students who intend to or are currently receiving training within the continental U.S. The investment develops collection, analysis, and reporting tools for PAEI, including as social media, in support of national security eligibility determinations. DoD studies have identified PAEI as a unique data source to identify key behaviors that are potentially derogatory under the Allegiance, Foreign Influence, Foreign Preference, and Personal Conduct guidelines of the National Security Adjudication Guidelines. Data received from PAEI is often not found anywhere else in the course of the personnel vetting cycle. To utilize PAEI within the Department, on a national security population of ~3.6 million individuals, the Department is developing a scalable, cost-effective, and automated capability. A PAEI investment will deliver a capability flexible to changing cultural conditions, policy requirements, and emerging threats, while simultaneously able to constantly monitor millions of people on hundreds of social media platforms with billions of individual data points, aggregate and curate that data, identify potential risk, and seamlessly provide notification in a digestible analytical product to a human for risk mitigation.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305128V / <i>Security and Investigative Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Social Media</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2022 Plans:</i></b> \$8.8 million of FY2022 RDT&amp;E provide the initial research and development funding to establish a scalable and cost-effective social media screening capabilities. Those capabilities should enhance current vetting processes, and identify potentially disqualifying information under the National security adjudication guidelines such as Criminal Conduct, Foreign Preference, and Allegiance. That would include activities associated with terrorism and domestic extremism.</p> <p><b><i>FY 2023 Plans:</i></b> Develops the PAEI baseline system</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Funding is to sustain the development of the PAEI baseline system</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.700	8.800	0.450

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

**Appropriation/Budget Activity** 0400 / 7 **R-1 Program Element (Number/Name)**  
PE 0305128V / Security and Investigative A ctivities **Project (Number/Name)**  
000 / Social Media

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>		<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>				
Risk Rating Tool - GOTS Model Development	MIPR	Army Analytics Group : Monterey, California	2.200	5.500	Sep 2020	-		-		-		-	Continuing	Continuing	-	
Risk Rating Tool - COTS Model Development	MIPR	Army Analytics Group : Monterey, California	0.200	0.200	Aug 2020	-		-		-		-	Continuing	Continuing	-	
Social Media	C/FFP	TBD : TBD	-	-		8.800		0.450		-		0.450	Continuing	Continuing	-	
<b>Subtotal</b>			2.400	5.700		8.800		0.450		-		0.450	Continuing	Continuing	N/A	

	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	2.400	5.700	8.800	0.450	-	0.450	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305128V / <i>Security and Investigative Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Social Media</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Risk Rating Tool</b>	
Production and Deployment	██████████
<b>Social Media</b>	
Production and Deployment	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Risk Rating Tool</b>	
Production and Deployment	██████████
<b>Social Media</b>	
Production and Deployment	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305128V / <i>Security and Investigative Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Social Media</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Risk Rating Tool</i></b>				
Production and Deployment	3	2020	4	2021
<b><i>Social Media</i></b>				
Production and Deployment	2	2022	3	2023



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305133V I <i>Industrial Security Activities</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	1.800	-	1.800	2.134	2.142	2.122	2.178	Continuing	Continuing
0000: <i>Industrial Security Activities</i>	-	0.000	0.000	1.800	-	1.800	2.134	2.142	2.122	2.178	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Critical Technology Protection Integration Cell (CTPIC) is a whole-of-government engagement effort to deter, detect, and disrupt the unauthorized technology transfer activities of our adversaries. CTPIC serves as the DoD focal point for assessments, coordination, integration, and operational information sharing related to critical technology protection across all phases of research, development, and sustainment. This funding is needed for data access and analysis tools that support prioritization of limited resources and direct focused engagements addressing targeted threat information and mitigation actions.

Applied Research Laboratory for Intelligence and Security (ARLIS) program management office oversees the University Affiliated Research Center (UARC) to provide strategic research and development to solve intelligence and security problems. ARLIS overlays human behavior and social science and culture and language expertise with expertise, research, and development in emerging and advanced technologies to solve increasingly technical, but human-centered intelligence and security challenges. RDT&E funding will be used for strategic research efforts that broadly benefit the Defense Security Enterprise (DSE) and develop capability and capacity at ARLIS that work sponsors can build on.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	1.800	-	1.800
Total Adjustments	0.000	0.000	1.800	-	1.800
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget	-	-	1.800	-	1.800

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0305133V / Industrial Security Activities				Project (Number/Name) 0000 / Industrial Security Activities			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
0000: <i>Industrial Security Activities</i>	-	0.000	0.000	1.800	-	1.800	2.134	2.142	2.122	2.178	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

CTPIC is a whole-of-government engagement effort to deter, detect, and disrupt the unauthorized technology transfer activities of our adversaries. CTPIC serves as the DoD focal point for assessments, coordination, integration, and operational information sharing related to critical technology protection across all phases of research, development, and sustainment. This funding is needed for data access and analysis tools that support prioritization of limited resources and direct focused engagements addressing targeted threat information and mitigation actions.

ARLIS program management office oversees the sponsored University Affiliated Research Center (UARC) to provide strategic research and development to solve intelligence and security problems. ARLIS overlays human behavior and social science and culture and language expertise with expertise, research, and development in emerging and advanced technologies to solve increasingly technical, but human-centered intelligence and security challenges. RDT&E funding will be used for strategic research efforts that broadly benefit the Defense Security Enterprise (DSE) and develop capability and capacity at ARLIS that work sponsors can build on.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> CTPIC	0.000	-	0.700
<b>Description:</b> CTPIC - This funding is intended to pay for maintenance and operational development of the CLEAR PROSPECT tool to enable targeted academic engagement and research protection activities, but may be applied to other similar tools based on prioritization of technology protection efforts across the Department. This funding will allow the CTPIC to develop from a strategic integrator to a proactively engaged organization that brings targeted tools and capabilities to the critical technology protection community and actively drives engagement with industry and academia.			
<b>FY 2023 Plans:</b> CTPIC - Maintain access to critical data sources and continue to develop existing tools to better deliver targeted threat information that informs research protection engagements in a usable format for applicable stakeholders. Funding in FY23 is to enable the centralization of critical technology protection information and analysis activities in support of the whole-of-government effort to protect critical technologies.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding supports the Industrial Security Activities.			
<b>Title:</b> ARLIS	0.000	-	1.100

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305133V / <i>Industrial Security Activities</i>	<b>Project (Number/Name)</b> 0000 / <i>Industrial Security Activities</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
<p><b>Description:</b> ARLIS - This funding will enable development capability and capacity at ARLIS that work sponsors across the DSE can build on optimizing of our research and innovation efforts. An example of this is a project ARLIS is currently leading to produce a playbook solution for cleared defense contractors to leverage classified cloud services, which provides substantially increased security and monitoring capabilities for contractor classified systems, as well as access to collaboration and productivity tools that can significantly increase efficiency and innovation for cleared defense contractors working on critical classified projects for the Department.</p> <p><b>FY 2023 Plans:</b> Develop core research projects supportive of the DSE Strategy</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding supports the Industrial Security Activities.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	1.800

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305133V / <i>Industrial Security Activities</i>	<b>Project (Number/Name)</b> 0000 / <i>Industrial Security Activities</i>
--	---	--

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>CTPIC</b>	
ARLIS	[REDACTED]

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305133V / <i>Industrial Security Activities</i>	<b>Project (Number/Name)</b> 0000 / <i>Industrial Security Activities</i>
--	---	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>CTPIC</b>				
ARLIS	2	2023	4	2024

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305146V / <i>Defense Joint Counterintelligence Activities</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	4.000	3.820	4.622	0.000	4.622	2.295	1.535	0.000	0.000	Continuing	Continuing
000: <i>Adaptive Data Exchange (ADX)</i>	0.000	4.000	3.820	4.622	0.000	4.622	2.295	1.535	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Counterintelligence Security Agency (DCSA) is a strategic asset to the nation and our allies - continuously ensuring a trusted federal, industrial, and affiliated workforce, and enabling industry's delivery of uncompromised capabilities by leveraging advanced technologies and innovation. DCSA uniquely blends critical technology protection, trusted personnel vetting, counterintelligence, and professional education and certification to advance and preserve America's strategic edge.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	4.000	3.820	4.622	-	4.622
Total Adjustments	4.000	3.820	4.622	-	4.622
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Element Realignment	-	3.820	-	-	-
• Adjustment to the Budget	4.000	-	4.622	-	4.622

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The Adaptive Data Exchange (ADX) is an Advanced Persistent Threat (APT) focused cyber threat intelligence sensor platform applying advanced, threat adaptive analysis techniques for early alerting and engagement of the cyber adversary across the entire kill chain.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305146V / Defense Joint Counterintelligence Activities	<b>Project (Number/Name)</b> 000 / Adaptive Data Exchange (ADX)
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000: Adaptive Data Exchange (ADX)	0.000	4.000	3.820	4.622	0.000	4.622	2.295	1.535	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Defense Counterintelligence Security Agency (DCSA) administers ADX funding. Funds are provided to FBI NCIJTF for continuing development and integration of advanced, data adaptive analytic techniques that provide near real time, high confidence detection across network perimeter, internal and distributed cyber threat activities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Adaptive Data Exchange (ADX)	4.000	3.820	4.622
<b>Description:</b> ADX generated multiple technical Intelligence Information Reports (IIR) and other information pertaining to Advanced Persistent Threat (APT) disseminated to the US Intelligence Community.			
<b>FY 2022 Plans:</b> Enable expanded teaming and integration with additional government and industry stakeholders to integrate applications and data; Scale up and out platform architecture, deployments and analysis.			
<b>FY 2023 Plans:</b> Continuous development of capabilities, deployment, operations and maintenance of ADX devices and access points in accordance with DoD critical technology protection priorities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase from FY2022 to FY2023 sustains continued development of ADX devices and applications			
<b>Accomplishments/Planned Programs Subtotals</b>	4.000	3.820	4.622

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

FY 2021-2022, O&M/R&D Services, 99%; hardware/software/data, 1%  
 FY2022-2023, O&M/R&D Services, 96.5%; hardware/software/data, 3.5%



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305146V / <i>Defense Joint Counterintelligence Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Adaptive Data Exchange (ADX)</i>

FY2023-2024, O&M/R&D Services, 98%; hardware/software/data, 2%



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305146V / <i>Defense Joint Counterintelligence Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Adaptive Data Exchange (ADX)</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Adaptive Data Exchange (ADX)</i></b>	
Adaptive Data Exchange (ADX)	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305146V / <i>Defense Joint Counterintelligence Activities</i>	<b>Project (Number/Name)</b> 000 / <i>Adaptive Data Exchange (ADX)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Adaptive Data Exchange (ADX)</i></b>				
Adaptive Data Exchange (ADX)	3	2022	4	2024

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	31.420	3.000	3.000	9.403	0.000	9.403	2.971	2.922	2.825	3.110	Continuing	Continuing
002: <i>Insider Threat</i>	31.420	3.000	3.000	9.403	0.000	9.403	2.971	2.922	2.825	3.110	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The two programs which fall under Insider Threat are DoD Insider Threat Management and Analysis Center (DITMAC) and National Center for Credibility Assessment (NCCA)

DITMAC: Provides an integrated capability to collect and analyze information for insider threat detection and mitigation. The system gathers, integrates, reviews, assesses, and responds to information derived from DoD Insider Threat hubs, Counterintelligence (CI), security, cybersecurity, civilian and military personnel management, workplace violence, anti-terrorism risk management, law enforcement, user activity monitoring on DoD information networks, and other sources as necessary and appropriate to support the identification, mitigation, and countering of insider threats to address current and emerging threats to DoD personnel, assets and information.

The DITMAC System of Systems (DSoS) requires additional capabilities to support installation-level reporting in support of the Counter Extremist Activity Working Group (CEAWG) requirements in implementing the Prevention, Assistance, and Response (PAR) program. It also requires adaptation to allow for automated data ingest which will directly support analytic efforts to focus on areas of increased risk, such as potential violent extremist. To meet these goals, additional RDTE funding requested here is essential to develop capabilities to meet emerging operational requirements.

DCSA will acquire, develop, and deploy digital automation and continuous vetting capabilities (i.e. data integration, link analysis, anomaly detection, artificial intelligence, business processing, advanced analytics) to comply with NDAA sections 845 & 847 to enhance technology capabilities to expand efforts to identify, mitigate and evaluate supply chain risks, including Foreign Ownership Control or Influence (FOCI) across the classified and unclassified defense industrial base.

NCCA: Conducts credibility assessment training and education, research and development, technical support, and oversight activities for federal polygraph and credibility assessment mission partners. This program is to clinically and scientifically evaluate ocular-motor deception detection capabilities and determine their performance parameters, including how accurately they are able to classify deceptive and non-deceptive individuals. This program is to clinically and scientifically evaluate ocular-motor deception detection capabilities and determine their performance parameters, including how accurately they are able to classify deceptive and non-deceptive individuals. These funds will support the NCCA efforts to collect EyeDetect data from one or more field locations.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	3.000	0.000	0.000	-	0.000
Current President's Budget	3.000	3.000	9.403	-	9.403
Total Adjustments	0.000	3.000	9.403	-	9.403
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	3.000			
• Congressional Directed Transfers	0.000	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to budget	-	-	9.403	-	9.403

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 002: *Insider Threat*

Congressional Add: *Ocular-motor deception detection (ODT) capabilities*

	<b>FY 2021</b>	<b>FY 2022</b>
	-	3.000
Congressional Add Subtotals for Project: 002	-	3.000
Congressional Add Totals for all Projects	-	3.000

**Change Summary Explanation**

FY2023 funding increase reflects the fact that the FY2022 President's Budget did not include out-year funding.

FY2022 Congressional +\$3 million increase to DCSA Insider Threat Program Element supporting NCCA Ocular-motor deception detection (ODT) capabilities

IN FY 2023 The DITMAC System of Systems (DSoS) requires additional capabilities to support installation-level reporting in support of the Counter Extremist Activity Working Group (CEAWG) requirements in implementing the Prevention, Assistance, and Response (PAR) program.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>				<b>Project (Number/Name)</b> 002 / <i>Insider Threat</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
002: <i>Insider Threat</i>	31.420	3.000	3.000	9.403	0.000	9.403	2.971	2.922	2.825	3.110	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Provides an integrated capability to collect and analyze information for insider threat detection and mitigation. The system gathers, integrates, reviews, assesses, and responds to information derived from DoD Insider Threat hubs, Counterintelligence (CI), security, cybersecurity, civilian and military personnel management, workplace violence, anti-terrorism risk management, law enforcement, user activity monitoring on DoD information networks, and other sources as necessary and appropriate to support the identification, mitigation, and countering of insider threats to address current and emerging threats to DoD personnel, assets and information.

The DITMAC System of Systems (DSoS) requires additional capabilities to support installation-level reporting in support of the Counter Extremist Activity Working Group (CEAWG) requirements in implementing the Prevention, Assistance, and Response (PAR) program. It also requires adaptation to allow for automated data ingest which will directly support analytic efforts to focus on areas of increased risk, such as potential violent extremist. To meet these goals, additional RDTE funding requested here is essential to develop capabilities to meet emerging operational requirements.

DCSA will acquire, develop, and deploy digital automation and continuous vetting capabilities (i.e. data integration, link analysis, anomaly detection, artificial intelligence, business processing, advanced analytics) to comply with NDAA sections 845 & 847 to enhance technology capabilities to expand efforts to identify, mitigate and evaluate supply chain risks, including Foreign Ownership Control or Influence (FOCI) across the classified and unclassified defense industrial base.

NCCA: Conducts credibility assessment training and education, research and development, technical support, and oversight activities for federal polygraph and credibility assessment mission partners. This program is to clinically and scientifically evaluate ocular-motor deception detection capabilities and determine their performance parameters, including how accurately they are able to classify deceptive and non-deceptive individuals. These funds will support the NCCA efforts to collect EyeDetect data from one or more field locations.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> DITMAC System of System (DSoS)	3.000	-	9.403
<b>Description:</b> Continued support for the Insider Threat mission via the collection, processing and storage of case information in support of the Insider Threat mission. Serves as a secure automated mechanism for the transmission of information between DoD Components and the DITMAC.			
<b>FY 2023 Plans:</b> Support installation-level reporting in support of the Counter Extremist Activity Working Group (CEAWG) requirements in implementing the Prevention, Assistance, and Response (PAR) program.			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 002 / <i>Insider Threat</i>
--	---	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
Requires adaptation to allow for automated data ingest which will directly support analytic efforts to focus on areas of increased risk, such as potential violent extremist.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> FY2023 increase is essential to develop capabilities to meet emerging operational requirements.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.000	-	9.403

	FY 2021	FY 2022
<b><i>Congressional Add:</i></b> Ocular-motor deception detection (ODT) capabilities	-	3.000
<b><i>FY 2022 Plans:</i></b> To continue efforts to collect field data for the purpose of having non-clinical data to evaluate along-side of pristine clinical data collected.		
<b>Congressional Adds Subtotals</b>	-	3.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 0305327V / Insider Threat

**Project (Number/Name)**  
002 / Insider Threat

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
DITMAC System Of Systems	C/TBD	TBD : TBD	31.420	-		-		9.403		-		9.403	-	-	-
National Center for Credibility Assessment	MIPR	DoE : TBD	-	3.000	Aug 2021	-		-		-		-	Continuing	Continuing	-
Ocular-motor deception Testing (ODT) capability	TBD	TBD : TBD	-	-		3.000		-		-		-	-	-	-
<b>Subtotal</b>			31.420	3.000		3.000		9.403		-		9.403	Continuing	Continuing	N/A

	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	31.420	3.000	3.000	9.403	-	9.403	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 002 / <i>Insider Threat</i>
--	---	---

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>DITMAC System Of Systems</i></b>	
Production Development	████████████████████
<b><i>National Center for Credibility Assessment</i></b>	
Production Development	████████████████████
<b><i>Ocular-motor deception Testing (ODT) capability</i></b>	
Production Development	████████████████████

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 002 / <i>Insider Threat</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>DITMAC System Of Systems</i></b>				
Production Development	4	2023	4	2024
<b><i>National Center for Credibility Assessment</i></b>				
Production Development	2	2023	4	2024
<b><i>Ocular-motor deception Testing (ODT) capability</i></b>				
Production Development	4	2022	4	2023

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 8: Software and Digital Technology Pilot Programs</i>	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	105.673	123.570	132.524	0.000	132.524	0.000	0.000	0.000	0.000	Continuing	Continuing
000: <i>National Background Investigation Services - Software Pilot Program</i>	0.000	105.673	123.570	132.524	0.000	132.524	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Counterintelligence and Security Agency (DCSA) acquires, develops, and deploys software to support the development of a modernized Federal Government background investigations information technology (IT) system(s) to replace the current OPM legacy IT systems and provide a highly secured infrastructure. DoD assumed modernization efforts beginning in FY 2017, as decided by the Interagency Deputies Committee and the Office of Management and Budget (OMB). Funds support the development, sustainment, technical refresh of hardware and software, Cloud migration, and program management costs to develop and field a modernized Federal Investigation System. This modernized data architecture will leverage and extend the existing secure Information Technology capabilities inherent to DoD infrastructure to the federal wide background investigation processes and data archives. This approach will provide essential security information, protect the identities, lives, and livelihoods of the BI applicants and the family members and associates identified as part of BI records. The aim is to avert or eliminate the continuous and dynamic threat of identity theft, financial espionage and other attacks on this personal information, while providing a secure basis for background investigations necessary to Federal and DoD operations. Using proven data architecture and prioritizing security, DCSA will leverage critical and inherent information technology (IT) security capabilities; identify means and methods to efficiently and securely access digital services; enhance systems necessary to operate the background investigation processes and associated vast reservoirs of data and interfaces; provide Government wide tools to assist agencies with workforce management; and, develop and provide investigative products that comply with the new, Federal Investigations Standards and Workforce 2.0. Resources will be used to implement and sustain agency network upgrades and security software maintenance to ensure a stronger, more reliable, and better protected network architecture for conducting background investigations. Costs include program management activities, payroll for security specialists, engineers, data architects, and business process management activities to develop, test, and deploy the new capability. As capabilities are fielded NBIS and DCSA will provide system maintenance, security licenses and operational support to the system and users worldwide.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 8: Software and Digital Technology Pilot Programs</i>	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	105.673	123.570	0.000	-	0.000
Current President's Budget	105.673	123.570	132.524	-	132.524
Total Adjustments	0.000	0.000	132.524	-	132.524
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	132.524	-	132.524

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding

The FY 2023 increase will continue the agile development on the secure end to end modernized architecture for USG Personnel Vetting Enterprise. The increase provides investigative, adjudicative and continuous vetting capabilities consistent with emerging Trusted Workforce 2.0 requirements supporting an initial operating capability. Funding supports the integration of Defense Information System for Security (DISS) functionality into the NBIS. The funding increase includes the Continuous Evaluation/Continuous Vetting (CE/CV) on the high-side that automates the processing of alerts that come in on the two classified fabrics. In addition, funding will support the transition to NBIS supporting the DoD case management requirements and provides support to start the decommissioning of high-cost legacy services.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / National Background Investigation Services - Software Pilot Program	<b>Project (Number/Name)</b> 000 / National Background Investigation Services - Software Pilot Program
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000: National Background Investigation Services - Software Pilot Program	0.000	105.673	123.570	132.524	0.000	132.524	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This program is in Budget Activity 8, Software and Digital Technology Pilot Program because this budget activity includes funding provided for expenses necessary for agile development, test and evaluation, production and modification, and the operation and maintenance of these programs.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> NBIS - Development</p> <p><b>Description:</b> NBIS development will be used in support of government-wide background investigation process; replacing the OPM's legacy systems that were breached in 2015. The system establishes and streamlines the requirements intake (software factory model), implements the DevSecOps pipeline, standardizes test processes, automates unit component, and integrates testing, implements cyber processes to achieve continuous Authority To Operate (cATO), consolidates help desk activities, and enhances monitoring capabilities.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Support investigations and adjudications.</li> <li>- Develop performance to optimize workflows, customer required enhancements, refine existing analytics, develop additional analytics in meeting customer requirements.</li> <li>- Develop safely, securely completed transfer investigation and adjudication data from legacy systems into secure NBIS data repositories.</li> <li>- Continue transferring Fingerprint operations from legacy services and data repositories onto the Gov Cloud environment.</li> <li>- Place NBIS services on the main DoD networks while also supporting the Federal workforce.</li> </ul> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue the Agile development on the secure end-to-end modernized architecture for USG.</li> <li>- The NBIS investigative, adjudicative and continuous vetting services will ensure the customer requirements required to support Trusted Workforce 2.0 requirements will support an initial operating capability.</li> <li>- Support the integration of DISS functionality into the decommissioning of DISS.</li> </ul>	105.673	65.803	78.316

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>	<b>Project (Number/Name)</b> 000 / <i>National Background Investigation Services - Software Pilot Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- NBIS development of DoD and Federal case management requirements will support the start of the decommissioning process for the existing high-cost legacy services.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase is attributed to the funding to support finishing the Atlas development on the High-side networks. To complete the accelerated development and deployment of automated data feeds supporting expanded operations of the DoD Continuous Evaluation/Continuous Validation mission in support of Trusted Workforce. Increase: Funding realignment from PE 0303430V</p>				
<p><b>Title:</b> NBIS - Sustainment</p> <p><b>Description:</b> NBIS sustainment will support the continued operations of legacy Systems while standing up mission operations and hosting infrastructure for the replacement NBIS system.</p> <p><b>FY 2022 Plans:</b> Continue to support DMDC capabilities running in the DISA Data Centers used by the NBIS and legacy services along with the COOP function. - Continue to fund programmatic and operations and support contracts to provide Program Control, Financial and Budget support as well as the Operations functions to support the Cloud environment and transition of existing and new services into the GovCloud platform. - Support funding travel, non-centralized training, credit card, supplies, new laptops, Joint Enterprise Licensing Agreement (JELA) costs, and common licensing costs in support of running a Program Office.</p> <p><b>FY 2023 Plans:</b> -Continue to support legacy capabilities that are running in the DISA Data Centers until they are integrated into NBIS and decommissioned or they are moved into the Gov Cloud environment. - Continue to fund programmatic and operations and support contracts to provide Program Control, Financial and Budget support as well as the operations functions to support the Cloud environment and transition of existing and new services into the GovCloud platform. NBIS will fund travel, non-centralized training, credit card, supplies, new laptops, Joint Enterprise Licensing Agreement (JELA) costs, and common licensing</p>		0.000	57.767	54.208



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>	<b>Project (Number/Name)</b> 000 / <i>National Background Investigation Services - Software Pilot Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
costs in support of running a PEO and Program Office.				
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase: Funding realignment from PE 0303430V				
<b>Accomplishments/Planned Programs Subtotals</b>		105.673	123.570	132.524
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>	<b>Project (Number/Name)</b> 000 / <i>National Background Investigation Services - Software Pilot Program</i>
--	--	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Key Capability Development	TBD	TBD : TBD	-	60.596		59.037		60.928	May 2023	-		60.928	Continuing	Continuing	-
Testing & Cyber Assessment	MIPR	DISA : JITC	-	5.873		5.887		6.259	Oct 2022	-		6.259	Continuing	Continuing	-
Infrastructure	MIPR	TBD : TBD	-	21.563		30.592		20.523	Oct 2022	-		20.523	Continuing	Continuing	-
Mission Support	TBD	TBD : TBD	-	9.082		17.669		24.213	Jan 2022	-		24.213	Continuing	Continuing	-
Program Management Support	TBD	TBD : TBD	-	8.559		10.385		12.465	Aug 2023	-		12.465	Continuing	Continuing	-
CE Data Feeds	TBD	TBD : TBD	-	-		-		8.136	Oct 2022	-		8.136	Continuing	Continuing	-
<b>Subtotal</b>			-	105.673		123.570		132.524		-		132.524	Continuing	Continuing	N/A

**Remarks**  
 The Defense Counterintelligence and Security Agency (DCSA) acquires, develops, and deploys software to support the agile development of a modernized Federal Government background investigations information technology (IT) system(s) to replace the legacy OPM background investigative legacy IT systems, and provide a highly secured infrastructure. DoD assumed modernization efforts beginning in FY 2017, as decided by the Interagency Deputies Committee and the Office of Management and Budget (OMB). These Funds support the DevSecOps development, sustainment, technical refresh of hardware and software, Cloud migration, and program management costs to develop and field a modernized digital Federal Investigation System (FIS). This modernized data architecture leverages and extends the existing secure cloud based Information Technology capabilities inherent to DoD infrastructure for the FIS enterprise service to the other Federal Agencies for their federal wide background investigation processes and data archive purposes. This approach will securely provide essential security information and protect the identities, lives, and livelihoods of the BI applicants, their family members, and associates who are identified as part of BI records. The aim is to avert the continuous and dynamic threat of identity theft, financial espionage and other attacks on personal information, while providing a secure basis for background investigations necessary to Federal and DoD operations.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	-	105.673	123.570	132.524	-	132.524	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency		Date: April 2022
Appropriation/Budget Activity 0400 / 8	R-1 Program Element (Number/Name) PE 0608197V / National Background Investigation Services - Software Pilot Program	Project (Number/Name) 000 / National Background Investigation Services - Software Pilot Program

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Key Capability Development</b>	
Key Capability Development	██████████
<b>Testing &amp; Cyber Assessment</b>	
Testing & Cyber Assessment	██████████
<b>Infrastructure</b>	
Infrastructure	██████████
<b>Mission Support</b>	
Mission Support	██████████
<b>Program Management Support</b>	
Program Management Support	██████████
<b>Program Support</b>	
Program Management Support	██████████
<b>Capability Development</b>	
Key Capability Development	██████████
<b>Cyber Assessment &amp; testing</b>	
Cyber Assessment & testing	██████████
<b>Infrastructure support</b>	
Infrastructure support	██████████
<b>Support Mission</b>	
Support Mission	██████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0608197V / <i>National Background Investigation Services - Software Pilot Program</i>	<b>Project (Number/Name)</b> 000 / <i>National Background Investigation Services - Software Pilot Program</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Key Capability Development</b>				
Key Capability Development	2	2023	4	2024
<b>Testing &amp; Cyber Assessment</b>				
Testing & Cyber Assessment	1	2023	4	2024
<b>Infrastructure</b>				
Infrastructure	1	2023	4	2024
<b>Mission Support</b>				
Mission Support	2	2023	4	2024
<b>Program Management Support</b>				
Program Management Support	4	2023	4	2024
<b>Program Support</b>				
Program Management Support	4	2023	4	2024
<b>Capability Development</b>				
Key Capability Development	2	2023	3	2024
<b>Cyber Assessment &amp; testing</b>				
Cyber Assessment & testing	1	2023	3	2024
<b>Infrastructure support</b>				
Infrastructure support	1	2023	3	2024
<b>Support Mission</b>				
Support Mission	2	2023	4	2024

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 8: Software and Digital Technology Pilot Programs</i>	<b>R-1 Program Element (Number/Name)</b> PE 0308609V / <i>Software and Digital Technology Pilot Program</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	14.749	-	14.749	58.508	56.063	49.823	58.844	Continuing	Continuing
0000: <i>National Industrial Security System</i>	-	0.000	0.000	14.749	-	14.749	58.508	56.063	49.823	58.844	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Program management office with programmatic oversight of all industrial security current capabilities to include the system of record for facilities clearance information and industrial security oversight, the official system that allows DCSA to improve assessment and mitigation of risks related to contractors under Foreign Ownership, Control, or Influence (FOCI), and the newly developed system repository for DD-254 forms. PM National Industrial Security System (NISS) will manage all industrial security emerging capabilities to include technical modernization onto a Common Operating System (COS) Cloud Environment and the integration of operational and other data sources to include government, public, and paid.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	14.749	-	14.749
Total Adjustments	0.000	0.000	14.749	-	14.749
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to budget	-	-	14.749	-	14.749

**Change Summary Explanation**

Beginning in FY2023 funding realigned (\$9.8M) from BA07, Operational System Development, PE 0604130V and (\$4.9M) from DW, Operation and Maintenance to continue the development and sustainment efforts of the NISS under BA08, Software and Digital Technology Pilot Program.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Counterintelligence and Security Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0308609V / <i>Software and Digital Technology Pilot Program</i>	<b>Project (Number/Name)</b> 0000 / <i>National Industrial Security System</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
0000: <i>National Industrial Security System</i>	-	0.000	0.000	14.749	-	14.749	58.508	56.063	49.823	58.844	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This program is in Budget Activity 8, Software and Digital Technology Pilot Program. This budget activity includes funding provided for expenses necessary for agile development, test and evaluation, production and modification, and the operation and maintenance of these programs.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> National Industrial Security System Software Pilot Program (NISS) – Sustainment</p> <p><b>Description:</b> Plan and execute sustainment strategies for the National Industrial Security System (NISS) for Facility Clearances (FCL), National Industrial Security Program (NISP) Contract Classification System (NCCS 2.0) and the 847 Application in support of Public Law 116-92, Sect. 847. Ensure the continuous Authority to Operate (ATO) for NISS FCL and continued delivery of secure, automated, end-to-end IT architecture for the DCSA Critical Technology Protection (CTP) Directorate to enable continuity of operation for entity vetting, risk identification and mitigation for cleared industry.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Provide continuous monitoring for Risk Management Framework (RMF)</li> <li>- Continue supporting software engineering capacity for the required transition from the legacy NISS FCL to the common operating environment in NISS Increment II.</li> <li>- Provide help desk support, bug fixes, enhancements, and upkeep of the NISS for FCL system in the on-premises environment, as well as the 847 Application and NCCS 2.0 hosted in a gov-cloud environment.</li> </ul> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p> <p>The increase from FY2022 is due to the implementation of the Software and Digital Technology Pilot Program. RDTE PE 0604130V, O&amp;M PE 0303430V</p>	0.000	-	4.949
<p><b>Title:</b> NISS – Development</p> <p><b>Description:</b> Provide development activities for NISS, NCCS 2.0, and 847 Application to include multiple data source integrations and enhanced workflow for risk assessment and analytic capabilities. Support the continuous delivery of secure, automated, IT</p>	0.000	-	9.800

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0308609V / <i>Software and Digital Technology Pilot Program</i>	<b>Project (Number/Name)</b> 0000 / <i>National Industrial Security System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
capabilities for the DCSA Critical Technology Protection (CTP) Directorate to enable entity vetting, risk identification and mitigation for cleared industry.			
<b><i>FY 2023 Plans:</i></b> Develop modifications to NISS for FCL, NCCS 2.0, and 847 Applications for integration into the Common Operating System (COS) ensuring requirements under current threat vector within CTP Mission are met.  Design, develop and implement additional capability development and release for the 847 Application and the NCCS 2.0. Planning and designing the NISS for FCL system transition to the cloud and new workflow platform.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase from FY2022 is due to the implementation of the Software and Digital Technology Pilot Program. RDTE PE 0604130V, O&M PE 0303430V			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	14.749

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Counterintelligence and Security Agency										<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 8					<b>R-1 Program Element (Number/Name)</b> PE 0308609V / Software and Digital Technology Pilot Program					<b>Project (Number/Name)</b> 0000 / National Industrial Security System				

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total		Cost To Complete	Total Cost	Target Value of Contract	
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete				Total Cost
NISS - Stainment	TBD	TBD : TBD	-	-		-		4.949		-		4.949	Continuing	Continuing	-		
NISS - Development	TBD	TBD : TBD	-	-		-		9.800		-		9.800	Continuing	Continuing	-		
<b>Subtotal</b>			-	-		-		14.749		-		14.749	Continuing	Continuing	N/A		
				Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total		Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>				-	-		-		14.749		-		14.749	Continuing	Continuing	N/A	

**Remarks**



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0308609V / <i>Software and Digital Technology Pilot Program</i>	<b>Project (Number/Name)</b> 0000 / <i>National Industrial Security System</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>National Industrial Security System</i></b>																												
NISS																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Counterintelligence and Security Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0308609V / <i>Software and Digital Technology Pilot Program</i>	<b>Project (Number/Name)</b> 0000 / <i>National Industrial Security System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>National Industrial Security System</i></b>				
NISS	2	2023	4	2024

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Information Systems Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Information Systems Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 149**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 165**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 167**  
**Exhibit R-2s..... Volume 5 - 169**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	424,909	329,587				
Total Research, Development, Test & Evaluation	424,909	329,587				

R-123FBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Research, Development, Test & Eval, DW		329,587	207,275
Total Research, Development, Test & Evaluation		329,587	207,275

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
-----						
Management Support	32,698	76,775				
Operational Systems Development	392,211	220,038				
Software And Digital Technology Pilot Programs		32,774				
Total Research, Development, Test & Evaluation	424,909	329,587				
<b>Summary Recap of FYDP Programs</b>						
-----						
General Purpose Forces	97,369	55,361				
Intelligence and Communications	192,935	121,444				
Research and Development	128,239	148,447				
Central Supply and Maintenance	1,654	1,690				
Administration and Associated Activities	2,013	2,645				
Space	2,699					
Total Research, Development, Test & Evaluation	424,909	329,587				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<b>Summary Recap of Budget Activities</b> -----			
Management Support		76,775	92,082
Operational Systems Development		220,038	80,206
Software And Digital Technology Pilot Programs		32,774	34,987
<b>Total Research, Development, Test &amp; Evaluation</b>		<b>329,587</b>	<b>207,275</b>
<b>Summary Recap of FYDP Programs</b> -----			
General Purpose Forces		55,361	69,698
Intelligence and Communications		121,444	131,546
Research and Development		148,447	
Central Supply and Maintenance		1,690	1,620
Administration and Associated Activities		2,645	3,141
Space			1,270
<b>Total Research, Development, Test &amp; Evaluation</b>		<b>329,587</b>	<b>207,275</b>

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
Management Support	32,698	76,775				
Operational Systems Development	392,211	220,038				
Software And Digital Technology Pilot Programs		32,774				
<b>Total Research, Development, Test &amp; Evaluation</b>	<b>424,909</b>	<b>329,587</b>				
<b>Summary Recap of FYDP Programs</b>						
General Purpose Forces	97,369	55,361				
Intelligence and Communications	192,935	121,444				
Research and Development	128,239	148,447				
Central Supply and Maintenance	1,654	1,690				
Administration and Associated Activities	2,013	2,645				
Space	2,699					
<b>Total Research, Development, Test &amp; Evaluation</b>	<b>424,909</b>	<b>329,587</b>				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Management Support		76,775	92,082
Operational Systems Development		220,038	80,206
Software And Digital Technology Pilot Programs		32,774	34,987
Total Research, Development, Test & Evaluation		329,587	207,275
<u>Summary Recap of FYDP Programs</u>			
General Purpose Forces		55,361	69,698
Intelligence and Communications		121,444	131,546
Research and Development		148,447	
Central Supply and Maintenance		1,690	1,620
Administration and Associated Activities		2,645	3,141
Space			1,270
Total Research, Development, Test & Evaluation		329,587	207,275

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Information Systems Agency	424,909	329,587				
Total Research, Development, Test & Evaluation	424,909	329,587				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Defense Information Systems Agency		329,587	207,275
Total Research, Development, Test & Evaluation		329,587	207,275

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
183	0208045K	C4I Interoperability	06	21,516	55,361					U
189	0305172K	Combined Advanced Applications	06	7,462	15,696					U
191	0305208K	Distributed Common Ground/Surface Systems	06	3,112	3,073					U
195	0903235K	Joint Service Provider (JSP)	06	608	2,645					U
		Management Support		32,698	76,775					
197	0604532K	Joint Artificial Intelligence	07	128,239	148,447					U
205	0208045K	C4I Interoperability	07	75,853						U
209	0302019K	Defense Info Infrastructure Engineering and Integration	07	17,080	16,233					U
210	0303126K	Long-Haul Communications - DCS	07	10,343	10,275					U
211	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	5,392	4,892					U
215	0303140K	Information Systems Security Program	07	6,217	5,707					U
216	0303150K	Global Command and Control System	07	73,630	4,150					U
217	0303153K	Defense Spectrum Organization	07	18,123	19,302					U
218	0303167K	Pre-Auction Spectrum Relocation Fund	07	247						U
219	0303228K	Joint Regional Security Stacks (JRSS)	07	12,433	9,342					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
--	-----	-----	---	-----	-----	-----	c
183	0208045K	C4I Interoperability	06		55,361	69,698	U
189	0305172K	Combined Advanced Applications	06		15,696	16,171	U
191	0305208K	Distributed Common Ground/Surface Systems	06		3,073	3,072	U
195	0903235K	Joint Service Provider (JSP)	06		2,645	3,141	U
		Management Support			76,775	92,082	
197	0604532K	Joint Artificial Intelligence	07		148,447		U
205	0208045K	C4I Interoperability	07				U
209	0302019K	Defense Info Infrastructure Engineering and Integration	07		16,233	19,145	U
210	0303126K	Long-Haul Communications - DCS	07		10,275	13,195	U
211	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07		4,892	5,746	U
215	0303140K	Information Systems Security Program	07		5,707	7,005	U
216	0303150K	Global Command and Control System	07		4,150	10,020	U
217	0303153K	Defense Spectrum Organization	07		19,302	19,708	U
218	0303167K	Pre-Auction Spectrum Relocation Fund	07				U
219	0303228K	Joint Regional Security Stacks (JRSS)	07		9,342		U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
220	0303267K	Auctioned Spectrum Relocation Fund	07	6,858						U
222	0303667K	Citizen Broadband Radio System	07	16,501						U
235	0305172K	Combined Advanced Applications	07	12,582						U
243	0305208K	Distributed Common Ground/Surface Systems	07	2,955						U
247	0305251K	Cyberspace Operations Forces and Force Support	07							U
257	0708012K	Logistics Support Activities	07	1,654	1,690					U
260	0903235K	Joint Service Provider (JSP)	07	1,405						U
273	1203610K	Teleport Program	07	2,699						U
		Operational Systems Development		392,211	220,038					
277	0303150K	Global Command and Control System	08		32,774					U
		Software And Digital Technology Pilot Progr			32,774					
<b>Total Research, Development, Test &amp; Eval, DW</b>				<b>424,909</b>	<b>329,587</b>					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
220	0303267K	Auctioned Spectrum Relocation Fund	07				U
222	0303667K	Citizen Broadband Radio System	07				U
235	0305172K	Combined Advanced Applications	07				U
243	0305208K	Distributed Common Ground/Surface Systems	07				U
247	0305251K	Cyberspace Operations Forces and Force Support	07			2,497	U
257	0708012K	Logistics Support Activities	07		1,690	1,620	U
260	0903235K	Joint Service Provider (JSP)	07				U
273	1203610K	Teleport Program	07			1,270	U
Operational Systems Development					220,038	80,206	
277	0303150K	Global Command and Control System	08		32,774	34,987	U
Software And Digital Technology Pilot Progr					32,774	34,987	
Total Research, Development, Test & Eval, DW					329,587	207,275	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

UNCLASSIFIED

Defense Information Systems Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N S P.L. 117-103 e Enactment**** c
183	0208045K	C4I Interoperability	06	21,516	55,361				U
189	0305172K	Combined Advanced Applications	06	7,462	15,696				U
191	0305208K	Distributed Common Ground/Surface Systems	06	3,112	3,073				U
195	0903235K	Joint Service Provider (JSP)	06	608	2,645				U
	Management Support			32,698	76,775				
197	0604532K	Joint Artificial Intelligence	07	128,239	148,447				U
205	0208045K	C4I Interoperability	07	75,853					U
209	0302019K	Defense Info Infrastructure Engineering and Integration	07	17,080	16,233				U
210	0303126K	Long-Haul Communications - DCS	07	10,343	10,275				U
211	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	5,392	4,892				U
215	0303140K	Information Systems Security Program	07	6,217	5,707				U
216	0303150K	Global Command and Control System	07	73,630	4,150				U
217	0303153K	Defense Spectrum Organization	07	18,123	19,302				U
218	0303167K	Pre-Auction Spectrum Relocation Fund	07	247					U
219	0303228K	Joint Regional Security Stacks (JRSS)	07	12,433	9,342				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Information Systems Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
183	0208045K	C4I Interoperability	06		55,361	69,698	U
189	0305172K	Combined Advanced Applications	06		15,696	16,171	U
191	0305208K	Distributed Common Ground/Surface Systems	06		3,073	3,072	U
195	0903235K	Joint Service Provider (JSP)	06		2,645	3,141	U
Management Support					76,775	92,082	
197	0604532K	Joint Artificial Intelligence	07		148,447		U
205	0208045K	C4I Interoperability	07				U
209	0302019K	Defense Info Infrastructure Engineering and Integration	07		16,233	19,145	U
210	0303126K	Long-Haul Communications - DCS	07		10,275	13,195	U
211	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07		4,892	5,746	U
215	0303140K	Information Systems Security Program	07		5,707	7,005	U
216	0303150K	Global Command and Control System	07		4,150	10,020	U
217	0303153K	Defense Spectrum Organization	07		19,302	19,708	U
218	0303167K	Pre-Auction Spectrum Relocation Fund	07				U
219	0303228K	Joint Regional Security Stacks (JRSS)	07		9,342		U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

UNCLASSIFIED

Defense Information Systems Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
220	0303267K	Auctioned Spectrum Relocation Fund	07	6,858						U
222	0303667K	Citizen Broadband Radio System	07	16,501						U
235	0305172K	Combined Advanced Applications	07	12,582						U
243	0305208K	Distributed Common Ground/Surface Systems	07	2,955						U
247	0305251K	Cyberspace Operations Forces and Force Support	07							U
257	0708012K	Logistics Support Activities	07	1,654	1,690					U
260	0903235K	Joint Service Provider (JSP)	07	1,405						U
273	1203610K	Teleport Program	07	2,699						U
		Operational Systems Development		392,211	220,038					
277	0303150K	Global Command and Control System	08		32,774					U
		Software And Digital Technology Pilot Programs			32,774					
<b>Total Defense Information Systems Agency</b>				<b>424,909</b>	<b>329,587</b>					

R-123BBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Information Systems Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	-----	---	-----	-----	-----	c
220	0303267K	Auctioned Spectrum Relocation Fund	07				U
222	0303667K	Citizen Broadband Radio System	07				U
235	0305172K	Combined Advanced Applications	07				U
243	0305208K	Distributed Common Ground/Surface Systems	07				U
247	0305251K	Cyberspace Operations Forces and Force Support	07			2,497	U
257	0708012K	Logistics Support Activities	07		1,690	1,620	U
260	0903235K	Joint Service Provider (JSP)	07				U
273	1203610K	Teleport Program	07			1,270	U
		Operational Systems Development			220,038	80,206	
277	0303150K	Global Command and Control System	08		32,774	34,987	U
		Software And Digital Technology Pilot Programs			32,774	34,987	
Total Defense Information Systems Agency					329,587	207,275	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 12:26:28

**UNCLASSIFIED**

Defense Information Systems Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
183	06	0208045K	C4I Interoperability.....	Volume 5 - 169
189	06	0305172K	Combined Advanced Applications.....	Volume 5 - 177
191	06	0305208K	Distributed Common Ground/Surface Systems.....	Volume 5 - 181
195	06	0903235K	Joint Service Provider.....	Volume 5 - 185

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
197	07	0604532K	Joint Artificial Intelligence Center (JAIC).....	Volume 5 - 189
209	07	0302019K	Defense Info. Infrastructure Engineering and Integration.....	Volume 5 - 197
210	07	0303126K	Long-Haul Communications - DCS.....	Volume 5 - 223
211	07	0303131K	Minimum Essential Emergency Communications Network (MEECN).....	Volume 5 - 237
215	07	0303140K	Information Systems Security Program.....	Volume 5 - 243
216	07	0303150K	Global Command and Control System.....	Volume 5 - 253

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Information Systems Agency • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
217	07	0303153K	Defense Spectrum Organization.....	Volume 5 - 265
218	07	0303167K	Pre-Auctioned Spectrum Relocation Fund.....	Volume 5 - 277
219	07	0303228K	Joint Information Environment.....	Volume 5 - 283
224	07	0303267K	Auctioned Spectrum Relocation Fund.....	Volume 5 - 291
247	07	0305251K	Cyberspace Operations Forces and Force Support.....	Volume 5 - 297
257	07	0708012K	Logistics Support Activities.....	Volume 5 - 303
273	07	1203610K	Teleport Program.....	Volume 5 - 309

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
277	08	0303150K	Global Command and Control System Software and Digital Technology Pilot Programs	Volume 5 - 321

**UNCLASSIFIED**



**UNCLASSIFIED**

Defense Information Systems Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Auctioned Spectrum Relocation Fund	0303267K	224	07.....	Volume 5 - 291
C4I Interoperability	0208045K	183	06.....	Volume 5 - 169
Combined Advanced Applications	0305172K	189	06.....	Volume 5 - 177
Cyberspace Operations Forces and Force Support	0305251K	247	07.....	Volume 5 - 297
Defense Info. Infrastructure Engineering and Integration	0302019K	209	07.....	Volume 5 - 197
Defense Spectrum Organization	0303153K	217	07.....	Volume 5 - 265
Distributed Common Ground/Surface Systems	0305208K	191	06.....	Volume 5 - 181
Global Command and Control System	0303150K	216	07.....	Volume 5 - 253
Global Command and Control System Software and Digital Technology Pilot Programs	0303150K	277	08.....	Volume 5 - 321
Information Systems Security Program	0303140K	215	07.....	Volume 5 - 243
Joint Artificial Intelligence Center (JAIC)	0604532K	197	07.....	Volume 5 - 189
Joint Information Environment	0303228K	219	07.....	Volume 5 - 283
Joint Service Provider	0903235K	195	06.....	Volume 5 - 185
Logistics Support Activities	0708012K	257	07.....	Volume 5 - 303
Long-Haul Communications - DCS	0303126K	210	07.....	Volume 5 - 223
Minimum Essential Emergency Communications Network (MEECN)	0303131K	211	07.....	Volume 5 - 237

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Information Systems Agency • Budget Estimates FY 2023 • RDT&E Program

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Pre-Auctioned Spectrum Relocation Fund	0303167K	218	07.....	Volume 5 - 277
Teleport Program	1203610K	273	07.....	Volume 5 - 309

**UNCLASSIFIED**

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / <i>C4I Interoperability</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	21.516	55.361	69.698	-	69.698	65.150	64.926	74.439	77.143	Continuing	Continuing
T-30: <i>MRTFB Test and Evaluation</i>	0.000	21.516	1.790	2.154	-	2.154	2.159	2.140	2.139	2.184	Continuing	Continuing
T-40: <i>Major Range Test Facility Base Operations</i>	0.000	0.000	53.571	67.544	-	67.544	62.991	62.786	72.300	74.959	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Information Systems Agency's Joint Interoperability Test Command (JITC) serves as the only joint element of the Department of Defense's (DoD's) Major Range and Test Facility Base (MRTFB) that is operated primarily for Information Technology and National Security Systems (IT/NSS) Test and Evaluation (T&E) support missions. JITC executes the T&E mission in support of Command, Control, Communications, Computers and Intelligence (C4I), and is the DoD's Sole Interoperability Certifier and the only Non-Service Operational Test Agency.

With a focus on T&E for IT, JITC has the unique mission to provide consistent, structured, and effective T&E services that include converged information environment, Cyber, Cloud services, Mobility and NSS. JITC also has the responsibility for ensuring Joint/Coalition interoperability; issuing interoperability certifications; conducting operational evaluations; maintaining a federated IT infrastructure as a MRTFB activity and providing direct interoperability support to the warfighter by ensuring Joint warfighting capabilities are interoperable and support mission needs.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	21.516	55.361	0.000	-	0.000
Current President's Budget	21.516	55.361	69.698	-	69.698
Total Adjustments	0.000	0.000	69.698	-	69.698
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	69.698	-	69.698

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

**Appropriation/Budget Activity**  
0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6:  
*RDT&E Management Support*

**R-1 Program Element (Number/Name)**  
PE 0208045K / *C4I Interoperability*

The increase of \$14.337 in FY 2023 supports facility improvements at Ft. Huachuca, AZ and modernization of test infrastructure .

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T-30 / MRTFB Test and Evaluation
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
T-30: MRTFB Test and Evaluation	0.000	21.516	1.790	2.154	-	2.154	2.159	2.140	2.139	2.184	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Defense Information Systems Agency (DISA), through the Joint Interoperability Test Command (JITC), manages the Department’s Interoperability Test, Evaluation, and Certification process that is structured to provide meaningful and independent test results in order to increase stakeholder confidence. The objectives, of the Test and Evaluation (T&E) activities, are to validate that DISA’s (and the Department’s, where appropriate) deliverables have met operational requirements. The T&E activities target evaluation strategies in the design, development, operational, integration and/or sustainment aspects of every program requiring support. DISA’s T&E efforts span a variety of test categories supporting DISA’s delivery of Department-wide enterprise solutions as well as Service, Agency, and mission partner developmental, operational, Information Assurance, and interoperability testing, validation and certification efforts. These efforts are focused on T&E for Information Technology (IT) that includes the Joint Information Environment (JIE), Cyber, Cloud services, and Mobility.

As the Department of Defense (DoD) Joint Interoperability Certification Authority, JITC annually:

- Issues hundreds of interoperability testing and certification related products.
- Manages the scheduling and executes multiple annual distributed Joint Tactical Data Link hardware in the loop interoperability test events. These events are designed to evaluate, certify and re-certify Service/Agency Tactical Data systems.
- Reviews hundreds of Joint Capabilities Integration and Development System documents, interoperability support plans and Legacy Waiver requests on behalf of the DoD Chief Information Officer (CIO) and the Joint Staff.
- Serves as executive agent to DoD Interoperability Steering Group, in support of the DoD CIO, and uses this forum to coordinate policy, adjudicate issues, and to process Interim Certificates to Operate.
- Ensures interoperability test and certification standard practices and procedures are in accordance with DoD policy, and reviews and issues over 600 Joint interoperability certifications annually for DoD’s Information Technology and National Security Systems (IT/NSS).
- Manages the scheduling and prioritization of multiple annual distributed Joint Tactical Data Link simulated test events using real components (hardware in the loop interoperability test events) designed to evaluate, certify and re-certify Service/Agency Tactical systems.

JITC provides interoperability test support to Joint, Coalition and Allied operations in theater by providing Interoperability test support within the area of responsibility and supports exercises intended to evaluate Joint, Coalition and Allied operations in, or planning to deploy to theater by:

- Providing on-demand rapid response contingency support to Regional Combatant Commands (COCOMs) as required, and conducting assessments of interoperability exercises.
- Conducting assessments during one of the largest interoperability exercises (the Endeavors).
- Broadening its support to the Joint Staff and functional COCOMs with a multitude of interoperability assessment services.
- Maintaining a 24x7 Warfighter Command, Control, Communications, Computers and Intelligence (C4I) Interoperability Hotline that connects warfighters to subject matter experts to resolve IT interoperability challenges.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / <i>C4I Interoperability</i>	<b>Project (Number/Name)</b> T-30 / <i>MRTFB Test and Evaluation</i>
--	---	---

- Establishing the framework for the conduct of annual independent evaluations and the status of interoperability through DoD Interoperability Communications Exercises (DICE).
- Emulating a distributed Joint Task Force network, providing realism and operational significance during the assessments and evaluations of data integrity, interfacing and responsiveness coupled with efficient configuration tactics, techniques, and procedures.
- Including first responder local and federal communications as part of the task force.

As the only non-Service Operational Test Agency (OTA) within DoD, JITC conducts operational testing of IT/NSS under realistic conditions to determine the operational effectiveness, suitability, interoperability, and security; and independently assesses the operational impact of system issues on mission accomplishment. JITC is the OTA for DISA-managed programs, and also upon request serves as the OTA for other Agencies such as the Defense Logistics Agency, Department of Homeland Security, and the National Security Agency.

JITC designs Operational Test and Evaluation (OT&E) events to determine if IT/NSS meet user requirements, offering sustaining support services to users to assist Acquisition Program Managers with meeting their overall milestone objectives.

JITC focuses its efforts towards core T&E improvements, better T&E policy for IT/NSS and designing new test methodologies to better assess Enterprise Service systems, aligning with the Information Technology Service Management model evaluating fulfillment services for suitability.

The T&E project supports the strategy development and investment plans in support of maintaining, improving and operating the DISA Major Range and Test Facility Base (MRTFB). Specific goals for DISA's MRTFB each year are to:

- Integrate evolving technologies that are able to leverage efficiencies such as virtualization, enterprise elements such as Infrastructure as a Service and Platform as a Service, and the foundational Cyber assets mandated by the JIE.
- Expand test infrastructure and operations to allow for rapid, on-demand provisioning, and federation across the DoD and Cyber integration with enterprise environments.
- Design consistent, repeatable test methodologies that ensure efficient T&E on changing or emerging technologies.
- Provide T&E guidance/oversight to nearly 130 DISA programs, creating synergy and efficiencies across the large DISA IT portfolio, gaining insight in new technologies and commercial best practices.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> DoD's Joint Interoperability Certification Authority</p> <p><b>Description:</b> Plans and executes interoperability certifications for Department of Defense's (DoD) Information Technology and National Security Systems (IT/NSS) by evaluating joint military operations, conformance to standards, and participating in developmental testing or executing purposefully planned Interoperability Test Events.</p> <p><b>FY 2022 Plans:</b></p>	0.000	0.873	1.074

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T-30 / MRTFB Test and Evaluation
--	--	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

<p>Will evolve customer accessibility through enhanced T&amp;E capabilities by employing automation technologies to include cloud and DevSecOps testing services. Continue to reduce risk and identify/analyze trends by employing new technology and methodology to conduct data analysis in the operational environment.</p> <p><b>FY 2023 Plans:</b> Continue to evolve customer accessibility through enhanced T&amp;E capabilities by employing automation technologies for cloud testing services and to expand cybersecurity survivability testing services. Continue to reduce risk and identify/analyze trends by employing new technology and methodology to conduct data analysis in the operational environment.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.201 from FY 2022 to FY 2023 supports improvements in test methodology and data analysis techniques.</p>			
--	--	--	--

<b>Title:</b> Operational Test and Evaluation	0.370	0.846	0.999
---	-------	-------	-------

<p><b>Description:</b> Conduct operational testing of IT/NSS under realistic operational conditions to determine the operational effectiveness, suitability, interoperability, and security of a particular system. Independently assesses the operational impact of system issues on mission accomplishment.</p> <p><b>FY 2022 Plans:</b> Will enhance OT&amp;E processes, procedures, and tools by increasing automation and utilizing virtualization as needed, to better evaluate performance and to improve operational testing capabilities for evolving requirements. Provide OT&amp;E support to COCOMs, Military Services, and Defense Agencies as requested.</p> <p><b>FY 2023 Plans:</b> Continue to enhance OT&amp;E processes, procedures, and tools by increasing automation and utilizing virtualization as needed, to better evaluate performance and to improve operational testing capabilities for evolving requirements. Provide OT&amp;E support to COCOMs, Military Services, and Defense Agencies as requested.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.153 from FY 2022 to FY 2023 supports improvements in use of automation technologies.</p>			
---	--	--	--

<b>Title:</b> Support to Warfighter	21.146	0.071	0.081
-------------------------------------	--------	-------	-------

<p><b>Description:</b> Provides pre/post-production evaluations including: collecting relevant data during a continuous monitoring effort, and providing on-the-spot evaluations of problem areas and viable mission-oriented solutions to warfighting COCOMs during exercises and contingency operations.</p> <p><b>FY 2022 Plans:</b></p>			
---	--	--	--

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T-30 / MRTFB Test and Evaluation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Support will focus primarily on the Geographic Combatant Commands and their regional partners consistent with the National Defense Strategy. Will sustain a Warfighter Support capability sufficient to respond to critical fielded system interoperability issues.			
<b><i>FY 2023 Plans:</i></b> Continue to focus primarily on the Geographic Combatant Commands and their regional partners consistent with the National Defense Strategy. Will sustain a Warfighter Support capability sufficient to respond to critical fielded system interoperability issues.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase of \$0.010 from FY 2022 to FY 2023 is due to normal economic cost growth adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	21.516	1.790	2.154

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Test, Evaluation, and Certification (TEC) indefinite delivery/indefinite quantity contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions. The TEC contract provides for expansion and contraction of staff years as workload dictates. An additional contract is a Federal Preferential Sole Source Procurement set-aside which provides consolidated facilities support.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability				<b>Project (Number/Name)</b> T-40 / Major Range Test Facility Base Operations			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T-40: Major Range Test Facility Base Operations	0.000	0.000	53.571	67.544	-	67.544	62.991	62.786	72.300	74.959	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

As the only non-Service activity of the Department of Defense (DoD) Major Range and Test Facility Base (MRTFB), Defense Information Systems Agency (DISA) provides the only dedicated Information Technology (IT) environment investing in a single end-to-end infrastructure for testing the Enterprise Edge to the Tactical Edge. As an MRTFB, Joint Interoperability Test Command (JITC) provides tested IT infrastructure products to the DoD, Federal/non-Federal Government, Commercial vendors, and Allied partners.

The DISA MRTFB infrastructure:

- Encompasses two geographic locations (Ft. Huachuca, AZ; Ft. Meade, MD).
- 116K square feet of raised floor space comprised of multiple test environments and test networks supporting over 100 programs on an annual basis.
- Complies with multiple levels of security and is scaled to support approximately 1,000 annual testing events to evaluate the DoD's converged information environment, Cyber, Cloud services, Mobility, and National Security Systems (NSS).
- Encompasses a significant portfolio of reference implementations, test tools, and supporting IT systems to aid both test execution and data collection/analysis.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> MRTFB Improvements and Operations	0.000	53.571	67.544
<p><b>Description:</b> Information Technology and National Security Systems (IT/NSS), Command and Control (C2), Defense reform initiatives, and the Department of Defense's (DoD's) migration towards more agile development and acquisition of IT capabilities by providing Test and Evaluation (T&amp;E) support, including infrastructure, testing capabilities and events, policies and processes to Regional Combatant Commands (COCOMS), Military Services, DoD Agencies, other Federal Government agencies, private industry, Coalition partners and allies.</p> <p><b>FY 2022 Plans:</b> As an MRTFB, JITC will operate the DISA IT Test infrastructure standardized test bed at Fort George G. Meade, MD and Fort Huachuca, AZ. JITC will support the Agency and the Department with the use of cloud technologies to provide seamless distributed testing services and efficient use of testing equipment and resources. JITC maintain technical workforce, support base operations, communications, and operating expenses at each location.</p> <p><b>FY 2023 Plans:</b> As an MRTFB, JITC will operate the DISA IT Test infrastructure standardized test bed at Fort George G. Meade, MD and Fort Huachuca, AZ. JITC will support the Agency and the Department with the use of cloud technologies to provide seamless</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T-40 / Major Range Test Facility Base Operations

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
distributed testing services and expand/modernize test automation and equipment. JITC maintain technical workforce, support base operations, communications, and operating expenses at each location.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase of \$13.973 in FY 2022 to FY 2023 is attributed to facility projects at Ft. Huachuca, AZ in preparation for JITC MILCON pay adjustment and expansion/modernization of test automation and equipment.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	53.571	67.544

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Test, Evaluation, and Certification (TEC) indefinite delivery/indefinite quantity contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions. The TEC contract provides for expansion and contraction of staff years as workload dictates. An additional contract is a Federal Preferential Sole Source Procurement set-aside which provides consolidated facilities support.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305172K I <i>Combined Advanced Applications</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	109.228	7.462	15.696	16.171	-	16.171	5.792	6.035	6.208	6.336	Continuing	Continuing
CA1: <i>Combined Advanced Applications</i>	99.228	7.462	5.696	16.171	-	16.171	5.792	6.035	6.208	6.336	Continuing	Continuing
FM1: <i>Financial Management Systems</i>	10.000	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Combined Advanced Applications is classified and exhibit will be provided under a separate cover.

Financial Management Systems will acquire support for the modernization of the financial account management information system capability. The new procurement will use a single step to full capability approach and execute in accordance with the Component Acquisition Executive (CAE) Guideline for Projects. This Acquisition Strategy provides the business and technical management approach to achieve program objectives within resource constraints. The financial business area is currently supported by multiple legacy systems operating on platforms with associated performance issues such as high cost, technology support issues, unsupportable interoperability, and high risk of failure. In addition, various federal financial management and Department of Defense requirements (e.g., Business Enterprise Architecture (BEA)); the Treasury Department's Invoice Processing Platform).

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	7.462	15.696	0.000	-	0.000
Current President's Budget	7.462	15.696	16.171	-	16.171
Total Adjustments	0.000	0.000	16.171	-	16.171
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	16.171	-	16.171

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

This program is Classified and exhibit will be provided under a separate cover.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0305172K / <i>Combined Advanced Applications</i>	<b>Project (Number/Name)</b> CA1 / <i>Combined Advanced Applications</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>CA1: Combined Advanced Applications</i>	99.228	7.462	5.696	16.171	-	16.171	5.792	6.035	6.208	6.336	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Program is classified and exhibit will be provided under a separate cover.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Combined Advanced Applications	7.462	5.696	16.171
<b>Description:</b> Classified.			
<b>FY 2022 Plans:</b> Classified.			
<b>FY 2023 Plans:</b> Classified.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.462	5.696	16.171

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Classified

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0305172K / <i>Combined Advanced Applications</i>	<b>Project (Number/Name)</b> FM1 / <i>Financial Management Systems</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
FM1: <i>Financial Management Systems</i>	10.000	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Program is classified and exhibit will be provided under a separate cover.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Financial Management Systems - Test and Development	-	10.000	0.000
<b>Description:</b> Classified.			
<b>FY 2022 Plans:</b> Classified.			
<b>FY 2023 Plans:</b> Classified.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	10.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6:</i> <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	3.112	3.073	3.072	-	3.072	3.132	3.194	3.193	3.258	Continuing	Continuing
NF1: <i>Distributed Common Ground/Surface Systems</i>	0.000	3.112	3.073	3.072	-	3.072	3.132	3.194	3.193	3.258	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

As the sole joint interoperability certification agent, the Joint Interoperability Test Command (JITC) provides Test and Evaluation (T&E) services to the Distributed Common Ground/Surface Systems (DCGS) Family of Systems (FoS). The DCGS FoS is the major component of the Defense Intelligence Information Enterprise (DI2E) which is modernizing operations to a single, unified Common Data Fabric (CDF) or centralized data management strategy, from the legacy DCGS Integration Backbone (DIB) federation. The CDF provides Enterprise Intelligence, Surveillance, and Reconnaissance (ISR) data to consuming machines and applications throughout the DI2E and is a critical component of the Defense Intelligence Digital Transformation implementation. This effort includes T&E of DI2E modernization initiatives integrated to advance the transformation of the entire enterprise from a collection of component-unique systems to an integrated Global ISR Enterprise for joint operations.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	3.112	3.073	0.000	-	0.000
Current President's Budget	3.112	3.073	3.072	-	3.072
Total Adjustments	0.000	0.000	3.072	-	3.072
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	3.072	-	3.072

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. The decrease of -\$0.001 in FY 2023 is due to a technical adjustment.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>				<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NF1: <i>Distributed Common Ground/Surface Systems</i>	0.000	3.112	3.073	3.072	-	3.072	3.132	3.194	3.193	3.258	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

JITC coordinates with the Military Services and Defense Intelligence Agencies to conduct DCGS FoS testing and analysis, including event coordination, configuration, and instrumentation through the Enterprise Integration and Test Capability (EITC). Under the guidance of the Office of the Under Secretary of Defense for Intelligence and Security (OUSD(I&S)), this effort, referred to as the DCGS Test and Evaluation Focus Team (T&E FT), is composed of three parts: the EITC Focus Group, providing and sustaining enterprise-level T&E requirements analysis, instrumentation, and automation; the Strategy Focus Group, evaluating current and future net-enabled enterprise T&E methods and capabilities; and the Execution Focus Group, which leverages the other groups' methodologies and tools in executing DCGS Enterprise assessment events, such as ENTERPRISE STORM (ES), the premier Defense Intelligence Enterprise demonstration series to promote interoperability and integration between the Military Services, Defense Intelligence Agencies, Five Eye Allies (FVEY) and Select Coalition Partners. These efforts improve systems engineering and T&E throughout all phases of the DCGS life-cycle, resulting in improved capabilities to share net-centric data and services among and between components of the DCGS FoS, the overarching DI2E, and Joint All-Domain Command and Control (JADC2) capabilities.

The T&E FT engineers and operates the EITC, instrumenting and evaluating DI2E compliance with enterprise Service DCGS Net-Ready Key Performance Parameter elements, and joint needs. Develops testing concepts and strategies to determine compliance with emergent Global ISR Enterprise attributes, and applicable joint interoperability standards in operational or operationally representative environments. Provides a forum to advocate, coordinate, and synchronize use of existing Department of Defense and Service Test Facilities such as those available through the Test Resource Management Center to advance science, technology, modeling, and simulation technologies to improve Global ISR Enterprise test capabilities, capacity, and integration.

The T&E FT supports ES demonstrations and evaluation of capabilities relying on the Defense Intelligence Agency's CDF, the Joint Worldwide Intelligence Communications System, and the Battlefield Information Collection and Exploitation System to characterize the state of DI2E operations, ISR programs, and partner interoperability as they incorporate multi-domain Continuous Integration / Continuous Delivery (CI/CD) DevSecOps pipelines. Assesses capabilities that can effectively transition to operations within 6-12 months. Supports DCGS Enterprise-wide acquisitions that implement digital modernization strategies and evaluate DI2E integration with JADC2 initiatives.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Distributed Common Ground/Surface Systems (DCGS)	3.112	3.073	3.072
<b>Description:</b> The T&E FT supports ES demonstrations and evaluation of capabilities relying on the Defense Intelligence Agency's CDF, the Joint Worldwide Intelligence Communications System, the Secret Internet Protocol Router Network, and the Battlefield Information Collection and Exploitation System to characterize the state of DI2E operations, ISR programs, and partner			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>interoperability as they incorporate multi-domain Continuous Integration / Continuous Delivery (CI/CD) DevSecOps pipelines into operational networks. The T&amp;E FT engineers and operates the EITC, instrumenting and evaluating DI2E compliance with enterprise Service DCGS Net-Ready Key Performance Parameter elements, and joint needs. Develops testing concepts and strategies to determine compliance with emergent Global ISR Enterprise attributes, and applicable joint interoperability standards in operational or operationally representative environments. Supports DCGS Enterprise-wide acquisitions that implement digital modernization strategies and evaluate DI2E integration with JADC2 initiatives. Provides a forum to advocate, coordinate, and synchronize use of existing Department of Defense and Service Test Facilities such as those available through the Test Resource Management Center to advance science, technology, modeling, and simulation technologies to improve Global ISR Enterprise test capabilities, capacity, and integration.</p> <p><b>FY 2022 Plans:</b> Will revise and evolve T&amp;E data collection techniques and analysis strategies in support of DCGS Enterprise community members acquisition programs as they integrate capabilities and services solutions to address the operational gaps identified in OUSD(I&amp;S) sponsored DCGS Enterprise Capabilities Based Assessment and other approved requirements. Continue to plan, develop, and execute enterprise-level data collection during multiple yearly test events and demonstration cycles. Support establishing the EITC to provide enhanced functionality, expand and modernize T&amp;E capacity, and perform automated evaluations of net-centric capabilities with improved assessment methodologies and practices by incorporating new technologies. Continue enhancement of instrumentation and automated data collection tools to support testing on multiple network domains and enclaves where the DCGS FoSs, Defense Intelligence Agencies, FVEY and Select Coalition Partners operate. Continue to develop T&amp;E methodology and tools to support testing of enterprise cybersecurity solutions to determine if they comply with standards, support interoperability between the DCGS FoSs, and meet the DCGS Enterprise cybersecurity requirements. Continue to conduct compliance testing of data, metadata, and web services against established standards to enhance the sharing and promote reuse of net centric solutions. Continuing to expand distributed and automated testing capabilities that enable DCGS entities and other communities of interest to test for standards compliance during the development and acquisition processes. All data collected by these assessment efforts are reflected in an annual DCGS Enterprise Assessment Report that delineates how well the DCGS Enterprise shows progress over time in meeting the capabilities and closing gaps reflected in the 2016 DCGS Enterprise Initial Capabilities Document (ICD), and advance National and Intelligence Defense Strategies, and recurring ES guidance memoranda.</p> <p><b>FY 2023 Plans:</b> Will revise and evolve T&amp;E data collection techniques and analysis strategies in support of DCGS Enterprise community members acquisition programs' interoperability as they integrate capabilities and solutions to address operational gaps identified in OUSD(I&amp;S) sponsored DCGS Enterprise Capabilities Based Assessment and other approved and emergent requirements. Continue to plan, develop, and execute enterprise-level data collection during multiple, Service and Defense Intelligence Agency led, yearly test events and demonstration cycles. Support establishing the EITC to provide enhanced functionality, expand and</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>modernize T&amp;E capacity, and perform automated evaluations of net-centric capabilities with improved assessment methodologies and practices due new technology integration and software development practices. Continue to conduct compliance testing of data, metadata, and services against applicable standards that enhance data sharing and promote reuse of net-centric solutions. Continue to develop T&amp;E methodology and tools to support the evaluation of enterprise cybersecurity solutions and determine DCGS Enterprise standards compliance, interoperability, and efficiencies of cybersecurity reciprocity and automated policy agreements. Continue enhancement of instrumentation and automated, distributed data collection tools to support testing on multiple network domains, cloud environments, and enclaves where the DCGS FoSs, Defense Intelligence Agencies, FVEY and Select Coalition Partners operate to evaluate interoperability, as these entities incorporate multi-domain CI/CD DevSecOps pipelines and accelerated acquisition timelines. Data collected by these assessment efforts advance planning, budgeting, and management of DCGS Enterprise capability investments that implement National and Intelligence Defense Strategies, and recurring ES guidance memoranda</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease of -\$0.001 from FY 2022 to FY 2023 is due to non-fuel technical adjustment.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	3.112	3.073	3.072

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Test, Evaluation, and Certification (TEC) indefinite delivery/indefinite quantity contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions. The TEC contract provides for expansion and contraction of staff years as workload dictates. An additional contract is a Federal Preferential Sole Source Procurement set-aside which provides consolidated facilities support.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0903235K / <i>Joint Service Provider</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	12.283	0.608	2.645	3.141	-	3.141	5.177	5.157	5.199	5.259	Continuing	Continuing
JSP: <i>Joint Service Provider</i>	12.283	0.608	2.645	3.141	-	3.141	5.177	5.157	5.199	5.259	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Joint Service Provider (JSP) provides Information Technology (IT) infrastructure and office automation systems, components, supporting software, and IT support services for the Office of the Secretary of Defense (OSD), Joint Staff, Headquarters Department of the Army (HQDA), Washington Headquarters Services (WHS), Pentagon Force Protection Agency (PFPA), DoD Consolidated Adjudication Facility (DoD CAF), and other JSP-supported 4th Estate users and communities supported within the Pentagon Reservation and other areas in the National Capitol Region (NCR). RDT&E provides for the test, pilot, and development of new integrated business tools to enhance the JSP business processes and improve the delivery of IT services and capabilities. This activity executes JSP's testing environment to allow insertion of commercial off-the-shelf and government-managed software for all supported JSP services to include network transport, storage, compute, defensive cyber operations, Pentagon Installation Processing Node (IPN), and other components of the NCR's core network infrastructure. These efforts also provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.608	2.645	0.000	-	0.000
Current President's Budget	0.608	2.645	3.141	-	3.141
Total Adjustments	0.000	0.000	3.141	-	3.141
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	3.141	-	3.141

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. The increase of \$0.496 in FY 2023 is due to increase in technical contract support.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0903235K / Joint Service Provider				<b>Project (Number/Name)</b> JSP / Joint Service Provider			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
JSP: Joint Service Provider	12.283	0.608	2.645	3.141	-	3.141	5.177	5.157	5.199	5.259	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Joint Service Provider (JSP) provides mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> SECDEF Communications</p> <p><b>Description:</b> Provides mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.</p> <p><b>FY 2022 Plans:</b> Continue to provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.</p> <p><b>FY 2023 Plans:</b> Continue to provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.004 from FY 2022 to FY 2023 is attributed to an increase to technical contract support.</p>	0.104	0.108	0.112
<p><b>Title:</b> Enterprise Initiative Test &amp; Development</p> <p><b>Description:</b> This activity executes JSP's testing environment to allow insertion of commercial off the shelf and government managed software for all supported JSP services to include network transport, storage, compute, defensive cyber operations, Pentagon Installation Processing Node (IPN), and other components of the NCR's core network infrastructure. This effort allows informed investment in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operational needs required by the JSP supported user base and prioritize developing capabilities enabling a more resilient and survivable Department of Defense Information Network (DODIN) in the face of a dynamic and increasingly sophisticated threat environment.</p>	0.504	2.537	3.029

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0903235K / <i>Joint Service Provider</i>	<b>Project (Number/Name)</b> JSP / <i>Joint Service Provider</i>
--	---	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
<p><b><i>FY 2022 Plans:</i></b> Develop, pilot, and test integrated capabilities and solutions to support the operational requirements of the JSP user base. Supports such efforts as adaptive security architecture, threat intelligence machine learning, runtime application self-protection and Desktop as a Service. Improve delivery of IT services and capabilities of an increasingly mobile, application centric knowledge workforce JSP supports in a dynamic environment with advanced persistent cyber threats targeting DoD information networks (DODIN).</p> <p><b><i>FY 2023 Plans:</i></b> Continue to develop, pilot, and test integrated capabilities and solutions to support the operational requirements of the JSP user base. Supports such efforts as adaptive security architecture, threat intelligence machine learning, runtime application self protection and Desktop as a Service. Improve delivery of IT services and capabilities of an increasingly mobile, application centric knowledge workforce JSP supports in a dynamic environment with advanced persistent cyber threats targeting DoD information networks (DODIN).</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase of \$0.492 from FY 2022 to FY 2023 is attributed to an increase to technical contract support.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.608	2.645	3.141

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	183.834	128.239	148.447	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
JA1: <i>Joint Artificial Intelligence Center (JAIC)</i>	183.834	128.239	148.447	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The JAIC was established to preserve and expand our military advantage in support of the Department’s 2018 National Defense Strategy (NDS). As a primarily executing body it will accelerate the delivery of Artificial Intelligence (AI) enabled capabilities, scale the Department-wide impact of AI, and synchronize Department of Defense (DoD) AI activities to expand Joint Force advantages. The JAIC mission is to accelerate the delivery of AI to achieve impact scaled across the DoD at relevant speed to transform the DoD and ensure the nation maintains a competitive advantage. JAIC capitalizes on Project Maven’s efforts as the pathfinder AI initiative for the DoD to further critical AI architecture and prototyping to rapidly expand AI to other mission areas. As JAIC efforts prove relevant, they will expedite technology transition from the laboratory to operational use, and increase Joint Force capability. Most military data storage, utilization, and analytic tools and systems were designed pre-AI and require specialized integration to enable the insertion of algorithms into their software baseline. JAIC capabilities are commercial technology initiatives that insert commercial AI into existing programs of record.

The JAIC will execute an initial sequence of cross-functional use cases to demonstrate value and create momentum, called National Mission Initiatives (NMI). NMIs will rapidly develop and deploy AI across the Joint Force for selected high-priority, pressing operational or business reform challenges. Additionally, JAIC will work closely with individual components to help identify, shape, and accelerate component-specific AI deployments. NMI efforts will include selecting commercial and academic partners for prototypes, and develop standardized processes with respect to data, testing and evaluation, and cybersecurity. JAIC will use lessons learned from these initial projects to establish new processes and standards that will be repeatable across additional projects and immediately relevant to the Joint Force. This will be done in collaboration with partners across technology companies, consulting firms, academia, government labs, Federally Funded Research and Development Centers (FFRDC), services, and international partners.

To support NDS, the JAIC will catalyze and develop AI capabilities to enhance readiness and lethality and ensure DoD maintains an advantage over adversaries. JAIC will spearhead this unique opportunity to expand the competitive space across all domains with AI. JAIC efforts will directly contribute to increased military readiness towards a more lethal Joint Force, it will strengthen alliances and attract new partners by focusing on global problems, and it will enable Departmental reform to increase performance and affordability. JAIC will cultivate workforce talent by recruiting, developing, and retaining high-quality personnel to enable the development and delivery of AI. This will bring critical skills into the department by drawing outside expertise, and leveraging small companies, start-ups, and universities. Implementing AI at a speed of relevance hinges on the ability to integrate AI better than our adversaries, and the JAIC will enable the Department to adapt AI into how it fights. JAIC will focus on speed of delivery, continuous adaptation, and frequent capability delivery sprints. To fully realize this potential, the JAIC will pioneer AI approaches across the full scale of the global enterprise in a manner that is jointly interoperable with allies, partners, military Services, and agencies. Specifically, JAIC will identify and implement new organizational approaches, establish key AI building blocks and standards, develop and attract AI talent, and introduce new operational models that will enable DoD to systematically take advantage of AI at enterprise scale. The JAIC will fulfill the National Security Strategy and NDS to ensure conventional overmatch through dual-use commercial technology and partnered DoD-developed AI. The JAIC will collaborate with non-governmental organizations, corporations, strategic influencers,

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>
---	--

and partners and allies. JAIC will seize the initiative to lead the world in the development and adoption of transformative defense AI solutions that are safe, ethical, and secure. JAIC will spearhead this effort, engaging with the best minds in government, the private sector, academia, and international community.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	128.239	10.033	0.000	-	0.000
Current President's Budget	128.239	148.447	0.000	-	0.000
Total Adjustments	0.000	138.414	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Budget Year Adjustment	0.000	138.414	0.000	-	0.000

**Change Summary Explanation**

The decrease from FY 2022 to FY 2023 is due to The JAIC transition to the office of the Chief Digital and Artificial Intelligence Officer (CDAO).



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>			<b>Project (Number/Name)</b> JA1 / <i>Joint Artificial Intelligence Center (JAIC)</i>				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
JA1: <i>Joint Artificial Intelligence Center (JAIC)</i>	183.834	128.239	148.447	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The JAIC was established to preserve and expand our military advantage in support of the Department’s 2018 National Defense Strategy. As a primarily executing body it will accelerate the delivery of Artificial Intelligence (AI) enabled capabilities, scale the Department-wide impact of AI, and synchronize DoD AI activities to expand Joint Force advantages. The JAIC mission is to accelerate the delivery of AI to achieve impact scaled across the DoD at relevant speed to transform the DoD and ensure the nation maintains a competitive advantage. JAIC capitalizes on Project Maven’s efforts as the pathfinder AI initiative for the DoD to further critical AI architecture and prototyping to rapidly expand AI to other mission areas. As JAIC efforts prove relevant, they will expedite technology transition from the laboratory to operational use, and increase Joint Force capability. Most military data storage, utilization, and analytic tools and systems were designed pre-AI and require specialized integration to enable the insertion of algorithms into their software baseline. JAIC capabilities are commercial technology initiatives that insert commercial AI into existing programs of record.

The JAIC will execute an initial sequence of cross-functional use cases to demonstrate value and create momentum, called National Mission Initiatives (NMI). NMIs will rapidly develop and deploy AI across the Joint Force for selected high-priority, pressing operational or business reform challenges. Additionally, JAIC will work closely with individual components to help identify, shape, and accelerate component-specific AI deployments. NMI efforts will include selecting commercial and academic partners for prototypes, and develop standardized processes with respect to data, testing and evaluation, and cybersecurity. JAIC will use lessons learned from these initial projects to establish new processes and standards that will be repeatable across additional projects and immediately relevant to the Joint Force. This will be done in collaboration with partners across technology companies, consulting firms, academia, government labs, Federally Funded Research and Development Centers (FFRDC), services, and international partners.

To support the National Defense Strategy (NDS), the JAIC will catalyze and develop AI capabilities to enhance readiness and lethality and ensure DoD maintains an advantage over adversaries. JAIC will spearhead this unique opportunity to expand the competitive space across all domains with AI. JAIC efforts will directly contribute to increased military readiness towards a more lethal Joint Force, it will strengthen alliances and attract new partners by focusing on global problems, and it will enable Departmental reform to increase performance and affordability. JAIC will cultivate workforce talent by recruiting, developing, and retaining high-quality personnel to enable the development and delivery of AI. This will bring critical skills into the department by drawing outside expertise, and leveraging small companies, start-ups, and universities. Implementing AI at a speed of relevance hinges on the ability to integrate AI better than our adversaries, and the JAIC will enable the Department to adapt AI into how it fights. JAIC will focus on speed of delivery, continuous adaptation, and frequent capability delivery sprints. To fully realize this potential, the JAIC will pioneer AI approaches across the full scale of the global enterprise in a manner that is jointly interoperable with allies, partners, military Services, and agencies. Specifically, JAIC will identify and implement new organizational approaches, establish key AI building blocks and standards, develop and attract AI talent, and introduce new operational models that will enable DoD to systematically take advantage of AI at enterprise scale. The JAIC will fulfill the National Security Strategy and NDS to ensure conventional overmatch through dual-use commercial technology and partnered DoD-developed AI. The JAIC will collaborate with non-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>	<b>Project (Number/Name)</b> JA1 / <i>Joint Artificial Intelligence Center (JAIC)</i>
--	--	--

governmental organizations, corporations, strategic influencers, and partners and allies. JAIC will seize the initiative to lead the world in the development and adoption of transformative defense AI solutions that are safe, ethical, and secure. JAIC will spearhead this effort, engaging with the best minds in government, the private sector, academia, and international community.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Joint Artificial Intelligence Center (JAIC)</p> <p><b>Description:</b> JAIC develops, tests, prototypes and demonstrates innovative AI, Machine Learning (ML), data infrastructure, and model/algorithm test and assessment capabilities to integrate AI capabilities across numerous domains and technical areas including maintenance and supply chain, personnel recovery, infrastructure assessment, geospatial monitoring during disaster, and cyber sense making. JAIC develops and evaluates integrated prototype technologies in realistic operating environments with DoD entities to assess the performance or cost reduction potential of applying such advanced technology to scale across multiple services. JAIC does this by aligning rapid prototype projects under NMIs and leverages existing commercial technology for DoD use, built upon a common architecture that enables the DoD to rapidly scale AI capability.</p> <p><b>FY 2022 Plans:</b>                      In FY22, Joint Information Warfare formally Cyber Sensemaking/ JAIC will further support integration of AI/ML MISO solutions for effective understanding, messaging, and influencing within the changing information environment. The JAIC will also align resources to kick off new AI capability lines of effort in accordance with the direction of the DOD AI Executive Steering Group (ESG). The JAIC will continue development of AI/ML products ANMVIS, BlueVector, MADHAT, Cyber Data Framework, Analytic Support Officers (ASO) Ecosystem Concept, and Medifor.                      The Threat Reduction and Protection formally the Humanitarian Assistance/Disaster Relief (HA/DR) will continue efforts building AI Capability in the areas of Damage Assessment, Full Motion Video, and Search and Rescue and continue development of Damage Assessment and Road Obstruction Product Line. JAIC will continue development efforts and work towards a Joint Common Foundation (JCF) Enterprise Environment and Full Operating Capability (FOC) by FY22.                      In FY22, the Joint Warfighting Operations Initiative will continue to develop and begin to transition AI/ML products lines Target Development, Wargaming, Gargoyle, Precision Targeting, and The Assistant Secretary of the Air Force (Acquisition, Technology and Logistics) (SAF/AQ) to mission partners. The JAIC will also continue resourcing AI/ML products in the areas of Electromagnetic Spectrum Operations (EMSO) and Strategic Mobility in accordance with the direction of the DOD AI Wxecutive Steering Group (ESG). In FY22, The Joint Warfighting Operations mission initiative will deliver the Terrestrial Reconnaissance and Surveillance and sUAS product to partners for field testing, complete field testing and deliver to Army G-Boss Program office and service program. Integrate Strategy Robot into ATO, Joint Staff J8 - User Interface for existing air-to-air Force Structure Planning Tool and Joint Staff J8 - All-Domain Force Structure Planning Tool. Project Smart Sensor - Full- onboard processing and navigation and transition to U.S. Air Force Special Operations Command Program Executive Office Fixed Wing (AFSCO PEO FW) and MQ-9 Reaper Drone (MQ-9) System Program Office (SPO).</p>	128.239	148.447	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>	<b>Project (Number/Name)</b> JA1 / <i>Joint Artificial Intelligence Center (JAIC)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>In FY22, The Warfighter Health mission initiative will work with the Defense Health Agency (DHA) to transition the initial rollout of Medical Imagery Analysis to Military medical diagnosis facilities. The JAIC will continue work in Medical Imaging, Suicide Intervention &amp; Prevention, Point of Injury Decision Support, and Data Commons AI/ML products.</p> <p>In FY22, The JAIC's Business Process Transformation initiative will work with the DoD Comptroller's Advanced Analytics (ADVANA) Team, Office of Chief Management Officer (OCMO)/Washington Headquarters Services, OCMO/Data Insights Directorate, and Undersecretary Defense for Intelligence USD(I) and will begin to test and integrate GAMECHANGER with multiple user groups. The JAIC will also continue to development of Humanless Unmatched Transactions (HUnT), Acquisition Alert, MyNavy HR, and Army Talent Assignment Recommender and begin transition efforts to partners.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The decrease from FY 2022 to FY 2023 is due to The JAIC transition to the office of the Chief Digital and Artificial Intelligence Officer (CDAO).</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	128.239	148.447	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The JAIC acquisition, management, and contracting strategy follows guidance outlined in the DoD 5000 series directives, Federal Acquisition Regulation (FAR) and FAR supplement policies and procedures. Management uses project management tools and meetings to ensure delivery of stated capabilities and performance criteria.



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>	<b>Project (Number/Name)</b> JA1 / <i>Joint Artificial Intelligence Center (JAIC)</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Joint Artificial Intelligence Center (JAIC)</b>	
Joint Artificial Intelligence Center (JAIC)	██████████

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Joint Artificial Intelligence Center (JAIC)</b>	
Joint Artificial Intelligence Center (JAIC)	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604532K / <i>Joint Artificial Intelligence Center (JAIC)</i>	<b>Project (Number/Name)</b> JA1 / <i>Joint Artificial Intelligence Center (JAIC)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Artificial Intelligence Center (JAIC)</i></b>				
Joint Artificial Intelligence Center (JAIC)	2	2020	4	2022

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	189.979	17.080	16.233	19.145	-	19.145	19.551	19.791	23.484	20.331	Continuing	Continuing
E65: <i>Modeling and Simulation</i>	109.184	10.609	4.101	4.085	-	4.085	4.227	4.324	4.428	4.520	Continuing	Continuing
T62: <i>DoD Information Network (DODIN) Systems Engineering and Support</i>	80.795	6.471	9.997	15.060	-	15.060	15.324	15.467	19.056	15.811	Continuing	Continuing
T-0010: <i>Enterprise Messaging</i>	0.000	0.000	2.135	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Information Infrastructure Engineering and Integration effort encompasses two projects: Modeling and Simulation and DoD Information Network (DODIN) Systems Engineering and Support. There are two major activities under the Modeling and Simulation project: Modeling and Simulation and DODIN Enterprise Wide Systems Engineering (EWSE).

The DODIN EWSE activity resolves near term (one to three years) high-priority technical issues defined by DoD Chief Information Officer (DoD CIO) and Defense Information Systems Agency (DISA), that impact operational capabilities affecting DODIN End-to-End (E2E) interoperability and performance.

The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD CIO, the DISA Network Services Directorate, the DISA Enterprise Services Directorate, Program Executive Office-Mission Assurance, the Defense Information Systems Network Command Center and Joint Communications Simulation System users in DoD.

The DODIN Systems Engineering and Support project performs discovery, research, development and experimentation of emerging and commercial technologies through the Office of the Chief Technology Officer (OCTO) Emerging Technology Directorate (EM) (formerly OCTO) to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP). EM identifies these gaps/shortfalls, pursues leading innovative solutions from industry, academia, and the Federal sector, and engages industry partners for commercial best practices. EM conducts technical system engineering reviews and oversight of DISA and DoD enterprise products and services. EM resolves mission partner gaps and agency challenges requiring technical and/or process innovation in Machine Learning/Artificial Intelligence (AI), Mobility, Assured Identity, Rapid Transition, Cyber Defense, and Blockchain among other technologies.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	17.080	16.233	0.000	-	0.000
Current President's Budget	17.080	16.233	19.145	-	19.145
Total Adjustments	0.000	0.000	19.145	-	19.145
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year(FG)	0.000	-	19.145	-	19.145

**Change Summary Explanation**

FY2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The increase of \$2.912 in FY 2023 is to support the Tech Innovation effort known as Quantum Resistant Cryptography. The cryptography used today to authenticate and secure data-in-transit is susceptible to attack from quantum computers and must be replaced. DISA must prepare to adopt new quantum resistant algorithms to secure communications, protect data integrity and digital signatures. These new quantum resistant algorithms are not a drop-in replacement. DISA must establish a new Post-Quantum Certificate (PQC) infrastructure and transition DoD mission applications from legacy cryptographic algorithms to PQC compliant algorithms. These funds will support the ability to execute concept exploration, design a prototype to evaluate the PQC algorithms and to adapt the current DoD Public Key Infrastructure (PKI) standards to be able to use the PQC algorithms for testing and development.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>E65: Modeling and Simulation</i>	109.184	10.609	4.101	4.085	-	4.085	4.227	4.324	4.428	4.520	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Modeling and Simulation project provides architecture, systems engineering and end-to-end (E2E) analytical functions for the Defense Information Systems Agency (DISA) and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Modeling and Simulation activities support the Department of Defense (DoD) communications planning and investment strategy, including: application performance assessments, contingency planning, network capacity planning and diagnostics, and systems-level modeling and simulation. Project efforts provide across-theater information awareness for Combatant Commands through application solutions for integrated networks, including DoD’s missions in Afghanistan and the Defense Information Systems Network (DISN) by: (1) supporting the development and implementation of DoD Information Network (DODIN) Enterprise Wide Systems Engineering (EWSE) processes essential to evolving the DODIN in a manner that enables interoperability and E2E performance for critical DODIN programs; (2) developing standardized DISA systems analyses and integration processes to improve systems integration across DISA for all DISA developed communication systems and services; and (3) providing the underlying modeling and simulation and analytical support for E2E DISA and DoD systems engineering and assessment.

Project efforts provide DoD decision makers with services and a suite of tools capable of identifying key points of impact on DoD command and control information systems and recommending trade-offs within the DODIN configuration with regard to prioritized performance, availability, and security. This effort will reduce the risk in products deployed to the warfighter through improved network performance and traffic analysis, and an efficient means of troubleshooting and subsequent redesign.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Modeling and Simulation	5.918	2.908	2.398
<b>Description:</b> The Modeling and Simulation project provides architecture, systems engineering and end-to-end (E2E) analytical functions for the Defense Information Systems Agency (DISA) and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Modeling and Simulation activities support the Department of Defense (DoD) communications planning and investment strategy, including: application performance assessments, contingency planning, network capacity planning and diagnostics, and systems-level modeling and simulation. Project efforts provide across-theater information awareness for Combatant Commands through application solutions for integrated networks, including DoD’s missions in Afghanistan and the Defense Information Systems Network (DISN) by: (1) supporting the development and implementation of DoD Information Network (DODIN) Enterprise Wide Systems Engineering (EWSE) processes essential to evolving the DODIN in a manner that enables interoperability and E2E performance for critical DODIN programs; (2) developing standardized DISA systems analyses and integration processes to improve systems integration across DISA for all DISA developed communication systems and services; and (3) providing the underlying modeling and simulation and analytical support for E2E DISA and DoD systems engineering and assessment.			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2022 Plans:</i></b> Will continue fielding modeling tools integrated with the DISN for automated DISN views and troubleshooting tools and begin migration to cloud based development and monitoring tools. Will develop modeling and simulation tools to analyze planned changes to the DISN optical and IP core network, data centers, internet and commercial cloud computing gateways, universal gateways, enterprise services, and network security solutions. Will develop capabilities for analysis of software defined networking. Will perform test and evaluation of DISN Internet Access Point security solutions with government and contracted labor support. Will research technologies and solutions that can be transitioned to operations and will demonstrate feasibility through solutions analysis and proof-of-concept development and test. Will perform product and solution assessments using developed modeling tools to provide technical solutions for IT capabilities to ensure compatibility and interoperability with the DISN, on-premise and cloud data centers, and JIE solution architectures. Will develop application performance monitoring to support reliable operation of enterprise services and applications.</p> <p><b><i>FY 2023 Plans:</i></b> Will continue fielding modeling tools integrated with the DISN for automated DISN views and troubleshooting tools and begin migration to cloud based development and monitoring tools. Will develop modeling and simulation tools to analyze planned changes to the DISN optical and IP core network, data centers, internet and commercial cloud computing gateways, universal gateways, enterprise services, and network security solutions. Will develop capabilities for analysis of software defined networking. Will perform test and evaluation of DISN Internet Access Point security solutions with government and contracted labor support. Will research technologies and solutions that can be transitioned to operations and will demonstrate feasibility through solutions analysis and proof-of-concept development and test. Will perform product and solution assessments using developed modeling tools to provide technical solutions for IT capabilities to ensure compatibility and interoperability with the DISN, on-premise and cloud data centers, and JIE solution architectures. Will develop application performance monitoring to support reliable operation of enterprise services and applications.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The decrease of -\$0.510 from FY 2022 to FY 2023 is due to the reduction to technical contract support.</p>			
<p><b><i>Title:</i></b> E2E Architecture</p> <p><b><i>Description:</i></b> Provides architecture, systems engineering and end-to-end (E2E) analytical functions for the Defense Information Systems Agency (DISA) and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Modeling and Simulation activities support the Department of Defense (DoD) communications planning and investment strategy, including: application performance assessments, contingency planning, network capacity planning and diagnostics, and systems-level modeling and simulation. Project efforts provide across-theater information awareness for Combatant Commands through application solutions for integrated networks, including DoD's missions in Afghanistan and the Defense Information Systems Network (DISN) by: (1) supporting the development and implementation of DoD Information Network (DODIN) Enterprise Wide</p>	4.691	1.193	1.687

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Systems Engineering (EWSE) processes essential to evolving the DODIN in a manner that enables interoperability and E2E performance for critical DODIN programs; (2) developing standardized DISA systems analyses and integration processes to improve systems integration across DISA for all DISA developed communication systems and services; and (3) providing the underlying modeling and simulation and analytical support for E2E DISA and DoD systems engineering and assessment.</p> <p><b>FY 2022 Plans:</b> Continuation of DoD Cybersecurity Analysis and Review (DoDCAR) analysis tools and testing of implementations of DoDCAR based cyber architecture and system assessment methods. This effort will develop add Mil-Cloud networking, and validation of network security solutions. Will expand the testing of Mil-Cloud access point solutions with government and contracted labor support. Will perform additional product validation and solution testing. Will evaluate performance monitoring framework to support reliable operation of enterprise services and applications. This task will develop continued assessment, testing, prototype improvement and implementation of DoDCAR (DoD Cybersecurity Analysis and Review processes. This includes portfolio management against threat coverage of DoD Networks across the DODIN. FY 2021 to FY 2022 Increase/Decrease Statement: The increase of +\$0.016 from FY 2021 to FY 2022 is due to providing an additional .5 architecture studies.</p> <p><b>FY 2023 Plans:</b> Support architecture development for DISA innovation and digital transformation projects to include Software-Defined Enterprise (SDE), Global Orchestrator (GO), Zero-Trust Architecture (ZTA), etc. Develop and maintain DODAF based end-to-end IT engineering architectures and artifacts across the DISA enterprise. This includes modification of software and database code to address customer enhancements. Continue development of Tactical Data Link Configuration Management Tool (TCMT) Application Development of a Standards production tool to improve configuration management of 18 unique MIL-STDs and NATO STANAGs.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.494 from FY 2022 to FY 2023 is due to funding being misaligned to the incorrect IT initiative. Funding moved to the correct line for execution and budgeting.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	10.609	4.101	4.085

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	16.911	-	-	-	-	-	-	-	-	-	Continuing Continuing

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
------------------	----------------	----------------	-------------------------------	------------------------------	--------------------------------	----------------	----------------	----------------	----------------	-----------------------------------	-------------------

**Remarks**

**D. Acquisition Strategy**

Enterprise Wide Systems Engineering (EWSE) uses contractors to assist/supplement the Government lead/team for technical activities. Subject matter experts in both large and small businesses are sought for the engineering support. Firm fixed price contracts with one option year are typically used in open competition. Furthermore, technical work with Federally Funded Research and Development Centers (FFRDCs) such as MITRE and MIT Lincoln Lab are established and coordinated when the Government can leverage their expertise and R&D in the key technology.

Modeling and Simulation uses a range of contractors for modeling support to the various projects. Contractors range from small to large business, predominantly using open competition methods and Firm Fixed Price (FFP) tasks and utilizing multi-year (base plus option years) contracts where possible. Support includes network modeling tool and processes development to adapt to ever-evolving DoD programs and projects, analyses, capacity planning, and network redesign using the models. Some specific support (e.g., integration with proprietary software) will require contracting with OPNET (e.g., sole source). Federally Funded Research and Development Centers (FFRDCs) are also considered depending upon the task.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	SS/FFP	OPNET Tech, Inc : Bethesda, MD	10.463	1.210	Feb 2021	0.276	Feb 2022	0.276	Feb 2023	-		0.276	Continuing	Continuing	Continuing
Product Development 2	C/CPFF	APPTIS : Chantilly, VA	3.938	1.121	Feb 2021	0.187	Feb 2022	0.187	Feb 2023	-		0.187	Continuing	Continuing	Continuing
Product Development 3	SS/FFP	Falls Church, VA : Falls Church, VA	1.312	-		-		-		-		-	0.000	1.312	-
Product Development 4	C/FFP	Booz Allen, Hamilton : McLean, VA	5.363	1.184	Feb 2021	0.250	Feb 2022	0.250	Feb 2023	-		0.250	Continuing	Continuing	Continuing
Product Development 5	C/FFP	NRL : Washington, DC	0.100	-		-		-		-		-	0.000	0.100	-
Product Development 6	C/CPFF	Soliel, LLC : Reston, VA	3.862	-		-		-		-		-	0.000	3.862	-
Product Development 7	C/FFP	COMPTEL : Arlington, VA	2.805	-		-		-		-		-	0.000	2.805	-
Product Development 8	C/CPFF	COMPTEL : Arlington, VA	0.926	-		-		-		-		-	0.000	0.926	-
Product Development 9	C/CPFF	MIT Lincoln Labs : Cambridge, MA	13.299	-		-		-		-		-	0.000	13.299	-
Product Development 10	MIPR	Various : Various	11.268	-		-		-		-		-	0.000	11.268	-
Enterprise Wide Systems Engineering 11	C/FFP	Northrop Grumman : Fairfax, VA	1.784	-		-		-		-		-	0.000	1.784	-
Clear Sky Pilot	C/CPFF	AFRL Terremark : Various	24.083	-		-		-		-		-	0.000	24.083	-
Narus	C/CPFF	AFRL : Rome, NY	1.450	-		-		-		-		-	0.000	1.450	-
Cyber Accelerator	C/CPFF	DTIC : Alexandria, VA	7.516	-		-		-		-		-	0.000	7.516	-
Commercial Integration Demonstration	C/CPFF	DTIC : Alexandria, VA	2.750	-		-		-		-		-	0.000	2.750	-
Web Content Filtering: Perimeter Defense Integration	C/FFP	Oberon Associates : Ft. Meade, MD	1.854	-		-		-		-		-	0.000	1.854	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Host Based Security Ops Assessment	C/FFP	Summit Technologies, Inc : Ft Meade, MD	0.700	-		-		-		-		-	0.000	0.700	-
Secure Configuration Management Ops Assessment	C/FFP	Cyber Security research and Solutions Corp : Ft Meade	0.964	-		-		-		-		-	0.000	0.964	-
Product Development 11	C/CPFF	Johns Hopkins University Applied Physics : Laurel, MD	0.861	-		-		-		-		-	0.000	0.861	-
Engineering Technical Services	MIPR	Axom Technologies : Fort Meade	1.150	-		-		-		-		-	0.000	1.150	-
Requirements Analysis/ Program Management: Civilian Pay	MIPR	Various : Various	2.057	-		-		-		-		-	Continuing	Continuing	Continuing
Cloud Hosted Shared Services	C/FFP	Nisga's Data Systems LLC : Herndon, VA	1.350	-		-		-		-		-	0.000	1.350	-
Cloud/ Gateway Pilot	C/FFP	Alvarez and Associates : Tysons Corner, VA	0.304	-		-		-		-		-	0.000	0.304	-
Cloud/ Gateway Pilot	C/FFP	BY Light Professional IT Services : : Arlington, VA	0.413	-		-		-		-		-	0.000	0.413	-
DoDCAR	C/FFP	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			100.572	3.515		0.713		0.713		-		0.713	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
--	--	---

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IP Network Modeling	SS/FFP	Riverbed : Bethesda, MD	2.661	2.438	Sep 2021	2.036	Sep 2022	2.020	Sep 2023	-		2.020	Continuing	Continuing	-
JCSS/JRSS Modeling	C/FFP	Booz Allen, Hamilton : McLean, VA	2.628	2.144	May 2021	1.210	May 2022	1.210	May 2023	-		1.210	Continuing	Continuing	-
JRSS Modeling	C/FFP	IPKEYS : Annapolis Junction, MD	0.373	-		-		-		-		-	0.000	0.373	-
E2E Performance	C/FFP	Tapestry : Chambersburg, PA	0.251	1.433	Oct 2020	-		-		-		-	0.000	1.684	-
E2E Performance	C/FFP	Various : Various	0.627	1.079	Oct 2020	0.142	Oct 2021	0.142	Oct 2022	-		0.142	Continuing	Continuing	-
<b>Subtotal</b>			6.540	7.094		3.388		3.372		-		3.372	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	SS/CPFF	Comptel : Arlington, VA	2.072	-		-		-		-		-	0.000	2.072	-
<b>Subtotal</b>			2.072	-		-		-		-		-	0.000	2.072	N/A

			Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			109.184	10.609	4.101	4.085	-	4.085	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Horizontal Engineering</b>	
Horizontal Engineering	
<b>Modeling and Simulation Applications</b>	
Modeling and Simulation Applications	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Horizontal Engineering</b>	
Horizontal Engineering	
<b>Modeling and Simulation Applications</b>	
Modeling and Simulation Applications	



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Horizontal Engineering</i></b>				
Horizontal Engineering	1	2017	4	2027
<b><i>Modeling and Simulation Applications</i></b>				
Modeling and Simulation Applications	1	2017	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>				<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T62: <i>DoD Information Network (DODIN) Systems Engineering and Support</i>	80.795	6.471	9.997	15.060	-	15.060	15.324	15.467	19.056	15.811	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The DoD Information Network (DODIN) Systems Engineering and Support project identifies key technology areas that are essential for Defense Information Systems Agency (DISA) including: Machine Learning/Artificial Intelligence (AI), Mobility, Assured Identity, Rapid Transition, Cyber Defense, and Blockchain among other technologies.

The DODIN Systems Engineering and Support Project ensure the technical strategies for the Defense Information Systems Agency (DISA) are in line with the DoD IT Efficiency strategy and the latest Department of Defense Chief Information Office (DoD CIO) Capabilities Planning Guidance (CPG) through the Emerging Technology Directorate (EM). These strategies will establish the foundation for DISA's technology investments and technical development. The EM leverages emerging technology to drive efficiencies and cost savings to the DoD, the Warfighter, and other Federal Agencies, and provides actionable, decision-oriented information to the Secretary of Defense, Joint Staff, Military Services, Combatant Commands, and other mission partners in satisfying DoD mission objectives.

Cyber security and cloud computing present critical near term challenges, especially the ability to securely leverage commercial cloud service offerings. The EM's partnership with Defense Advanced Research Projects Agency (DARPA) will assess and transition technologically relevant and mature solutions. Included are applications with a security wrapper that detect and mitigate cyberattacks; smart routing and managed reputation capability; embedded system defense capabilities; and resilient and intrusion-tolerant network capabilities.

Partnerships with industry, academia, and the Federal sectors will produce requisite cyber measures and ensure optimal use of commercial cloud services. The EM will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the Technology Assessment Framework (TAF) and the DISA Technology Information Repository (DTIR), the EM will perform "quick looks" and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities; physical containers to enable mobile data center; emerging open source Storage Service Application Programming Interfaces (APIs) and/or abstractions and global standards for storage services; analytic platform performance baselines of emerging commercial analytic platform products; advanced approaches to Continuity of Operations (COOP) in a hybrid cloud environment; and the next generation software defined networks for automating and virtualizing the DODIN.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Department of Defense Information Network (DODIN) Systems Engineering and Support	6.471	9.997	15.060

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

**Description:** The DoD Information Network (DODIN) Systems Engineering and Support project aligns with the updated DISA Strategic Plan, which includes the Chief Technology Officer’s Outlook and a Technology Watchlist. The Watchlist identifies key technology areas that are essential for Defense Information Systems Agency (DISA) including: Process/Automation, Cloud, Cyber Security, End-User Devices, and Communication (DODIN, Mobile/End-User Devices). The DODIN Systems Engineering and Support Project ensure the technical strategies for the Defense Information Systems Agency (DISA) are in line with the DoD IT Efficiency strategy .These strategies will establish the foundation for DISA's technology investments and technical development. The OCTO leverages emerging technology to drive efficiencies and cost savings to the DoD, the Warfighter, and other Federal Agencies, and provides actionable, decision-oriented information to the Secretary of Defense, Joint Staff, Military Services, Combatant Commands, and other mission partners in satisfying DoD mission objectives. Cyber security and cloud computing present critical near term challenges, especially the ability to securely leverage commercial cloud service offerings. The OCTO’s partnership with Defense Advanced Research Projects Agency (DARPA) will assess and transition technologically relevant and mature solutions. Included are applications with a security wrapper that detect and mitigate cyberattacks; smart routing and managed reputation capability; embedded system defense capabilities; and resilient and intrusion-tolerant network capabilities.

Partnerships with industry, academia, and the Federal sectors will produce requisite cyber measures and ensure optimal use of commercial cloud services. The OCTO will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the Technology Assessment Framework (TAF) and the DISA Technology Information Repository (DTIR), the OCTO will perform “quick looks” and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities; physical containers to enable mobile data center; emerging open source Storage Service Application Programming Interfaces (APIs) and/or abstractions and global standards for storage services; analytic platform performance baselines of emerging commercial analytic platform products; advanced approaches to Continuity of Operations (COOP) in a hybrid cloud environment; and the next generation software defined networks for automating and virtualizing the DODIN. The Agency's internal innovation suggestion program, DISAruptive, previously resourced by available government civilian time, will be revamped in FY2022 with relaunch by FY23 to deliver technical expertise and including training for potential innovators and innovation suggestion technical support including limited test conduct, instrumentation, or test materials.

**FY 2022 Plans:**

Work with mission partners to discover, test, and deploy appropriate technology solutions/processes, including efforts in Multi-Class Mobile endpoint, End-User Devices, Assured Identity, Machine Learning/Artificial Intelligence (AI), Cyber Defense, Cloud Computing, and Process Automation. Perform discovery, research, development and experimentation of emerging and commercial technologies to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP).

FY 2021	FY 2022	FY 2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Collaborate and influence commercial leaders in innovative technology and practices in an effort to guide the Department towards the 21st century warfighting Domain. Pursue leading innovative solutions from industry, academia, and the Federal sector, and engage industry partners for commercial best practices. Conduct technical system engineering reviews and oversight of DISA and DoD enterprise products and services. Further Operationalize DISAruprive enhancements, continue training support curriculum, and enhance R&amp;D support to innovative ideas received through the DISAruprive portal.</p> <p><b>FY 2023 Plans:</b> The Emerging Technology (EM) directorate conducts critical research, discovery, test and evaluation of operationally enabling IT capabilities and services. EM utilizes programmed funding baselines in the identification and evaluation of leading government and industry technologies, products, and methodologies to address mission critical requirements across DISA and the DoD. EM technology assessments and integrations aim to provide scalable and cost-effective solutions to meet the unique operational and security requirements of the department. Example focus areas include Quantum Resistant Cryptography, Blockchain, Cyber Asset Inventory Management, Robotic Process Automation and Machine Learning/Artificial Intelligence. Aligned to agency and department strategic objectives, EM facilitates collaboration among industry and government partners through technical exchange sessions, proof of concepts, and operational pilot initiatives and limited production deployments in order to validate the potential operational and financial benefits of candidate solutions and capabilities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$5.063 from FY 2022 to FY 2023 is due to restoral of PB22 relook decrease error and funding the Tech Innovation effort known as Quantum Resistant Cryptography (QRC). The QRC initiative involves RDT&amp;E of various quantum computing technology components as directed by the President’s National Security Strategy and Quantum Computing Research Act, to enable increased cyber security across the DoD. The cryptography used today to authenticate and secure data-in-transit is susceptible to attack from quantum computers and must be replaced. This funding will support the ability to execute concept exploration, design a prototype to evaluate the Post-Quantum Certificate algorithms and to adapt the current DoD Public Key Infrastructure (PKI) standards to be able to use the PQC algorithms for testing and development.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	6.471	9.997	15.060

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	2.962	3.035	2.584	-	2.584	-	-	-	-	-	Continuing Continuing
<b>Remarks</b>											

UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>

**D. Acquisition Strategy**

Market research during the acquisition process includes a review of DISA contracts, other DoD contract vehicles, and other Federal Government agency contracts which are advertised for Government-wide usage. This market research also includes consideration of small businesses including minority/women owned (8A) businesses, Historically Black Colleges and Universities, mentor/protégé and other specialized contract vehicles and processes. Market research evaluates all contractors available from DISA sources for their ability to deliver the products specifically required for the unique program efforts. The program works collaboratively with vendors to obtain generic cost data for planning and analysis purposes. Past and current contract prices for similar work and other government-wide agency contracts provide additional sources of information. Quotes from multiple sources help provide averages for more realistic cost estimates. DISA makes a concerted effort to award many of its contracts to small businesses. Additionally, many of the DISA contracts are awarded with multiple option periods. These have the benefit of fixing labor costs over an extended period and minimizing the administrative costs associated with re-issuing short-term contracts.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DODIN) Systems Engineering and Support
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering and Technical Services	FFRDC	MITRE : McLean, VA	14.738	0.505	Oct 2020	0.671	Nov 2021	-		-		-	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	0.000	0.249	-
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	0.000	1.211	-
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	0.000	1.601	-
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	0.000	11.794	-
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	4.260	-		-		-		-		-	0.000	4.260	-
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : Various	1.212	-		-		-		-		-	0.000	1.212	-
Engineering Technical Services	MIPR	Various : Chambersburg, PA	5.399	1.967	Jan 2021	-		-		-		-	Continuing	Continuing	Continuing
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	2.091	-		-		-		-		-	0.000	2.091	-
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		1.300	Mar 2022	1.300	Mar 2023	-		1.300	Continuing	Continuing	Continuing
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	0.000	0.691	-
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.202	-		-		-		-		-	0.000	0.202	-
Product Development	C/FFP	SOLERS : Arlington, VA	3.023	-		-		-		-		-	0.000	3.023	-
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	1.062	-		-		-		-		-	0.000	1.062	-
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	0.000	0.351	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DODIN) Systems Engineering and Support
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	4.481	-		-		-		-		-	0.000	4.481	-
Engineering Technical Services	C/Variou	IV2: IT Consulting Services, LLC : Jackson, WY	1.674	-		-		-		-		-	0.000	1.674	-
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : Various	0.741	-		-		-		-		-	0.000	0.741	-
Engineering Technical Services	C/CPFF	TIE NEMS: B&D Consulting : Various	0.564	-		-		-		-		-	0.000	0.564	-
Engineering Technical Services	C/Variou	Tapestry Technologies, INC : Various	3.173	-		-		-		-		-	0.000	3.173	-
Management Services - Civilian Pay	Various	Various : Ft. Meade, MD	6.428	-		-		-		-		-	0.000	6.428	-
Engineering Technical Services	C/FFP	PMPC-Itility LLC : Ft. Meade, MD	0.807	-		-		-		-		-	Continuing	Continuing	Continuing
Information Assurance	C/CPFF	Tapestry Tech : Chambersburg, PA	1.183	0.600	Jan 2021	1.061	Dec 2021	1.245	Jan 2023	-		1.245	Continuing	Continuing	Continuing
Sys Engineering	C/CPFF	Various : Ft. Meade, MD	9.808	2.221	Dec 2020	1.057	Mar 2022	4.786	Nov 2022	-		4.786	Continuing	Continuing	Continuing
Management Services - Civilian Pay	C/CPFF	Various : Ft. Meade	3.406	0.678	Mar 2021	3.955	Nov 2021	5.651	Oct 2022	-		5.651	Continuing	Continuing	Continuing
Program Management and Knowledge Management	C/FFP	TBD : TBD	-	-		1.453	Mar 2022	1.129	Jan 2023	-		1.129	Continuing	Continuing	Continuing
(DODIN) Systems Engineering and Support	C/FFP	TBD : TBD	0.270	0.500	Mar 2021	0.500	Mar 2022	0.949	Mar 2023	-		0.949	Continuing	Continuing	Continuing
<b>Subtotal</b>			80.795	6.471		9.997		15.060		-		15.060	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			80.795	6.471		9.997		15.060		-		15.060	Continuing	Continuing	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Information Systems Agency							<b>Date:</b> April 2022			
<b>Appropriation/Budget Activity</b> 0400 / 7			<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>			<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>				
	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	

Remarks



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DODIN) Systems Engineering and Support

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Technical Direction Agent (TDA)</b>																												
Technical Direction Agent (TDA)																												
<b>Engineering Support</b>																												
Engineering Support																												
<b>Industry/University Technical Research</b>																												
Industry/University Technical Research																												
<b>Technology Assessments</b>																												
Technology Assessments																												
<b>DISA Ruptive</b>																												
DISA Ruptive																												
<b>Research and Development for technical solutions</b>																												
Research and Development for technical solutions																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Technical Direction Agent (TDA)</b>																												
Technical Direction Agent (TDA)																												
<b>Engineering Support</b>																												
Engineering Support																												
<b>Industry/University Technical Research</b>																												
Industry/University Technical Research																												
<b>Technology Assessments</b>																												
Technology Assessments																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DODIN) Systems Engineering and Support
--	---	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>DISA Ruptive</i></b>																												
DISA Ruptive																												
<b><i>Research and Development for technical solutions</i></b>																												
Research and Development for technical solutions																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DODIN) Systems Engineering and Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Technical Direction Agent (TDA)</b>				
Technical Direction Agent (TDA)	1	2017	4	2024
<b>Engineering Support</b>				
Engineering Support	1	2017	4	2024
<b>Industry/University Technical Research</b>				
Industry/University Technical Research	1	2017	4	2024
<b>Technology Assessments</b>				
Technology Assessments	1	2017	4	2027
<b>DISA Ruptive</b>				
DISA Ruptive	4	2020	3	2027
<b>Research and Development for technical solutions</b>				
Research and Development for technical solutions	4	2019	3	2027

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T-0010 / <i>Enterprise Messaging</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
T-0010: <i>Enterprise Messaging</i>	0.000	0.000	2.135	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Enterprise Messaging (EM) is an infrastructure service providing standardized mechanisms to exchange critical and globally visible data between applications/machines and provides the infrastructure for joint information sharing across the entire DoD. DISA Tasking Order (DTO) 15-544: Cybersecurity Risk Management Data Sharing mandates use of EM for messaging-to-messaging (M2M) data exchanges.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Enterprise Messaging (EM)	-	2.135	-
<b>Description:</b> Define and deploy a distributed EM capability that is highly available, secure, and scalable with redundancy, built-in self-recovery, and zero downtime for updates for the next major version of the EM capability.			
<b>FY 2022 Plans:</b> Build the test environments on Secure Internet Protocol Router/Non-Secure Internet Protocol Router (SIPR/NIPR) and developing new Enterprise Messaging technology to replace the current deployed systems. These systems will run in parallel until fully operational capability (FOC) is achieved. To achieve FOC an operational assessment of the new infrastructure, software, security requirements, and user functional testing will be completed.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease of -\$2.135 from FY 2022 to FY 2023 is due to project completion.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	2.135	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T-0010 / <i>Enterprise Messaging</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Enterprise Messaging System</b>	
Engineering Technical Services	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T-0010 / <i>Enterprise Messaging</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Enterprise Messaging System</i></b>				
Engineering Technical Services	4	2022	3	2023

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	212.458	10.343	10.275	13.195	-	13.195	13.474	12.860	12.142	12.366	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	212.458	10.343	10.275	13.195	-	13.195	13.474	12.860	12.142	12.366	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Information Systems Network (DISN) is the Department of Defense's (DoD's) consolidated worldwide telecommunications capability that provides secure, end-to-end information transport for DoD operations. It also provides the warfighter and the Combatant Commands (COCOMs) with a robust Command, Control, Communications, Computing, and Intelligence infrastructure to support DoD net-centric missions and business requirements. The Defense Red Switch Network (DRSN) is a DoD Secure Voice, Command and Control Network that is controlled and directed by the Joint Staff and the Office of the Secretary of Defense. It provides multi-level secure, rapid, ad hoc, voice calling and conferencing capability to the President, Secretary of Defense, Services, COCOMs, subordinate organizations (military and civilian) and coalition allies. DRSN also supports the Presidential and National Voice Conferencing (PNVC) (formerly known as National Emergency Action Decision Network (NEADN)) and the Enhanced Pentagon Capability/Survivable Emergency Conferencing Network. These funds support three major efforts:

**DISN Systems Engineering Support:** This effort includes engineering for Networking capabilities and optical transport capabilities to ensure the essential operations of a robust and secure DISN; refreshing the systems that instrument and automate the operations, administration, maintenance and provisioning functions and creating a single DISN-wide view for network managers and operators.

**DoD Mobility:** The Mobility Program will lead the development of an Enterprise Solution to support Controlled Unclassified Information (CUI) and leverage commercial carrier infrastructure to provide entry points for both classified and unclassified wireless capabilities. Continued evolution and expansion, within the Department, of the DoD Mobility program will allow for increased mobile services in direct support of the warfighter and the COCOMs.

The FY23 funding request was reduced by  $-\$(1.796)$  million to account for the availability of prior year execution balances.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	10.343	10.275	0.000	-	0.000
Current President's Budget	10.343	10.275	13.195	-	13.195
Total Adjustments	0.000	0.000	13.195	-	13.195
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	13.195	-	13.195

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The increase of \$2.920 in FY2023 is to support the sustainment of the Defense Red Switch Network( DSRN ) to include the protection of TS/SCI level communications between POTUS and national security leadership.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS				<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T82: DISN Systems Engineering Support	212.458	10.343	10.275	13.195	-	13.195	13.474	12.860	12.142	12.366	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Defense Information Systems Network (DISN) Systems Engineering Support project encompasses four activities:

Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh): Provides engineering technical expertise to support and integrate newer, more efficient technologies required to replace end of lifecycle equipment and to achieve more efficient Networking technologies. These new technologies provide protected and assured services for critical support to the warfighter as well as other DoD and federal customers.

Element Management System (EMS): Provides operational and network operating systems that instrument and automate the operations, administration, maintenance and provisioning functions creating a single DISN-wide view for network managers and operators. EMS is a component of the DISN Operational Support Systems (OSS).

Peripheral and Component Design (Secure Voice Switches): This equipment satisfies unique military requirements for multi-level security (i.e., extensive conferencing/conference management capabilities and features, and gateway functions) that are not available in commercial products.

DoD Mobility: Lead the research, development, and deployment of Enterprise controlled unclassified information (CUI) and classified mobile technologies, to increase information sharing and use of secure mobile devices across the global DoD. Continued evolution and expansion of mobility capabilities, within the Department, will revolutionized the way Combatant Commands, Services, and Agencies do work by enabling on-demand access to services and information anytime from anywhere.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh)	5.866	4.583	3.737
<b>Description:</b> Provides engineering technical expertise to support and integrate newer, more efficient technologies required to replace end of lifecycle equipment and to achieve more efficient Networking technologies. These new technologies provide protected and assured services for critical support to the warfighter as well as other DoD and federal customers.			
<b>FY 2022 Plans:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Will continue to perform Research, Test and Evaluation activities in Software Environment, Next Generational Networking to include Gray networks and all associated encryption technologies.</p> <p><b>FY 2023 Plans:</b> Will continue to perform Research, Test and Evaluation activities in Software Environment, Next Generational Networking to include Gray networks and all associated encryption technologies.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease of -\$0.846 from FY 2022 FY 2023 is due to reduction in Network Architecture requirements.</p>			
<p><b>Title:</b> Peripheral and Component Design</p> <p><b>Description:</b> This equipment satisfies unique military requirements for multi-level security (i.e., extensive conferencing/conference management capabilities and features, and gateway functions) that are not available in commercial products.</p> <p><b>FY 2022 Plans:</b> Continue to support replacement of obsolete equipment as it relates to Secure Voice Switches.</p> <p><b>FY 2023 Plans:</b> Will continue to perform Research, Test and Evaluation activities in Software Environment, Next Generational Networking to include Gray networks and all associated encryption technologies as well as the development of CSSP.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$2.959 from FY 2022 to FY 2023 is due to the projected cost associated with the implementation of CSSP across the DRSN network.</p>	0.002	1.547	4.506
<p><b>Title:</b> Mobility</p> <p><b>Description:</b> The Mobility Program lead the research, development, and deployment of Enterprise controlled unclassified information (CUI) and classified mobile technologies, to increase information sharing and use of secure mobile devices across the global DoD. Continued evolution and expansion of mobility capabilities, within the Department, will revolutionized the way Combatant Commands, Services, and Agencies do work by enabling on-demand access to services and information anytime from anywhere.</p> <p><b>FY 2022 Plans:</b> Identify, assess, explore, and develop unclassified and classified mobile technologies enhancements that will increase information sharing and use of secure mobile devices across the global DoD. Support moving towards a desktop zero environment. Developmental and production testing of new-model commercial mobile devices per product baseline, carrier, and platform authenticated against the Mobile Device Manager. Security, interoperability, and functional evaluation of mobile</p>	4.475	4.145	4.952

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>applications. Production testing of the applications development framework and integration testing for infrastructure components. The modernization of the Secure View capability will require prototype work to deliver a SIPR data at rest capability in a Windows environment. The development and deployment of the Unclassified and Classified Mobility Gold Core pre-production environments will support ongoing and future mobility prototype integration testing with various DMUC and DMCC applications/capabilities (i.e., email, purebred, etc.).</p> <p><b>FY 2023 Plans:</b> Assess, test and expand the use of Derived Credentials capabilities to do continuous, multi-factor verification that leverages contextual attributes on a mobile device to make real-time security decisions within the device and when accessing remote systems; leveraging a device's innate functionality (e.g., application sandboxing, camera, GPS, etc.) to sense and measure the environment, user interaction and application interaction to ascertain risk. Develop mobile access control functionalities that leverage cloud-based technology to secure access to critical data without the need for resident data on the mobile device. Identify, assess, explore, and develop standardized, cost-effective automated methods and tools to develop, vet, deploy and manage mobile applications. Explore and test 5G capabilities and applications that can enable the use of 5G features such as network slicing and mobile edge cloud architectures. Modernize the current DoD Mobility Unclassified Capability (DMUC) applications and capabilities by acquire and deploying a cloud-based Next Generation Enterprise Mobile Management (EMM) capabilities, which will enable DoD-wide utilization of non-Government owned (i.e., personally, or corporately owned) mobile devices, enhanced threat protection for mobile applications, and integrated security monitoring. Evaluate and deploy a virtual/zero desktop infrastructure and applications that can deliver information to mobile devices using laptops, tablets, or smartphones. Developmental and production testing to enhance and expand the next generation Windows Data-At-Rest for Secret (WINDAR-S) capability. Assess, test, and deploy future DoD Mobility Classified Capability - Secret (DMUCC-S) technologies to enable access to secure classified voice/data communications through off-the-shelf products.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.807 from FY 2022 to FY 2023 is due to increased support of technology innovation initiatives including Zero Trust and Enterprise Perimeter Protection (EPP); allowing for enterprise cloud access and security broker. Zero Trust and EPP establishes a protection barrier between the Internet, mission partner networks, and commercial cloud services, providing the ability to detect, inspect, block, and collect traffic in accordance with security policies.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	10.343	10.275	13.195

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	
			Base	OCO	Total					Complete	Total Cost
• O&M/PE0303126K: <i>Operation &amp; Maintenance, Defense-Wide</i>	127.029	128.714	-	-	-	-	-	-	-	Continuing	Continuing
• Procurement/PE0303126K: <i>Procurement, Defense-Wide</i>	28.141	26.982	-	-	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Products acquired for Element Management System (EMS) requirements are professional services, network management software, supporting hardware, and development tools. Professional services will be procured through existing contracts available to DISA. The DISA Computing Services will be used for hardware and software leased managed services, as well as the National Aeronautics and Space Administration (NASA) enterprise equipment contracting vehicle when necessary and applicable.

The Internet Protocol (IP) enabling of the DRSN Digital Small Switch (DSS-2A) switch, Secure voice conference management improvements, High Altitude Electromagnetic Pulse (HEMP) Phone and related DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the Secure Voice Switch systems manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.

The Mobility initiative supports systems engineering and development of a DoD Mobility solution. The focus is on acquisitions to support the program across the DoD to include scheduling, delivery approach, and risk management. This also includes the vision and phased approach to unified capabilities for classified and unclassified wireless capabilities to meet DoD needs.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon : Florida	17.152	1.462	Mar 2021	1.462	Mar 2022	1.945	Mar 2023	-		1.945	Continuing	Continuing	Continuing
Systems Engineering for IP Enabling DSS-2A Secure Voice Switch	C/T&M	Raytheon : Florida	21.440	-		-		-		-		-	0.000	21.440	-
Engineering & Technical Services for Information Sharing Services for Voice	C/T&M	SAIC : VA	2.774	-		-		-		-		-	0.000	2.774	-
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	Various : VA	2.026	-		-		-		-		-	0.000	2.026	-
Single Sign On	C/T&M	SAIC : Various	1.397	-		-		-		-		-	0.000	1.397	-
System Engineering for VoSIP	C/T&M	Various : Various	1.218	-		-		-		-		-	0.000	1.218	-
Space Vehicle Upload	SS/CPFF	Iridium : McLean, VA	12.635	-		-		-		-		-	0.000	12.635	-
Gateway Improvement	SS/CPFF	Iridium : McLean, VA	13.565	-		-		-		-		-	0.000	13.565	-
Field Application Tool	MIPR	NSWC : Dahlgren	6.635	-		-		-		-		-	0.000	6.635	-
DTCS Handset	SS/CPFF	Iridium : McLean, VA	5.850	-		-		-		-		-	0.000	5.850	-
Command and Control Handset	SS/CPFF	Iridium : McLean, VA	7.275	-		-		-		-		-	0.000	7.275	-
Alt. Supplier Development	MIPR	NSWC : Dahlgren, VA	3.450	-		-		-		-		-	0.000	3.450	-
Radio Only Interface	MIPR	NSWC : Dahlgren, VA	2.525	-		-		-		-		-	0.000	2.525	-
Remote Control Unit	SS/CPFF	Iridium : McLean, VA	2.100	-		-		-		-		-	0.000	2.100	-
Type 1 Security	SS/CPFF	Iridium : McLean, VA	6.455	-		-		-		-		-	0.000	6.455	-
Vehicle Integration	MIPR	NSWC : Dahlgren, VA	3.185	-		-		-		-		-	0.000	3.185	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	8.717	-		-		-		-		-	0.000	8.717	-
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis : VA	1.168	-		-		-		-		-	0.000	1.168	-
System Engineering and Technical Services for ISOM	Various	DITCO : Various	2.915	-		-		-		-		-	0.000	2.915	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.822	-		-		-		-		-	0.000	0.822	-
Gateways - Mobility	C/FFP	Various : Various	7.107	-		-		-		-		-	0.000	7.107	-
Thin Client Solution - Mobility	C/Various	Various : Various (MDM)	2.154	-		-		-		-		-	0.000	2.154	-
New Field Communications	C/FFP	Various : Various	0.550	-		-		-		-		-	0.000	0.550	-
National Conference Management	MIPR	USAF : Raytheon	4.514	-		-		-		-		-	0.000	4.514	-
IP Enable DRSN	MIPR	USAF : Raytheon	1.562	0.355	Mar 2021	0.355	Mar 2022	-		-		-	Continuing	Continuing	-
HEMP Phone Development	MIPR	USAF : Raytheon	0.869	-		-		-		-		-	0.000	0.869	-
100G Optical	Various	Various : Various	0.337	-		-		-		-		-	0.000	0.337	-
Defense Production Act III Optical Networking	Various	Various : Various	2.666	-		-		-		-		-	0.000	2.666	-
DoD Mobility Capability Service Assurance	C/FFP	Various (JITC, HYPHONI) : Various	2.316	-		-		-		-		-	0.000	2.316	-
System Engineering & Future Technology Support	SS/CPFF	SPAWAR : Charleston	2.420	-		-		-		-		-	0.000	2.420	-
System Engineering Support DMCC/DMUC	C/FFP	BAH : Annapolis Junction MD	4.530	1.449	Feb 2021	1.449	Feb 2022	-		-		-	Continuing	Continuing	-



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DIUx-Mobility APP Vetting and MSM tools (MTD)	MIPR	Zimperium : Dallas TX	2.237	-		-		-		-		-	0.000	2.237	-
MES-C-DMCC Buildout/ VDI	SS/CPFF	APRIVA/SPAWAR : APRIVA/SPAWAR	1.139	1.300	Oct 2020	0.736	Oct 2021	-		-		-	Continuing	Continuing	-
MES-(Unclassified) and MES-(Classified)/NEW Contract	C/FFP	BAH : Annapolis Junction MD	-	-		-		2.369	May 2023	-		2.369	Continuing	Continuing	-
<b>Subtotal</b>			155.705	4.566		4.002		4.314		-		4.314	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IT Support - Mobility	C/FFP	Arieds, LLC : Ft. Meade	2.300	-		-		-		-		-	0.000	2.300	-
NS2 SE Support - Mobility	C/FFP	APPTIS : Ft. Meade	0.311	-		-		-		-		-	0.000	0.311	-
IT Support - Mobility	Various	Various : Various	4.050	1.050	Oct 2020	1.050	Oct 2021	2.241	Dec 2022	-		2.241	Continuing	Continuing	-
PNVC Software enhancements	C/CPFF	General Dynamics : NSA	5.900	-		-		-		-		-	0.000	5.900	-
<b>Subtotal</b>			12.561	1.050		1.050		2.241		-		2.241	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certification Testing	Various	JITC : Various	8.242	-		-		-		-		-	0.000	8.242	-
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	7.143	0.950	Oct 2020	0.950	Oct 2021	0.153	Nov 2022	-		0.153	Continuing	Continuing	-
Integration, Test and Modification - Mobility	Various	Various : Various	7.158	-		-		-		-		-	0.000	7.158	-
DISN Tech Refresh	Various	Various : Various	19.344	3.777	Dec 2020	4.273	Dec 2021	6.298	Nov 2022	-		6.298	Continuing	Continuing	-



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>DRSN</b>																												
DRSN																												
<b>OSS</b>																												
OSS																												
<b>Technology Refresh</b>																												
Technology Refresh																												
DISN Tech Refresh																												
<b>Mobility</b>																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
DoD Mobility Gateways - Architecture Support																												
NIPR Enclave (MDM, MAS)																												
SIPR Enclave (MDM, MAS)																												
TS Enclave (MDM, MAS)																												
MDM & MAS Operational Testing																												
Virtual Desktop Infrastructure (VDI)																												
PNVC																												
DISN Tech Refresh																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>DRSN</b>																												
DRSN																												
<b>OSS</b>																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
--	---	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
OSS																												
<b>Technology Refresh</b>																												
Technology Refresh																												
DISN Tech Refresh																												
<b>Mobility</b>																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
DoD Mobility Gateways - Architecture Support																												
NIPR Enclave (MDM, MAS)																												
SIPR Enclave (MDM, MAS)																												
TS Enclave (MDM, MAS)																												
MDM & MAS Operational Testing																												
Virtual Desktop Infrastructure (VDI)																												
PNVC																												
DISN Tech Refresh																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>DRSN</b>				
DRSN	1	2017	4	2024
<b>OSS</b>				
OSS	1	2017	4	2017
<b>Technology Refresh</b>				
Technology Refresh	1	2015	4	2021
DISN Tech Refresh	1	2017	4	2025
<b>Mobility</b>				
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2017	4	2027
DoD Mobility Gateways - Architecture Support	1	2017	4	2025
NIPR Enclave (MDM, MAS)	1	2017	4	2027
SIPR Enclave (MDM, MAS)	1	2017	4	2027
TS Enclave (MDM, MAS)	1	2017	4	2027
MDM & MAS Operational Testing	1	2017	4	2027
Virtual Desktop Infrastructure (VDI)	4	2018	3	2020
PNVC	4	2018	4	2019
DISN Tech Refresh	1	2019	3	2024

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	82.340	5.392	4.892	5.746	-	5.746	5.437	5.665	5.828	5.947	Continuing	Continuing
T64: <i>Special Projects</i>	82.340	5.392	4.892	5.746	-	5.746	5.437	5.665	5.828	5.947	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Minimum Essential Emergency Communications Network (MEECN) provides the Nuclear Command, Control, and Communications (NC3) Engineer with plans and procedures, systems analysis, operational assessments, systems engineering, and development of concepts of operation and architectures. The NC3 System provides connectivity from the President and the Secretary of Defense through the National Military Command System to nuclear execution forces integral to fighting a "homeland-to-homeland," as well as theater nuclear war. MEECN includes the Emergency Action Message dissemination systems and those systems used for integrated Tactical Warning/Attack Assessment, presidential decision-making conferencing, force report back, re-targeting, force management, and requests for permission to use nuclear weapons. Efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense, military forces, and an informed decision-making linkage between the President, the Secretary of Defense, and the Combatant Commands. MEECN ensures our national leadership has proper command and control of our forces during times of national emergency, up to and including nuclear war.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	5.392	4.892	0.000	-	0.000
Current President's Budget	5.392	4.892	5.746	-	5.746
Total Adjustments	0.000	0.000	5.746	-	5.746
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	5.746	-	5.746

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

This program is Classified.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
T64: <i>Special Projects</i>	82.340	5.392	4.892	5.746	-	5.746	5.437	5.665	5.828	5.947	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The mission is performing classified work. All aspects of this project are classified and require special access. Detailed information on this project is not contained in this document.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Special Projects	5.392	4.892	5.746
<b>Description:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2022 Plans:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2023 Plans:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>			5.746

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Program is classified and exhibit will be provided under a separate cover.





**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency							<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>			<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Classified</b>	
Classified	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Classified</b>	
Classified	

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Classified</b>				
Classified	1	2018	4	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / <i>Information Systems Security Program</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	82.060	6.217	5.707	7.005	-	7.005	8.657	8.412	8.411	8.589	Continuing	Continuing
IA3: <i>Information Systems Security Program</i>	82.060	6.217	5.707	7.005	-	7.005	8.657	8.412	8.411	8.589	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Information Systems Security Program (ISSP) mission focuses on developing Department of Defense (DoD) enterprise solutions to Combatant Commands, Services, and Defense-wide agencies to ensure critical mission execution in the face of cyber attacks. The ISSP ensures that, the network, the computing centers, and core enterprise services will evolve to better support a joint cybersecurity/information assurance model that has common enterprise-scale perimeter defenses and will support a broad range of sharing policies from completely unclassified to tightly-held within a classified community. The ISSP will test and develop active-active defensive capabilities; test and integrate software defined networking and orchestration closed-loop security; perform research, development and engineering of emerging cyber situational awareness technologies; harden the network by providing architecture support, systems engineering and analytical functions for Endpoint and Perimeter defense capabilities; cyber IT infrastructure and automation support to deploy enterprise-wide next generation identity technologies; and develop and evolve an integrated cyber domain security workforce to be on the leading edge of defensive capabilities.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	6.217	5.707	0.000	-	0.000
Current President's Budget	6.217	5.707	7.005	-	7.005
Total Adjustments	0.000	0.000	7.005	-	7.005
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	7.005	-	7.005

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. The increase of \$1.298 in FY2023 is due to increases in engineering and testing contract support.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303140K / Information Systems Security Program				<b>Project (Number/Name)</b> IA3 / Information Systems Security Program			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
IA3: Information Systems Security Program	82.060	6.217	5.707	7.005	-	7.005	8.657	8.412	8.411	8.589	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Information Systems Security Program (ISSP) mission focuses on developing Department of Defense (DoD) enterprise solutions to Combatant Commands, Services, and Defense-wide agencies to ensure critical mission execution in the face of cyber attacks. The ISSP ensures that, the network, the computing centers, and core enterprise services will evolve to better support a joint cybersecurity/information assurance model that has common enterprise-scale perimeter defenses and will support a broad range of sharing policies from completely unclassified to tightly-held within a classified community. The ISSP will test and develop active-active defensive capabilities; test and integrate software defined networking and orchestration closed-loop security; perform research, development and engineering of emerging cyber situational awareness technologies; harden the network by providing architecture support, systems engineering and analytical functions for Endpoint and Perimeter defense capabilities; cyber IT infrastructure and automation support to deploy enterprise-wide next generation identity technologies; and develop and evolve an integrated cyber domain security workforce to be on the leading edge of defensive capabilities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Cyber Innovation and Technology	3.718	0.459	0.081
<p><b>Description:</b> Provide research and development, conduct technology assessments, rapidly produce prototypes using commercial solutions, validate assumptions, and provide empirical data to drive real time enterprise solutions and decisions in assisting DoD requirement owners for enterprise fielding of innovative gap fillers to address cyber capabilities and militarization of commercial information assurance capabilities tactical edge. All project undertaken directly increase information sharing capabilities and assure C2 functionality against a common operating picture. The program will leverage its robust IT infrastructure to develop small prototypes to find cost saving initiatives across the DoD Information Network (DODIN) in an effort to provide the DoD with faster more reliable communications capabilities. These solutions will look to provide enhanced warfighting technology and research development programs improving the protection, survivability, mobility and combat effectiveness of the DoD.</p> <p><b>FY 2022 Plans:</b> Continued assessment, testing, prototype improvement and implementation of DoDCAR (DoD Cybersecurity Analysis and Review processes. This includes portfolio management against threat coverage and the execution of deeper analyses of advisory behaviors within DoD Networks.</p> <p><b>FY 2023 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / <i>Information Systems Security Program</i>	<b>Project (Number/Name)</b> IA3 / <i>Information Systems Security Program</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continued assessment, testing, prototype improvement and implementation of DoDCAR (DoD Cybersecurity Analysis and Review processes. This includes portfolio management against threat coverage and the execution of deeper analyses of advisory behaviors within DoD Networks.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease of -\$0.378 from FY 2022 to FY 2023 is due to reduction in contract support.				
<b>Title:</b> Zero Trust Architecture (ZTA)  <b>Description:</b> Will develop, test, and evaluate the technologies required for the implementation of ZTA.  <b>FY 2022 Plans:</b> To develop, test, and evaluate technologies, identify critical applications on NIPR and begin SIPR development that are required to improve security, and analyze backbone design, gateway, and mobility infrastructure for necessary improvements.  <b>FY 2023 Plans:</b> Continue testing and development of Zero Trust capabilities within new NIPR environments and potentially SIPR environment to improve overall security.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$2.501 from FY 2022 to FY 2023 is due to the increase of software license purchases.		2.499	2.053	4.554
<b>Title:</b> Secure Application Development (DevSecOps) Program  <b>Description:</b> Will provide an enterprise capability for an automated DevSecOps platform that programs can use to rapidly and automatically build, accredit, secure, test, deploy, monitor, and protect newly developed applications.		0.000	-	-
<b>Title:</b> PKI/Software Defined Enterprise (SDE)  <b>Description:</b> Identify, develop and enforce the adoption of software defined technologies to modernize service delivery and cyber operations.  <b>FY 2022 Plans:</b> Develop and enforce the adoption of software defined technologies to modernize service delivery and cyber operations, to ensure the efforts conform to the DISA SDE strategy.  <b>FY 2023 Plans:</b>		-	1.876	0.823

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / Information Systems Security Program	<b>Project (Number/Name)</b> IA3 / Information Systems Security Program

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continue to develop and enforce the adoption of software defined technologies to modernize service delivery and cyber operations, to ensure the efforts conform to the DISA SDE strategy.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease of -\$1.053 from FY 2022 to FY 2023 is due to engineering support reductions.			
<b>Title:</b> License and Support	-	1.319	1.547
<b>Description:</b> ESS will perform proof of concept research for new endpoint security capabilities.			
<b>FY 2022 Plans:</b> Support licenses and engineering support of proof of concept capabilities for endpoint security.			
<b>FY 2023 Plans:</b> ESS will continue to perform proof of concept research for new endpoint security capabilities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.228 from FY 2022 to FY 2023 is due to escalation of labor cost and SW cost.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.217	5.707	7.005

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• O&M, DW: PE 0303140K	56.974	59.237	-	-	-	-	-	-	-	-	Continuing	Continuing
• Procurement, DW: PE 0303140K	4.160	2.214	-	-	-	-	-	-	-	-	Continuing	Continuing

**Remarks**

N/A

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / Information Systems Security Program	<b>Project (Number/Name)</b> IA3 / Information Systems Security Program
--	--	--

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ZND Technology Assessment/Evaluation for email capability Tech Refresh	C/FFP	ASRC Federal : Beltsville, MD	16.705	-		-		-		-		-	0.000	16.705	-
DoD Cyber Security Range (CSR) Virtual Training Environment	C/FFP	ManTech : Fairfax, VA	2.198	-		-		-		-		-	0.000	2.198	-
DoD Cyber Security Range (CSR) Virtual Training Environment - Re-compete	C/FFP	ManTech : Fairfax, VA	1.683	-		-		-		-		-	Continuing	Continuing	-
DoD Endpoint Security Solutions (ESS)	C/FFP	TBD : TBD	-	-		1.319	Jan 2022	1.547	Sep 2023	-		1.547	Continuing	Continuing	-
Cyber HQs Support	C/FFP	Bylight : Fort Meade, MD	18.705	-		-		-		-		-	0.000	18.705	-
Joint Information Operations Range (JIOR) Connection	C/FFP	ManTech : Stafford, VA	0.260	-		-		-		-		-	Continuing	Continuing	-
DISA EA Model Development for Cyber Security and Network Technical Domains, DODCAR Cyber Analysis Tool Development	C/FFP	Various : Various	4.507	0.464	Jan 2021	0.459	Jan 2022	0.081	Jan 2023	-		0.081	Continuing	Continuing	-
Deployment of Blockchain and Next Generation Identity	C/FFP	TBD : TBD	6.000	1.494	Jan 2021	-		-		-		-	Continuing	Continuing	-
Cyber Innovation and Technology	C/FFP	TBD : TBD	5.000	-		-		-		-		-	Continuing	Continuing	-
Identity, Credential, and Access Management (ICAM)	C/FFP	TBD : TBD	27.002	-		-		-		-		-	Continuing	Continuing	-
Sharkseeker	C/FFP	TBD : TBD	-	3.147		1.876	Nov 2021	-		-		-	Continuing	Continuing	-
Zero Trust Architecture (ZTA)	C/FFP	TBD : TBD	-	1.112		2.053	Nov 2021	4.554	Nov 2022	-		4.554	Continuing	Continuing	-



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / Information Systems Security Program	<b>Project (Number/Name)</b> IA3 / Information Systems Security Program

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Secure Application Development (DevSecOps) Program</b>	
Secure Application Development (DevSecOps) Program	
<b>Innovation and Technology</b>	
Block Chain Cyber Innovation Technology Assessment	
Next Gen Identity Tool Suite Cyber Innovation Technology Assessment	
<b>Zero Trust Architecture (ZTA)</b>	
Develop, test, and evaluate the technologies	
<b>Endpoint License and Support</b>	
Develop, test, and evaluate the technologies	
<b>PKI/ Software Defined Enterprise</b>	
Identify, develop and enforce the adoption of software defined technologies	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Secure Application Development (DevSecOps) Program</b>	
Secure Application Development (DevSecOps) Program	
<b>Innovation and Technology</b>	
Block Chain Cyber Innovation Technology Assessment	

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / <i>Information Systems Security Program</i>	<b>Project (Number/Name)</b> IA3 / <i>Information Systems Security Program</i>
--	---	---

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Next Gen Identity Tool Suite Cyber Innovation Technology Assessment																												
<b>Zero Trust Architecture (ZTA)</b>																												
Develop, test, and evaluate the technologies																												
<b>Endpoint License and Support</b>																												
Develop, test, and evaluate the technologies																												
<b>PKI/ Software Defined Enterprise</b>																												
Identify, develop and enforce the adoption of software defined technologies																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303140K / <i>Information Systems Security Program</i>	<b>Project (Number/Name)</b> IA3 / <i>Information Systems Security Program</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Secure Application Development (DevSecOps) Program</b>				
Secure Application Development (DevSecOps) Program	4	2020	4	2021
<b>Innovation and Technology</b>				
Block Chain Cyber Innovation Technology Assessment	3	2020	3	2026
Next Gen Identity Tool Suite Cyber Innovation Technology Assessment	3	2020	3	2026
<b>Zero Trust Architecture (ZTA)</b>				
Develop, test, and evaluate the technologies	4	2021	3	2027
<b>Endpoint License and Support</b>				
Develop, test, and evaluate the technologies	4	2021	3	2027
<b>PKI/ Software Defined Enterprise</b>				
Identify, develop and enforce the adoption of software defined technologies	4	2021	3	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	632.163	73.630	4.150	10.020	-	10.020	5.793	3.532	6.713	12.318	Continuing	Continuing
CC01: <i>Joint Planning and Execution Services (JPES)</i>	632.163	73.630	4.150	10.020	-	10.020	5.793	3.532	6.713	12.318	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Joint Planning & Execution Services (JPES) is a set of critical Joint Command & Control (JC2) Global Force Management (GFM) capabilities that provide mission-enabling information systems for the planning and execution of global military operations. The JPES program consists of two operational systems: 1) Joint Operations Planning and Execution System (JOPES) and 2) Joint Capabilities Requirements Manager (JCRM) and two development efforts: 1) JPES which will modernize JOPES in phase 1 and JCRM in phase 2 and 2) Joint Collaboration Tool (JCT) which will replace legacy Newsgroups.

JOPES is the critical Joint Command and Control (C2) system that provides an automated force planning and execution capability necessary for simultaneous and resource-informed planning activities supporting thousands of operational users across the globe. There is no alternate capability to fulfill the JOPES' mission and there are 16 external systems across the Combatant Commands, Military Services, and Defense Agencies that are dependent on JOPES to perform their force planning and execution activities.

JCRM is a web-based application and database supported by web services enabling the Global Force Management Allocation Process (GFMAP) for CCMDs to draft, staff, store, and submit force requirements for contingency plans, and operations worldwide. JCRM is vital to managing and sourcing complex global force requirements and tracking the distribution of US military forces among the CCMDs. There is no alternate capability to fulfill the JCRM mission.

JCT serves as a secure messaging system that CCMDs, Military Services and Lift Providers utilize to collaborate and communicate with each other to source, validate and support requirements.

Not funding JPES places the planning and execution of military operations at significant risk of mission failure.

Note: GCCS-J transitioned from this BA/PE to BA-8/PE0303150K with the FY21 PB. Prior to that time PE included both GCCS-J, JOPES, and JPES.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	73.630	4.150	0.000	-	0.000
Current President's Budget	73.630	4.150	10.020	-	10.020
Total Adjustments	0.000	0.000	10.020	-	10.020
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	10.020	-	10.020

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The FY 2023 increase of \$5.870 is due to modernization of JPES capability.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>				<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CC01: <i>Joint Planning and Execution Services (JPES)</i>	632.163	73.630	4.150	10.020	-	10.020	5.793	3.532	6.713	12.318	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Joint Planning & Execution Services (JPES) is a set of critical Joint Command & Control (JC2) Global Force Management (GFM) capabilities that provide mission-enabling information systems for the planning and execution of global military operations. The JPES program consists of two operational systems: 1) Joint Operations Planning and Execution System (JOPES) and 2) Joint Capabilities Requirements Manager (JCRM) and two development efforts: 1) JPES which will modernize JOPES in phase 1 and JCRM in phase 2 and 2) Joint Collaboration Tool (JCT) which will replace legacy Newsgroups.

JOPES is the critical Joint Command and Control (C2) system that provides an automated force planning and execution capability necessary for simultaneous and resource-informed planning activities supporting thousands of operational users across the globe. There is no alternate capability to fulfill the JOPES' mission and there are 16 external systems across the Combatant Commands, Military Services, and Defense Agencies that are dependent on JOPES to perform their force planning and execution activities.

JCRM is a web-based application and database supported by web services enabling the Global Force Management Allocation Process (GFMAP) for CCMDs to draft, staff, store, and submit force requirements for contingency plans, and operations worldwide. JCRM is vital to managing and sourcing complex global force requirements and tracking the distribution of US military forces among the CCMDs. There is no alternate capability to fulfill the JCRM mission.

JCT serves as a secure messaging system that CCMDs, Military Services and Lift Providers utilize to collaborate and communicate with each other to source, validate and support requirements.

Not funding JPES places the planning and execution of military operations at significant risk of mission failure.

Note: GCCS-J transitioned from this BA/PE to BA-8/PE0303150K with the FY21 PB. Prior to that time PE included both GCCS-J, JOPES, and JPES.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Joint Planning and Execution Services (JPES)	73.630	4.150	10.020
<b>Description:</b> JPES is a collection of capabilities supporting joint policies, processes, procedures, and reporting structures, that are supported by communications and information technology used by the Joint Planning and Execution Community (JPEC). JPEC uses these capabilities to monitor, plan, and execute: mobilization, deployment, employment, sustainment, redeployment, and demobilization activities associated with joint operations.			
<b>FY 2022 Plans:</b> JPES PMO will continue to meet the JS approved and prioritized functional requirements to support Global Force Management (GFM). We will continue JPES solution development to sunset legacy system; continue sustainment of legacy system including			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
cybersecurity and Commercial Off the Shelf (COTS) end-of-life upgrades, continue sustainment of Joint Capabilities Requirements Manager (JCRM) including cybersecurity and COTS end-of-life upgrades, and continue integrating additional external partners requesting GFM data.			
<b><i>FY 2023 Plans:</i></b> JPES PMO will continue to meet the JS approved and prioritized functional requirements to support Global Force Management (GFM). The development of a modernized JPES solution will continue to sunset JOPES NLT 3QFY23; the sustainment of the operational system JOPES including cybersecurity enhancements and Commercial Off the Shelf (COTS) end-of-life upgrades as well as the continued sustainment of the operational system JCRM to also include cybersecurity enhancements and COTS end-of-life upgrades, the deployment of a fully operational JCT and continue integrating additional external partners requesting GFM data.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase of \$5.870 from FY 2022 to FY 2023 is the result of increase to modernized JPES capability.			
<b>Accomplishments/Planned Programs Subtotals</b>	73.630	4.150	10.020

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0303150K: <i>Operation &amp; Maintenance, Defense-Wide</i>	44.507	45.269	15.469	-	15.469	-	-	-	-	-	Continuing Continuing

**Remarks**

**D. Acquisition Strategy**

Use of performance-based contract awards is maximized while use of Time and Material contracts is minimized to those providing programmatic support versus software development, integration, or testing. All development, integration, and migration efforts within the portfolio are primarily supported through Cost Reimbursable Task Orders issued under competitively awarded contracts and Firm-Fixed Priced contracts for systems in sustainment that have clearly defined and stable requirements. Acquisition Strategies are structured to retain contractors capable of satisfying cost, schedule, and performance objectives. Contract awards incorporate provisions requiring contractors to establish and manage specific earned value data. This strategy mitigates risk by requiring monthly Contract Performance Reviews (CPRs) and utilizing award fee contracts where appropriate to incentivize performance. JPES applies formal acquisition rigor to include reporting requirements, as appropriate, by acquisition program designation.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	C/CPFF	NGMS : Reston, VA	20.289	-		-		-		-		-	0.000	20.289	-
Product Development 2	FFRDC	MITRE : McLean, VA	7.077	-		-		-		-		-	0.000	7.077	-
Product Development 3	SS/FFP	Dynamic Systems : Los Angeles, CA	3.189	-		-		-		-		-	0.000	3.189	-
Product Development 4	C/CPFF	Pragmatics : McLean, VA	31.239	-		-		-		-		-	0.000	31.239	-
Product Development 6	C/CPIF	BAH : McLean, VA	3.369	-		-		-		-		-	0.000	3.369	-
Product Development 7	C/CPIF	JPES Framework : Various	20.141	-		-		-		-		-	0.000	20.141	-
Product Development 8	C/CPFF	RTB Development : Various	13.116	-		-		-		-		-	0.000	13.116	-
Product Development 9	C/CPFF	IGS Development : Various	12.398	-		-		-		-		-	0.000	12.398	-
Product Development 10	C/CPFF	SAIC : Falls Church, VA	4.826	-		-		-		-		-	0.000	4.826	-
Product Development 11	MIPR	SSC : San Diego, CA	13.317	-		-		-		-		-	0.000	13.317	-
Product Development 12	C/CPFF	NGMS : Reston, VA	67.014	-		-		-		-		-	0.000	67.014	-
Product Development 13	MIPR	NGIT : Various	1.772	-		-		-		-		-	0.000	1.772	-
Product Development 14	C/CPFF	NGMS : Reston, VA	88.291	-		-		-		-		-	0.000	88.291	-
Product Development 15	C/CPIF	Booz Allen Hamilton : McLean, VA	3.283	-		-		-		-		-	0.000	3.283	-
Product Development 16	C/CPFF	Booz Allen Hamilton : Various	3.685	-		-		-		-		-	0.000	3.685	-
Product Development 17	C/CPAF	Booz Allen Hamilton : Falls Church, VA	1.229	-		-		-		-		-	0.000	1.229	-
Product Development 18	C/CPAF	AB Floyd : Alexandria, VA	12.477	-		-		-		-		-	0.000	12.477	-
Product Development 19	C/CPAF	Femme Comp Inc : Chantilly, VA	7.249	-		-		-		-		-	0.000	7.249	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / Global Command and Control System	<b>Project (Number/Name)</b> CC01 / Joint Planning and Execution Services (JPES)
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 20	C/CPFF	SAIC : Falls Church, VA	5.876	-		-		-		-		-	0.000	5.876	-
Product Development 21	C/CPIF	Booz Allen Hamilton : McLean, VA	5.865	-		-		-		-		-	0.000	5.865	-
Product Development 22	MIPR	JDISS : Various	6.039	-		-		-		-		-	0.000	6.039	-
Product Development 23	C/FFP	NGMS : Reston, VA	4.790	-		-		-		-		-	0.000	4.790	-
Product Development 24	MIPR	SPAWAR : Charleston, SC	13.156	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 25	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS : Various	5.710	-		-		-		-		-	0.000	5.710	-
Product Development 26	C/CPAF	Tactical 3-D COP : Various	3.200	-		-		-		-		-	0.000	3.200	-
Product Development 27	SS/FFP	JITC : Various	20.400	-		-		-		-		-	0.000	20.400	-
Product Development 28	C/CPFF	JCRM : McLean, VA	8.600	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 30	C/CPFF	Systems Engineering and Integration : Various	14.030	-		-		-		-		-	0.000	14.030	-
Product Development 31	C/Various	GCCS-J : Various	5.367	-		-		-		-		-	0.000	5.367	-
Product Development 32	C/CPFF	CRSA/GDIT LLC : Chantilly, VA	14.193	-		-		-		-		-	0.000	14.193	-
Product Development 33	C/FFP	Interimage Inc : Arlington, VA	6.179	72.181	Mar 2021	-		-		-		-	Continuing	Continuing	Continuing
Engineering Services and Integration 29	SS/FFP	GCCS-J : Various	6.782	-		-		-		-		-	6.782	13.564	-
I3 Engineering Services & SW Development	C/TBD	NGIT : Various	1.811	-		-		-		-		-	0.000	1.811	-
Product Development 29	C/FFP	JOPES modernization : TBD	10.248	-		-		-		-		-	Continuing	Continuing	Continuing

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / Global Command and Control System	<b>Project (Number/Name)</b> CC01 / Joint Planning and Execution Services (JPES)
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 34	C/CPFF	JPES Solution : Falls Church, VA	9.942	0.307	Jun 2021	2.783	Jun 2022	6.671	Dec 2022	-		6.671	Continuing	Continuing	Continuing
Product Development 35	C/CPFF	Leidos : Gaithersburg, MD	0.307	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development	C/CPFF	GCCS-JE OTA : McLean, VA	25.292	-		-		-		-		-	0.000	25.292	-
Product Development 37	C/CPFF	Leidos OTA : McLean, VA	10.134	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 38	C/CPFF	GCCS-J : Various	11.801	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 39	C/CPFF	Bluestone Logic : McLean, VA	1.499	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 40	C/CPFF	C2 Systems Engineering : TBD	3.563	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 41	C/CPFF	Tapestry : Chambersburg, PA	3.048	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 42	C/CPFF	Leidos : McLean, VA	0.670	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 36	C/CPFF	TBD : C2 Systems Engineering	0.179	0.442	Aug 2021	0.468	Aug 2022	1.145	Sep 2023	-		1.145	Continuing	Continuing	Continuing
<b>Subtotal</b>			512.642	72.930		3.251		7.816		-		7.816	Continuing	Continuing	N/A

**Remarks**  
Note: GCCS-J transitioned from this BA/PE to BA-8/PE0303150K with the FY21 PB. Prior to that time PE included both GCCS-J, JOPES, and JPES.

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support 1	C/T&M	Oracle : Various	1.003	-		-		-		-		-	0.000	1.003	-
Support 2	C/CPFF	JC2 Common Interface : Various	4.808	-		-		-		-		-	0.000	4.808	-
Support Costs - Engineering Support 3	FFRDC	MITRE : Various	1.662	-		-		-		-		-	0.000	1.662	Continuing

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>
--	--	--

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support Costs - Engineering Support 4	C/CPFF	Pragmatics : McLean, VA	4.141	-		-		-		-		-	0.000	4.141	-
Support Costs - Engineering Support 5	C/CPFF	IPA : College Park, MD	0.283	-		-		-		-		-	0.000	0.283	-
Support Cost 6	C/FFP	STA : Falls Church, VA	2.772	-		-		-		-		-	0.000	2.772	-
Support Costs	C/CPFF	GCCS-J : Various	4.557	-		-		-		-		-	0.000	4.557	-
Support Cost 7	C/FFP	Pragmatics : McLean, VA	3.564	-		-		-		-		-	0.000	3.564	-
<b>Subtotal</b>			22.790	-		-		-		-		-	0.000	22.790	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 1	C/CPFF	SAIC : Falls Church, VA	0.744	-		-		-		-		-	0.000	0.744	-
Test & Evaluation 2	MIPR	JITC : Ft. Huachuca, AZ	34.676	-		-		-		-		-	0.000	34.676	Continuing
Test & Evaluation 3	MIPR	DIA : Various	9.733	-		-		-		-		-	0.000	9.733	-
Test & Evaluation 4	MIPR	DAA : Various	5.554	-		-		-		-		-	0.000	5.554	-
Test & Evaluation 5	C/CPFF	SAIC : Falls Church, VA	9.681	-		-		-		-		-	0.000	9.681	-
Test & Evaluation 6	C/CPAF	SAIC : Falls Church, VA	23.133	-		-		-		-		-	0.000	23.133	-
Test & Evaluation 7	C/CPFF	Pragmatics : McLean, VA	0.308	-		-		-		-		-	0.000	0.308	-
Test & Evaluation 8	MIPR	JITC : Various	0.005	-		-		-		-		-	0.000	0.005	-
Test & Evaluation 9	MIPR	JITC : Various	0.897	-		-		-		-		-	0.000	0.897	-
Test & Evaluation 10	MIPR	DISA FSO : Various	1.059	-		-		-		-		-	0.000	1.059	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>
--	--	--

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 11	MIPR	TEMC Test Support : Various	0.229	-		-		-		-		-	0.000	0.229	-
Test & Evaluation 12	MIPR	DISA TEMC : Falls Church, VA	0.971	-		-		-		-		-	0.000	0.971	-
Test & Evaluation 13	MIPR	STRATCOM : Offut, NE	1.155	-		-		-		-		-	0.000	1.155	-
Test & Evaluation 14	MIPR	DISA FSO : Falls Church, VA	1.200	-		-		-		-		-	0.000	1.200	-
Test & Evaluation 15	C/CPFF	TQI : Falls Church, VA	1.698	-		-		-		-		-	0.000	1.698	-
Test & Evaluation 16	C/CPFF	TQI : Falls Church, VA	0.494	-		-		-		-		-	0.000	0.494	-
Test & Evaluation 17	MIPR	Slidell : Various	0.436	-		-		-		-		-	0.000	0.436	-
Test & Evaluation 19	C/CPFF	NextGen Federal Systems LLC : Morgantown, WV	0.999	0.700	Aug 2021	0.899	Aug 2022	2.204	Aug 2023	-		2.204	Continuing	Continuing	-
<b>Subtotal</b>			92.972	0.700		0.899		2.204		-		2.204	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	MIPR	SSC Atlantic : Charleston, SC	3.759	-		-		-		-		-	0.000	3.759	-
<b>Subtotal</b>			3.759	-		-		-		-		-	0.000	3.759	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		632.163	73.630	4.150	10.020	-	10.020	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>System Design and Testing</b>																												
System Design	██████████																											
System Design and Testing	████████████████████																											
<b>Operational Testing and Evaluation</b>																												
Operational Testing and Evaluation																												
<b>Deployment and Sunset of Legacy System</b>																												
Deployment and Sunset of Legacy System																												



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Joint Planning and Execution Services (JPES)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>System Design and Testing</i></b>				
System Design	1	2021	1	2022
System Design and Testing	2	2021	1	2023
<b><i>Operational Testing and Evaluation</i></b>				
Operational Testing and Evaluation	2	2023	2	2023
<b><i>Deployment and Sunset of Legacy System</i></b>				
Deployment and Sunset of Legacy System	3	2023	3	2023

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	217.602	18.123	19.302	19.708	-	19.708	36.730	26.616	21.618	16.702	Continuing	Continuing
JS1: <i>Joint Spectrum Center</i>	217.602	18.123	19.302	19.708	-	19.708	36.730	26.616	21.618	16.702	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Spectrum Organization (DSO) provides a full array of electromagnetic spectrum services and capabilities, ranging from short notice on-the-ground operational support at the forward edge, to long range planning in pursuit of national strategic objectives. These services/capabilities are in direct support of Combatant Commanders, the Department of Defense (DoD) Chief Information Officer, Military Services, and Defense Agencies. The DSO is the focal point for electromagnetic spectrum analysis and the development of integrated spectrum plans and strategies to address current and future needs for DoD spectrum access. In addition, DSO serves as DoD's spectrum advocate at national and international forums and conducts extensive outreach to both industry and government. DSO also implements enterprise spectrum management capabilities to enhance spectrum efficiency and agility to improve spectrum-dependent capabilities in support of United States and Coalition operations. This includes acquiring, implementing and sustaining the Global Electromagnetic Spectrum Information System (GEMSIS) which provides an integrated catalog of joint net-centric spectrum management tools and services. Electromagnetic Spectrum Management enables information dominance through effective spectrum operations.

The FY23 funding request was reduced by  $-\$ (6.742)$  million to account for the availability of prior year execution balances.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	18.123	19.302	0.000	-	0.000
Current President's Budget	18.123	19.302	19.708	-	19.708
Total Adjustments	0.000	0.000	19.708	-	19.708
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	19.708	-	19.708

**Change Summary Explanation**

FY2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. No significant program changes.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / Defense Spectrum Organization	<b>Project (Number/Name)</b> JS1 / Joint Spectrum Center
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JS1: Joint Spectrum Center	217.602	18.123	19.302	19.708	-	19.708	36.730	26.616	21.618	16.702	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Joint Spectrum Center (JSC), which is a division of Defense Spectrum Organization (DSO), designs, develops, and maintains Department of Defense (DoD) automated spectrum management systems, evaluation tools, and databases. The databases are the prime sources of information for DoD use of the electromagnetic (EM) spectrum. The JSC provides technical measurement and analysis in support of DoD spectrum policy decisions to ensure the development, acquisition, and operational deployment of systems are compatible with other spectrum dependent systems operating within the same EM environment (EME). Additional efforts focus on improving future warfighter EM spectrum utilization through technological innovation, and influencing research and development emerging technology efforts.

Improved spectrum support includes the Global Electromagnetic Spectrum Information System (GEMSIS), a net centric capability that will provide commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Advanced Spectrum Tools	0.000	0.000	0.000
<b>Description:</b> The Joint Spectrum Data Repository and Tools program supports development of spectrum management tools, spectrum modeling and simulation capabilities, spectrum database development, and spectrum data transformation and standardization. This program provides the Combatant Commands (COCOMs) and Military Services with the spectrum management tools and associated databases to manage spectrum resources at the strategic and operational level. It also provides the DoD acquisition community with analytical tools to conduct Electromagnetic Environmental Effects (E3) analyses and Spectrum Supportability Risk Assessments (SSRA).			
<b>FY 2022 Plans:</b> N/A			
<b>FY 2023 Plans:</b> N/A			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> N/A			
<b>Title:</b> DoD Electromagnetic Environmental Effects (E3) Program	2.566	3.074	3.431

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

**Description:** The DoD E3 Program supports the Joint Capabilities Integration and Development System (JCIDS) process and the DoD acquisition process to ensure that E3 control and spectrum supportability are incorporated into the development, testing, and procurement of information technology and National Security Systems. The E3 Program also supports the development of the Joint Ordnance E3 Risk Assessment Database (JOERAD) and Hazards of Electromagnetic Radiation to Ordnance (HERO) electromagnetic environmental effects surveys in support of the COCOMs and Joint Task Forces. JOERAD develops algorithms and provides analytical capabilities to perform real-time risk assessments to evaluate platform/system safety and identify equipment limitations in the operational EM environment. JOERAD enables operators to make critical decisions about the hazards associated with the use of ordnance within complex EM environments. A SSRA is performed by program managers and materiel developers on all programs that are acquiring or incorporating spectrum-dependent systems or equipment per DoDI 4650.1. These assessments encompassed regulatory, technical, and operational spectrum and E3 issues and associated risks.

**FY 2022 Plans:**

Will continue to conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/ Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance RF safety requirements. Will update MIL-HDBK-235, "EME Profiles" and develop EME profiles to address blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 Integrated Product Team (IPT) Meetings. Will provide technical support to DoD CIO, the Joint Staff, and other DoD Components on E3, spectrum, hazards of EM radiation matters. Will review JCIDS and ISP acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University.

**FY 2023 Plans:**

Will continue to conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/ Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance RF safety requirements. Will update MIL-HDBK-235, "EME Profiles" and develop EME profiles to address blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 Integrated Product Team (IPT) Meetings. Will provide technical support to DoD CIO, the Joint Staff, and other DoD Components on E3, spectrum, hazards of EM radiation matters. Will review JCIDS and ISP acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University.

**FY 2022 to FY 2023 Increase/Decrease Statement:**

FY 2021	FY 2022	FY 2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>The increase of \$0.357 from FY 2022 to FY 2023 is due to a projected increase in number of forward deployed base HERO surveys for CCMDs/Services and any CONUS based emitter surveys for ordnance safety database validation and an increase in the number of E3 and SS Training.</p> <p><b>Title:</b> Emerging Spectrum Technologies (EST)</p> <p><b>Description:</b> DSO has the responsibility to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization through technological innovation. The goal of the EST program is to identify the opportunities and risks associated with emerging spectrum-related technologies in the early stages of the technology development, influence and lead technology development in order to maximize DoD spectrum utilization, and ensure that spectrum policies incorporate optimal technology to meet DoD mission requirements. Within EST there is an increased focus on Dynamic Spectrum Access (DSA). DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements.</p> <p><b>FY 2022 Plans:</b> N/A</p> <p><b>FY 2023 Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> N/A</p>	0.000	0.000	0.000
<p><b>Title:</b> Global Electromagnetic Spectrum Information System (GEMSIS)</p> <p><b>Description:</b> The GEMSIS is a net centric capability that will provide operational commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations.</p> <p><b>FY 2022 Plans:</b> Will continue (SXXI) Legacy, E2ESS, and JSDR maintenance and version releases .</p> <p><b>FY 2023 Plans:</b> DSO will continue to development version releases for Joint Spectrum Data Repository (JSDR) tool.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>	14.659	0.751	0.598

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The decrease of -\$0.153 from FY 2022 to FY 2023 is due to the decrease for JSDR version release updates.			
<p><b>Title:</b> Electromagnetic Battlefield Management (EMBM) (C2 Capabilities/Data Interface&amp;Visualization, EW Planning/Mgt Tool)</p> <p><b>Description:</b> The Electromagnetic Battle Management (EMBM) mission capability responds to a Department of Defense (DoD) Electronic Warfare (EW) Strategy objective to field advanced EMBM capabilities and to a DoD Electromagnetic Spectrum Strategy goal to increase the agility of DoD electromagnetic spectrum (EMS) operations by developing the capabilities to preform near-real-time EMS operations (EMSO). As part of planning, resourcing, implementing and assessing Joint Electromagnetic Spectrum Operations (JEMSO), an EMBM technical solution will provide a secure and globally connected suite of dynamic tools to provide situational awareness, command and control (C2), decision support and training. The system is planned to provide a range of capabilities that will improve upon existing software applications useful for JEMSO and access information from other related operational systems to provide a long-term solution for operational EMS planning, execution and assessment capabilities.</p> <p><b>FY 2022 Plans:</b> DSO will continue to develop the Electromagnetic Battlespace Management (EMBM) mission capability IAW DoD's Electromagnetic Spectrum Strategy goal to increase the agility of DoD spectrum operations. Will continue to develop new C2 Capabilites, Data Interface &amp; Visualization requirements, and the EW planning and management tool.</p> <p><b>FY 2023 Plans:</b> DSO will continue to develop the Electromagnetic Battlespace Management (EMBM) mission capability IAW DoD's Electromagnetic Spectrum Strategy goal to increase the agility of DoD spectrum operations. Will continue to develop new C2 Capabilites, Data Interface &amp; Visualization requirements, and the EW planning and management tool.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$0.693 from FY 2022 to FY 2023 is due to an increase of efforts in the development of C2 capabilities.</p>	0.000	12.620	13.313
<p><b>Title:</b> New Spectrum Paradigms</p> <p><b>Description:</b> DSO new spectrum paradigms is to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization through technological innovation. The goal of the EST program is to identify the opportunities and risks associated with emerging spectrum-related technologies in the early stages of the technology development, influence and lead technology development in order to maximize DoD spectrum utilization, and ensure that spectrum policies incorporate optimal technology to meet DoD mission requirements. Within EST there is an increased focus on Dynamic Spectrum Access (DSA). DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements. DSO has the responsibility to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization</p>	0.898	2.857	2.366

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

through technological innovation. The goal of the EST program is to identify the opportunities and risks associated with emerging spectrum-related technologies in the early stages of the technology development, influence and lead technology development in order to maximize DoD spectrum utilization, and ensure that spectrum policies incorporate optimal technology to meet DoD mission requirements. Within EST there is an increased focus on Dynamic Spectrum Access (DSA). DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements. The Joint Spectrum Data Repository and Tools program supports development of spectrum management tools, spectrum modeling and simulation capabilities, spectrum database development, and spectrum data transformation and standardization. This program provides the Combatant Commands (COCOMs) and Military Services with the spectrum management tools and associated databases to manage spectrum resources at the strategic and operational level. It also provides the DoD acquisition community with analytical tools to conduct Electromagnetic Environmental Effects (E3) analyses and Spectrum Supportability Risk Assessments (SSRA).

FY 2021	FY 2022	FY 2023

**FY 2022 Plans:**

Will continue to make enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools. Will continue collaboration efforts with the Science and Technology community (including ASDR&E, Service Labs and DARPA) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Continue to develop initiatives that include the roadmap, standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations.

**FY 2023 Plans:**

Will continue to make enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools. Will continue collaboration efforts with the Science and Technology community (including ASDR&E, Service Labs and DARPA) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Continue to develop initiatives that include the roadmap, standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations.

**FY 2022 to FY 2023 Increase/Decrease Statement:**



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The decrease of -\$0.491 from FY 2022 to FY 2023 is due to reduction in number of prototype initiatives for Spectrum Operations.			
<b>Accomplishments/Planned Programs Subtotals</b>	18.123	19.302	19.708

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/PE 0303153K: O&M, DW	34.902	35.743	31.023	-	31.023	-	-	-	-	-	Continuing Continuing

**Remarks**

**D. Acquisition Strategy**

Engineering support services are provided by the use of a contract. Competition is being used under existing Indefinite Delivery Indefinite Quantity (IDIQ) contracts. Task orders will be a mix of Firm Fixed Price (FFP) and Cost Plus Fixed Fee (CPFF) as dictated by specific tasks to be accomplished.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / Defense Spectrum Organization	<b>Project (Number/Name)</b> JS1 / Joint Spectrum Center
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Technical Engineering Services 1	C/FFP	Multi : Various	188.118	8.181	Nov 2020	9.786	Apr 2022	10.070	Jan 2023	-		10.070	Continuing	Continuing	Continuing
Technical Engineering Services 2	MIPR	Various : Various	17.783	9.578	Oct 2020	9.152	Nov 2021	9.143	Nov 2022	-		9.143	Continuing	Continuing	Continuing
<b>Subtotal</b>			205.901	17.759		18.938		19.213		-		19.213	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	MIPR	JITC : Ft. Huachuca	2.312	-		-		-		-		-	0.000	2.312	-
<b>Subtotal</b>			2.312	-		-		-		-		-	0.000	2.312	N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	FFRDC	MITRE : Ft. Monmouth, NJ	9.389	0.364	Nov 2020	0.364	Nov 2021	0.495	Nov 2021	-		0.495	Continuing	Continuing	Continuing
<b>Subtotal</b>			9.389	0.364		0.364		0.495		-		0.495	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		217.602	18.123	19.302	19.708	-	19.708	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Joint Spectrum Center</b>																												
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases																												
JOERAD Releases																												
Emerging Spectrum Technology Research Projects																												
Spectrum Data Sharing Capability Deployments																												
Increment Two GEMISIS																												
E3 Program Outputs																												
EMBM SA Capability																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Joint Spectrum Center</b>																												
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases																												
JOERAD Releases																												
Emerging Spectrum Technology Research Projects																												
Spectrum Data Sharing Capability Deployments																												
Increment Two GEMISIS																												
E3 Program Outputs																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
EMBM SA Capability																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Joint Spectrum Center</b>				
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases	3	2017	4	2025
JOERAD Releases	3	2017	4	2025
Emerging Spectrum Technology Research Projects	3	2017	4	2025
Spectrum Data Sharing Capability Deployments	3	2017	4	2025
Increment Two GEMISIS	1	2017	4	2019
E3 Program Outputs	1	2017	4	2026
EMBM SA Capability	2	2020	4	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303167K / <i>Pre-Auctioned Spectrum Relocation Fund</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1.258	0.247	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
JS1: <i>Pre-Auctioned Spectrum Relocation Fund</i>	1.258	0.247	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

**A. Mission Description and Budget Item Justification**

Funding supports Pre-Auctioned Spectrum relocation and sharing activities.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2021</u></b>	<b><u>FY 2022</u></b>	<b><u>FY 2023 Base</u></b>	<b><u>FY 2023 OCO</u></b>	<b><u>FY 2023 Total</u></b>
Previous President's Budget	0.247	0.000	0.000	-	0.000
Current President's Budget	0.247	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

No statement required.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 I 7					<b>R-1 Program Element (Number/Name)</b> PE 0303167K I Pre-Auctioned Spectrum Relocation Fund				<b>Project (Number/Name)</b> JS1 I Pre-Auctioned Spectrum Relocation Fund			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JS1: Pre-Auctioned Spectrum Relocation Fund	1.258	0.247	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Funding supports Pre-Auctioned Spectrum relocation and sharing activities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Pre-Auctioned Spectrum Relocation Fund	0.247	-	-
<b>Description:</b> Funding supports Pre-Auctioned Spectrum relocation and sharing activities			
<b>Accomplishments/Planned Programs Subtotals</b>	0.247	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A





**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency							<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0303167K / Pre-Auctioned Spectrum Relocation Fund				<b>Project (Number/Name)</b> JS1 / Pre-Auctioned Spectrum Relocation Fund			

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Auctioned Spectrum Relocation Fund</b>	
Support pre-auction spectrum relocation activities	██████████

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Auctioned Spectrum Relocation Fund</b>	
Support pre-auction spectrum relocation activities	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303167K / <i>Pre-Auctioned Spectrum Relocation Fund</i>	<b>Project (Number/Name)</b> JS1 / <i>Pre-Auctioned Spectrum Relocation Fund</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Auctioned Spectrum Relocation Fund</i></b>				
Support pre-auction spectrum relocation activities	1	2019	4	2019

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303228K I <i>Joint Information Environment</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	31.865	12.433	9.342	0.000	-	0.000	1.476	0.984	0.000	0.000	Continuing	Continuing
JE1: <i>Joint Regional Security Stacks</i>	31.865	12.433	9.342	0.000	-	0.000	1.476	0.984	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Joint Information Environment (JIE) construct is a consolidated secure and defensible environment across Department of Defense (DoD). This is comprised of unified, consolidated and shared information technology (IT) infrastructure, enterprise services, and standardized security architectures throughout the Department of Defense Information Network (DODIN) to achieve full spectrum superiority, improve mission effectiveness, increase security and realize IT efficiencies.

The target objective state of JIE is a DODIN that optimizes the use of DoD's IT assets from the administrative and operational planning at the Pentagon to the tactical edge; to include our mission partners through converging communications, computing, enterprise services, and defense of the DODIN that can be leveraged for all Department missions.

When implemented, JIE will reduce DoD's Total Cost of Ownership (TCO), improved security by reducing the attack surface of our networks, and enable Combatant Commands/Services/Agencies (CC/S/A) to more efficiently access information to perform their missions from any authorized IT device, any time, from anywhere in the world.

The FY23 funding request was reduced by  $-\$(2.460)$  million to account for the availability of prior year execution balances.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	12.433	9.342	0.000	0.000	0.000
Current President's Budget	12.433	9.342	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Budget Year Adjustment	0.000	-	0.000	-	0.000

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303228K <i>I Joint Information Environment</i>
---	--

**Change Summary Explanation**

The reduction in FY 2023 is due to rephrasing for under-execution.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303228K / Joint Information Environment				<b>Project (Number/Name)</b> JE 1 / Joint Regional Security Stacks			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
JE1: Joint Regional Security Stacks	31.865	12.433	9.342	0.000	-	0.000	1.476	0.984	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Joint Regional Security Stack (JRSS) is a joint Department of Defense (DoD) security architecture deployed regionally throughout the world. Each of the 23 Non-Secure Internet Protocol Router (NIPR) and 25 Secure Internet Protocol Router (SIPR) stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment. The JRSS Management System (JMS) is the management and operational control suite/capability for the JRSS. While the JMS is treated as a related effort, it requires its own experience and evaluation strategy as the JMS is a selection of best of breed capabilities. The JMS is a system-of-systems designed to centralize and enhance the management of the JRSS components and achieve economies of scale by using DoD common suites/infrastructure. The savings are realized by coupling the JRSS and JMS. The JRSS collapses replicated IT security functionality for all DoD components into relatively few regionally located stacks. The JMS provides Centralized Network Management of the JRSS with a standard interoperable set of capabilities across DoD. JMS provides visibility and control over network transport and associated security systems. It enables monitoring and analysis of relevant fault and performance data to determine the impact on current operations and trend analysis. This centralized capability allows standardization of policies, procedures and configurations of critical network transport assets. The JMS enables DoD Components to maintain Title 10 required management and visibility of their IT security while providing high level visibility to Cyber Command (CYBERCOM). Cyber Operations can take proactive actions to ensure the uninterrupted availability and protection of system and network information.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Joint Regional Security Stacks	12.433	9.342	-
<p><b>Description:</b> The Joint Regional Security Stack (JRSS) is a joint DoD security architecture deployed regionally throughout the world. Each of the 23 NIPR and 25 SIPR stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment.</p> <p><b>FY 2022 Plans:</b> Will provide integration, testing, and development of JRSS/JMS hardware/software to support tech refresh of end-of-support/end-of-life appliances. Support pathfinder efforts associated with JRSS optimization and evolution.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / <i>Joint Information Environm ent</i>	<b>Project (Number/Name)</b> JE1 / <i>Joint Regional Security Stacks</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The decrease from FY 2022 to FY 2023 is due to rephasing for under execution.			
<b>Accomplishments/Planned Programs Subtotals</b>	12.433	9.342	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / Joint Information Environm ent	<b>Project (Number/Name)</b> JE 1 / Joint Regional Security Stacks
--	---	---

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certification Testing	Various	Various : Various	1.532	-		-		-		-		-	0.000	1.532	-
Test and Evaluation Support	Various	JITC : Various	2.568	1.176	Oct 2021	0.550	Oct 2022	-		-		-	Continuing	Continuing	-
Integration Test and Modification	Various	Multiple : Various	2.784	1.358	Dec 2020	0.750	Dec 2021	-		-		-	Continuing	Continuing	-
Tech Refresh/Functionality Testing	Various	Multiple : Various	6.089	1.376	Dec 2020	1.245	Dec 2021	-		-		-	Continuing	Continuing	-
Analytic Development & Testing (CSAAC)	Various	Multiple : Various	4.820	-		-		-		-		-	0.000	4.820	-
JRSS Integration Test and Acceptance Support	Various	Multiple : Various	2.595	8.523	Dec 2020	6.797	Jan 2022	-		-		-	Continuing	Continuing	-
JRSS Integration Test and Acceptance Support_2	Various	Multiple : Various	6.309	-		-		-		-		-	Continuing	Continuing	-
JRSS Integration Test and Acceptance Support_3	Various	Multiple : Various	5.168	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			31.865	12.433		9.342		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	31.865	12.433	9.342	-	-	-	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / <i>Joint Information Environm ent</i>	<b>Project (Number/Name)</b> JE1 / <i>Joint Regional Security Stacks</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<i>JIE</i>	
JIE	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<i>JIE</i>	
JIE	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / <i>Joint Information Environm ent</i>	<b>Project (Number/Name)</b> JE1 / <i>Joint Regional Security Stacks</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>JIE</i>				
JIE	1	2017	4	2022

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303267K / <i>Auctioned Spectrum Relocation Fund</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	40.404	6.858	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
JS1: <i>Auctioned Spectrum Relocation Fund</i>	40.404	6.858	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

**A. Mission Description and Budget Item Justification**

Funding supports Spectrum relocation and sharing activities.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	6.858	0.000	0.000	-	0.000
Current President's Budget	6.858	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

No statement required.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303267K / Auctioned Spectrum Relocation Fund	<b>Project (Number/Name)</b> JS1 / Auctioned Spectrum Relocation Fund
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JS1: Auctioned Spectrum Relocation Fund	40.404	6.858	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

Funding supports Spectrum relocation and sharing activities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Auctioned Spectrum Relocation Fund	6.858	-	-
<b>Description:</b> Funding supports Spectrum relocation and sharing activities			
<b>Accomplishments/Planned Programs Subtotals</b>	6.858	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency			<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303267K / <i>Auctioned Spectrum Relocation Fund</i>	<b>Project (Number/Name)</b> JS1 / <i>Auctioned Spectrum Relocation Fund</i>	

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>Auctioned Spectrum Relocation Fund</i></b>																												
Support spectrum relocation activities																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>Auctioned Spectrum Relocation Fund</i></b>																												
Support spectrum relocation activities																												



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303267K / <i>Auctioned Spectrum Relocation Fund</i>	<b>Project (Number/Name)</b> JS1 / <i>Auctioned Spectrum Relocation Fund</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Auctioned Spectrum Relocation Fund</i></b>				
Support spectrum relocation activities	1	2019	4	2020

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	2.497	-	2.497	0.000	0.000	0.000	0.000	Continuing	Continuing
JH1: <i>JFHQ-DODIN Operations</i>	-	0.000	0.000	2.497	-	2.497	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Data Science/Data Engineering Analytics Capability Support (\$2.4M) JFHQ-DODIN utilizes this capability to architect and orchestrate tools leveraging the latest advancements in data and information science. As the cyber landscape and malicious cyber actors (MCAs) continue to evolve and advance, the command is enabled and the capacity to move at tempo and scale to address the range of vulnerabilities across the DODIN terrain. This allows the cyber environment to exploit known vulnerabilities and track on-going discovery of zero-days, while shifting attack of MCAs rendering information sharing agreements as moot. The command requires a strategic architectural plan to integrate capabilities, maneuver to acquire relevant data and information necessary to automate reporting, derive situational understanding and direct defensive cyber operations (DCO). JFHQ-DODIN will acquire domain expertise to develop a software vulnerabilities classification strategy, severity metrics and corresponding prototype vulnerability detection tool for improved vulnerability discovery and mitigation.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	2.497	-	2.497
Total Adjustments	0.000	0.000	2.497	-	2.497
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	2.497	-	2.497

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY2022 President's Budget request did not include out-year funding.

The increase of \$2.497 is for a new requirement to begin in FY 2023 to assist JFHQ DODIN in executing its mission to command and control, plan, direct, coordinate, integrate and synchronize the DoD's Information Network (DoDIN) operations and Defensive Cyber Operations-Internal Defensive Measures (DCO-IDM) globally.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>	<b>Project (Number/Name)</b> JH1 / <i>JFHQ-DODIN Operations</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JH1: <i>JFHQ-DODIN Operations</i>	-	0.000	0.000	2.497	-	2.497	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Data Science/Data Engineering Analytics Capability Support (\$2.4M) JFHQ-DODIN utilizes this capability to architect and orchestrate tools leveraging the latest advancements in data and information science. As the cyber landscape and malicious cyber actors (MCAs) continue to evolve and advance, the command is enabled and the capacity to move at tempo and scale to address the range of vulnerabilities across the DODIN terrain. This allows the cyber environment to exploit known vulnerabilities and track on-going discovery of zero-days, while shifting attack of MCAs rendering information sharing agreements as moot. The command requires a strategic architectural plan to integrate capabilities, maneuver to acquire relevant data and information necessary to automate reporting, derive situational understanding and direct defensive cyber operations (DCO).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> DODIN Intelligence Driven Operations	-	-	2.497
<b>Description:</b> Data Science/Data Engineering Analytics Capability Support (\$2.4M) JFHQ-DODIN utilizes this capability to architect and orchestrate tools leveraging the latest advancements in data and information science. As the cyber landscape and malicious cyber actors (MCAs) continue to evolve and advance, the command is enabled and the capacity to move at tempo and scale to address the range of vulnerabilities across the DODIN terrain. This allows the cyber environment to exploit known vulnerabilities and track on-going discovery of zero-days, while shifting attack of MCAs rendering information sharing agreements as moot. The command requires a strategic architectural plan to integrate capabilities, maneuver to acquire relevant data and information necessary to automate reporting, derive situational understanding and direct defensive cyber operations (DCO).			
<b>FY 2023 Plans:</b> JFHQ-DODIN will acquire domain expertise to develop a software vulnerabilities classification strategy, severity metrics and corresponding prototype vulnerability detection tool for improved vulnerability discovery and mitigation.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$2.497 from FY 2022 and FY 2023 is for the initial acquisition of Software Engineering Institute Computer Emergency Response Team (CERT) support to rapidly mature JFHQ-DODIN's defensive architecture strategies, processes, and capabilities. Subject Matter Experts will provide strategic planning, expert guidance, and novel tool concepts to enhance the command's ability to mature and not be out matched by contemporary adversaries.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	2.497

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>	<b>Project (Number/Name)</b> JH1 / <i>JFHQ-DODIN Operations</i>

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>	<b>Project (Number/Name)</b> JH1 / <i>JFHQ-DODIN Operations</i>
--	---	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DODIN Intelligence Driven Operations	C/IDIQ	Software Engineering Institute (SEI) : JFHQ-DODIN locations	-	-		-		2.497	Jan 2022	-		2.497	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		2.497		-		2.497	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	-		-		2.497		-		2.497	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>	<b>Project (Number/Name)</b> JH1 / <i>JFHQ-DODIN Operations</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

***Data Science/Data Engineering Analytics Capability Support***

Data Science/Data Engineering Analytics Capability Support



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305251K / <i>Cyberspace Operations Forces and Force Support</i>	<b>Project (Number/Name)</b> JH1 / <i>JFHQ-DODIN Operations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Data Science/Data Engineering Analytics Capability Support</i></b>				
Data Science/Data Engineering Analytics Capability Support	1	2022	4	2024



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0708012K / Logistics Support Activities
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	2.678	1.654	1.690	1.620	-	1.620	1.533	1.597	1.643	1.676	Continuing	Continuing
LSA: Logistics Support Activities	2.678	1.654	1.690	1.620	-	1.620	1.533	1.597	1.643	1.676	Continuing	Continuing

**Note**

N/A

**A. Mission Description and Budget Item Justification**

Classified

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	1.654	1.690	0.000	-	0.000
Current President's Budget	1.654	1.690	1.620	-	1.620
Total Adjustments	0.000	0.000	1.620	-	1.620
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	1.620	-	1.620

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Program is classified and exhibit will be provided under a separate cover.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0708012K / Logistics Support Activities				Project (Number/Name) LSA / Logistics Support Activities			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
LSA: Logistics Support Activities	2.678	1.654	1.690	1.620	-	1.620	1.533	1.597	1.643	1.676	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Classified.

**A. Mission Description and Budget Item Justification**

Classified.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> LSA	1.654	1.690	1.620
<b>Description:</b> Classified.			
<b>FY 2022 Plans:</b> Classified.			
<b>FY 2023 Plans:</b> Classified.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.654	1.690	1.620

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

Classified.

**D. Acquisition Strategy**

Classified.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012K / <i>Logistics Support Activities</i>	<b>Project (Number/Name)</b> LSA / <i>Logistics Support Activities</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Classified	Various	Classified : Classified	2.678	1.654	Oct 2020	1.690	Oct 2021	1.620	Oct 2022	-		1.620	Continuing	Continuing	-
<b>Subtotal</b>			2.678	1.654		1.690		1.620		-		1.620	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			2.678	1.654		1.690		1.620		-		1.620	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012K / <i>Logistics Support Activities</i>	<b>Project (Number/Name)</b> LSA / <i>Logistics Support Activities</i>
--	---	---

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Classified</b>	
Classified	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Classified</b>	
Classified	

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012K / <i>Logistics Support Activities</i>	<b>Project (Number/Name)</b> LSA / <i>Logistics Support Activities</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Classified</b>				
Classified	1	2019	3	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	52.832	2.699	0.000	1.270	-	1.270	0.000	0.000	0.000	0.000	Continuing	Continuing
NS01: <i>Teleport Generation 1/2</i>	48.332	1.210	0.000	1.270	-	1.270	0.000	0.000	0.000	0.000	Continuing	Continuing
NS03: <i>SATCOM Gateway</i>	4.500	1.489	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Department of Defense (DoD) Teleport system is a satellite communications (SATCOM) gateway that links the deployed warfighter to the Global Information Grid. The DoD Teleport program has fielded system capabilities incrementally using a multi-generational approach with Generation 1 and 2 Full Deployment authorized by DoD Chief Information Officer on February 18, 2011. DoD Teleport Generation 3 consists of three phases; Phases 1 and 2 are in Production and Deployment while Phase 3 is in Engineering and Manufacturing Development. Each DoD Teleport investment increases the warfighter's ability to communicate with a world-wide, net-centric set of information capabilities, which is vital for the DoD to maintain a persistent presence among its adversaries.

Currently, the Teleport system operates as an upgrade of SATCOM capabilities at selected DoD SATCOM gateways. This system provides deployed warfighters with seamless worldwide multi-band SATCOM connectivity to the Defense Information System Network (DISN) Service Delivery Nodes and legacy tactical command, control, communications, computers, and intelligence systems. It also provides centralized integration capabilities, contingency capacity, and common interfaces to access the DISN.

DoD Teleport's goal is to provide secure, seamless, interoperable, and economical upgrades to DoD SATCOM Gateways and meet the growing throughput requirements of the deployed warfighter.

The primary beneficiaries of the DoD Teleport investment are the DoD Combatant Commanders, Military Departments, Defense Agencies, and the warfighter. DoD Teleport Generation 3 is designed to meet the growing demands of the warfighter through the execution of the following phases:

Phase 1: Gateway Advanced Extremely High Frequency [Extended Data Rate] terminals provides tactical users with a 350% bandwidth increase in survivable, antijam communications through all peacetime and combat operations by installing Navy Multiband Terminals (NMT) at select Teleport sites. In addition to enhanced throughput, the NMT maintains compatibility with legacy waveforms and current tactical terminals.

Phase 2: Gateway Wideband Global SATCOM X/Ka-band terminals provide enhanced Wideband Global System (WGS) X/Ka capability to warfighters worldwide by installing terminals from the Modernization of Enterprise Terminal (MET) program at DoD Teleport and other gateway sites. This gateway enhancement allows Teleport to replace end-of-life Defense Satellite Communications System (DSCS) terminals while remaining interoperable with tactical WGS X/Ka-band users. The MET enhancement provides a 300% Ka-band capacity increase and an 1100% X-band capacity increase to current enterprise terminal X/Ka capabilities. Additionally, it enables the DoD Teleport system to maintain operational availability consistent with Generation 2 requirements and reduce the overall life-cycle cost of X/Ka capabilities across the DoD.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>
---	---

Phase 3: Mobile User Objective System (MUOS) to Legacy Ultra High Frequency (UHF) systems interoperability will provide interoperability between MUOS users and legacy UHF users by installing MUOS-to-Legacy UHF SATCOM Gateway Component (MLGC) suites of equipment at DoD Teleport sites. MUOS is the next generation DoD UHF SATCOM system that will provide the warfighter with modern worldwide mobile communication services, utilizing the Wideband Code Division Multiple Access waveform for use in the military UHF SATCOM band. MLGC suites will provide critical continuity and interoperability as DoD tactical satellite users transition from legacy waveforms and radios to the Joint Tactical Radio System.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	2.699	0.000	0.000	-	0.000
Current President's Budget	2.699	0.000	1.270	-	1.270
Total Adjustments	0.000	0.000	1.270	-	1.270
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	1.270	-	1.270

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The increase of \$1.270 in FY 2023 is due to requirements for Joint Interoperability Test Command (JITC ) test support for MLGC/MVG (MUOS to Legacy Gateway Component/MUOS Voice Gateway) testing (technical support services).



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>				<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
NS01: <i>Teleport Generation 1/2</i>	48.332	1.210	0.000	1.270	-	1.270	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Teleport program will implement an integrated test approach that will combine the objectives from multiple testing disciplines (e.g., developmental test, operational test, interoperability, and information assurance) throughout the testing lifecycle to support needed system evaluations. The Teleport program executes its own test events to achieve this integrated approach, but will partner with each phase's respective program office generated test activities to leverage the data needed to satisfy Teleport program test objectives. An approach summary for Teleport Gen 1/2 follows:

Generation 1/2 Technology Refresh/Technology Insertion: Funding will be used to maintain the Joint Interoperability Certification of the DoD Teleport System as the system is upgraded and refreshed with new components.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Teleport Program	1.210	0.000	1.270
<b>Description:</b> Department of Defense (DoD) Teleport system is a satellite communications (SATCOM) gateway that links the deployed warfighter to the Department of Defense Information Network (DODIN). The Teleport program supports the warfighter with a world-wide, net-centric set of communication and information capabilities.			
<b>FY 2022 Plans:</b> No funds requested for FY 2022			
<b>FY 2023 Plans:</b> Teleport plans to complete testing for MLGC/MVG (MUOS to Legacy Gateway Component/MUOS Voice Gateway) and continue research, development, and testing for tech refresh and tech insertion at the Joint Satellite Engineering Center (JSEC) laboratory.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$1.270 from FY 2022 to FY 2023 is due to requirements for JITC test support for MLGC/MVG (MUOS to Legacy Gateway Component/MUOS Voice Gateway) testing and U.S. Army C5ISR support at the JSEC Teleport lab, including security Information Assurance Vulnerability Alerts (IAVA) support for the Teleport system.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.210	0.000	1.270

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
--	---	---

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	
• O&M, DW/ PE1203610K: <i>O&amp;M, DW</i>	11.375	11.505	5.169	-	5.169	-	-	-	-	-	Continuing	Continuing
• Procurement, DW/ PE1203610K: <i>Procurement, DW</i>	26.655	31.814	29.679	-	29.679	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The Teleport Program Office (TPO) uses the DoD preferred evolutionary acquisition approach to acquire Commercial off the Shelf (COTS) and modified COTS equipment when possible. The three TPO procuring agencies, Program Manager Defense Communications and Army Transmission Systems, the Space and Naval Warfare Systems Command, and Defense Information Technology Contracting Organization (DITCO) provide direct contracting support. Assistance from other Departments including Army, Navy, and Air Force is acquired via Military Interdepartmental Purchase Request for both organic and contracted support. The TPO maximizes the use of performance-based contracts and requires contractors to establish and manage specific earned value data to mitigate risk and monitor deviations from cost, schedule, and performance objectives. Performance is evaluated through post-award contract reviews, performance assessment during quarterly program reviews. The MLGC program will use various contract types to employ the vendor best suited to deliver the program's capabilities to the warfighter.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency Date: April 2022

Appropriation/Budget Activity 0400 / 7 R-1 Program Element (Number/Name) PE 1203610K / Teleport Program Project (Number/Name) NS01 / Teleport Generation 1/2

Support (\$ in Millions) table with columns for Cost Category Item, Contract Method & Type, Performing Activity & Location, Prior Years, FY 2021, FY 2022, FY 2023 Base, FY 2023 OCO, FY 2023 Total, Cost To Complete, Total Cost, and Target Value of Contract. Includes rows for Engineering Technical Support (Tech Refresh) and SATCOM, NATO, DISN, and Tactical Radio Tech Support Svcs.

Test and Evaluation (\$ in Millions) table with columns for Cost Category Item, Contract Method & Type, Performing Activity & Location, Prior Years, FY 2021, FY 2022, FY 2023 Base, FY 2023 OCO, FY 2023 Total, Cost To Complete, Total Cost, and Target Value of Contract. Includes row for Testing Support Services (Tech Refresh).

Summary row for Project Cost Totals with columns: Prior Years (48.332), FY 2021 (1.210), FY 2022 (-), FY 2023 Base (1.270), FY 2023 OCO (-), FY 2023 Total (1.270), Cost To Complete (Continuing), Total Cost (Continuing), Target Value of Contract (N/A).

Remarks section

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
--	---	---

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Teleport Program</b>	
Integrated testing that supported Teleport system evaluation and Technology Refresh/ Technology Insertion	████████████████████

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Teleport Program</b>	
Integrated testing that supported Teleport system evaluation and Technology Refresh/ Technology Insertion	██

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Teleport Program</i></b>				
Integrated testing that supported Teleport system evaluation and Technology Refresh/ Technology Insertion	2	2019	4	2025

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>				<b>Project (Number/Name)</b> NS03 / <i>SATCOM Gateway</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
NS03: <i>SATCOM Gateway</i>	4.500	1.489	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The SATCOM Gateway is an enterprise system that will adhere to the Joint Information Environment (JIE) architecture, and support all DoD satellite communications requirements, to include Strategic (Presidential, SECDEF, SECSTATE, Chairman Joint Chiefs of Staff, Milestone Decision Authority (MDA)) and Tactical (Combatant Commanders/Services/Agencies (CC/S/A)) users over satellite trunks through the DoD Information Network (DODIN).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> SATCOM Gateway	1.489	-	-
<b>Description:</b> The SATCOM Gateway is an enterprise system that adheres to the Joint Information Environment (JIE) architecture in support of SATCOM operations. The SATCOM Gateway system supports the warfighter to include strategic and tactical users by providing DoD satellite communication requirements over satellite trunks through the DoD Information Network (DODIN).			
<b>Accomplishments/Planned Programs Subtotals</b>	1.489	-	-

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• O&M, DW/ PE1203610K: <i>O&amp;M, DW</i>	7.999	7.956	-	-	-	-	-	-	-	Continuing	Continuing
• Procurement, DW/ PE1203610K: <i>Procurement, DW</i>	2.037	5.447	-	-	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS03 / <i>SATCOM Gateway</i>
--	---	--

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Engineering Technical Support (MUOS tool)	Various	TBD : TBD	4.500	1.489	Oct 2020	-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			4.500	1.489		-		-		-		-	Continuing	Continuing	N/A
			<b>Prior Years</b>	<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			4.500	1.489		-		-		-		-	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS03 / <i>SATCOM Gateway</i>
--	---	--

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>SATCOM Gateway</b>	
Engineering, development, testing, and evaluation of a MUOS terminal planning tool and data controller supporting SATCOM operations.	<div style="background-color: black; width: 100px; height: 1.2em; display: inline-block;"></div>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>SATCOM Gateway</b>	
Engineering, development, testing, and evaluation of a MUOS terminal planning tool and data controller supporting SATCOM operations.	<div style="background-color: black; width: 600px; height: 1.2em; display: inline-block;"></div>



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS03 / <i>SATCOM Gateway</i>
--	---	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>SATCOM Gateway</b>				
Engineering, development, testing, and evaluation of a MUOS terminal planning tool and data controller supporting SATCOM operations.	2	2020	4	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 8: Software and Digital Technology Pilot Programs</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	32.774	34.987	-	34.987	33.844	33.799	50.526	52.459	Continuing	Continuing
CC01: <i>Global Command</i>	0.000	0.000	32.774	34.987	-	34.987	33.844	33.799	50.526	52.459	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Global Command and Control System-Joint (GCCS-J) is the Joint C2 system of record and an essential component for successful implementation of the operational concepts of dominant maneuver, precision engagement, full-dimension protection, and focused logistics. It provides an integrated near real time picture of the battlespace to support joint and multinational operations on US and coalition networks. GCCS-J provides air, maritime, ground, space and cyber tracks for US, coalition, and enemy forces. It also provides applications for situational awareness, missile warning, intelligence, targeting, imagery exploitation, and applications for modeling chemical, biological, radiological, and nuclear (CBRN) hazard areas and effects. GCCS-J is used by key decision makers at the strategic national, strategic theater, and operational levels. Additionally, GCCS-J is used by all nine combatant commands (COCOMs) at sites around the world, supporting joint and coalition operations. The GCCS Family of Systems (FoS) (i.e. the military services) use components of GCCS-J to build their Service unique variants.

GCCS-J provides a Common Operational Picture (COP) with ground, air, maritime, cyber and space tracks for US, coalition, and enemy forces, and has many tactical decision aids and other applications for COP management and situational awareness. GCCS-J is also the system of record for Theater Missile Warning, and provides alerting and display for missile events. GCCS-J displays launch points, missile locations, threat fans, and projected impact points. GCCS-J has applications that provide intelligence support to C2 with national and tactical intelligence data from DIA's Modernized Integrated Database (MIDB), still and motion imagery, and other sources of intelligence. Targeting support is provided via the Joint Targeting Toolbox (JTT) application. GCCS-J also provides Chemical Biological Radiological Nuclear (CBRN) support to C2 via the Joint Effects Model (JEM) and Joint Warning and Reporting Network (JWARN) applications that model CBRN hazard areas/effects and receive/generate reports for warning affected areas.

1000+ GCCS-J instances can be found around the world (air, land and sea), on 30+ US and Coalition networks, and in 13 active Foreign Military Sales (FMS) cases. The following Joint Staff instructions apply: CJCSI 3265.01A (Governance), CJCSI 6731.01C (Security), and CJCSI 3151.31D (Reporting)

GCCS-J support the Joint All Domain Command and Control (JADC2) which is an approach to military decision making. JADC2 rapidly realize agile & resilient command and control (C2) across all-domains through integrated and synchronized capability development. JADC2 enabling capabilities will provide the ability to connect distributed sensors, intelligence, information, data, and effects from all domains to decision makers from the tactical to the strategic at the scale, tempo, and timing required to accomplish commander's intent, agnostic to domains, platforms, or functional lanes.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Information Systems Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 8: Software and Digital Technology Pilot Programs</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	32.774	0.000	-	0.000
Current President's Budget	0.000	32.774	34.987	-	34.987
Total Adjustments	0.000	0.000	34.987	-	34.987
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	0.000	-	34.987	-	34.987

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. The increase of \$2.213 in FY 2023 is due to the continued development of the Integrated Global Force functionality.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 8					<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>				<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CC01: <i>Global Command</i>	0.000	0.000	32.774	34.987	-	34.987	33.844	33.799	50.526	52.459	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Global Command and Control System-Joint (GCCS-J) is the DOD System of Record for Situational Awareness and Operational Intel. The Global Command and Control System – Joint (GCCS-J) is the Department of Defense (DoD) Command and Control (C2) system of record. GCCS-J provides a robust and seamless C2 capability to the White House, Commander-in-Chief (CINC), Secretary of Defense (SECDEF), National Military Command Center (NMCC), Combatant Commanders (CDRs), Joint Force Commanders, and Service Component Commanders. GCCS-J provides situational awareness and operational intel tools that joint warfighters at all levels use to plan, execute, and manage US and coalition operations.

GCCS-J support the Joint All Domain Command and Control (JADC2) which is an approach to military decision making. JADC2 rapidly realize agile & resilient command and control (C2) across all-domains through integrated and synchronized capability development. JADC2 enabling capabilities will provide the ability to connect distributed sensors, intelligence, information, data, and effects from all domains to decision makers from the tactical to the strategic at the scale, tempo, and timing required to accomplish commander’s intent, agnostic to domains, platforms, or functional lanes..”.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Development and Strategic Planning	0.000	32.774	34.987
<p><b>Description:</b> Develop, publish, and execute a GCCS-J migration and modernization strategy that achieves the following GCCS-J Modernization objectives in accordance with Joint C2 Mission operational priorities and the DoD’s JC2 Reference Architecture:</p> <ul style="list-style-type: none"> <li>• Continue to decompose applicable existing applications into services</li> <li>• Limit local deployment and move as much to the enterprise as possible</li> <li>• Continue to expose data and scale services to support an enterprise implementation</li> <li>• Continue to evolve more economical hardware and software architecture without impact to the operational user or Family of Systems (FoS)/interface partners</li> <li>• Reduce overall sustainment cost through use of more cost effective and appropriate Commercial-off-the-Shelf (COTS) and Hardware (HW) products</li> <li>• Evolve to use of agile development practices</li> <li>• Consolidation of clients and tools</li> </ul> <p><b>FY 2022 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
Continue the GCCS-J modernization activities that began in FY21 to include: developing, testing, and deploying additional GCCS-J Web client capabilities; support the Joint All Domain Command and Control (JADC2) campaign and series of modernization experiments designed to “increase interoperability, situational awareness and lethality that will enable any shooter, with any sensor, through any C2 node, in near-real time to employ joint and mission partner effects”; continue IPv6 compliance work to achieve DoD’s IPv6 compliance objective; and develop and deploy GCCS-J web client capabilities and backend services to a SIPR cloud environment (e.g. Amazon Web Services, and Microsoft AZURE).			
<b>FY 2023 Plans:</b> Continue daily support of the Operational Community. Incrementally developing, testing, and fielding additional GCCS-J 6.0.x and GCCS-J 6.1.x capabilities, as identified and prioritized by the Joint Staff (JS) and User community. Also, continue to address missile warning requirements as defined in the Global Threat Characterization Assessment (GTCA); complete the implementation of the full set of Link 16 requirements in the Link Processing Capability (LPC) application; and address additional high priority items from the Joint Staff "Top 10" list of requirements. Continue to support / fund GCCS-J certification and accreditation activities to include GCCS-J v6.0 reaccreditation; GCCS-J v6.1 accreditation (new); and GCCS-J Enterprise Baseline accreditation (new). Additionally, continue to fund software licenses for the Joint Staff critical sites, as required.			
Continue the GCCS-J modernization activities that began in FY21 to include: developing, testing, and deploying additional GCCS-J Web client capabilities; support the Joint All Domain Command and Control (JADC2) campaign and series of modernization experiments designed to “increase interoperability, situational awareness and lethality that will enable any shooter, with any sensor, through any C2 node, in near-real time to employ joint and mission partner effects”; continue IPv6 compliance work to achieve DoD’s IPv6 compliance objective; and develop and deploy GCCS-J web client capabilities and backend services to a SIPR cloud environment (e.g. Amazon Web Services, and Microsoft AZURE).			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase of \$2.213 from FY 2022 to FY 2023 is the result of continued development and deployment of integrated Global Force Management (GFM) functionality.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	32.774	34.987

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	
			Base	OCO	Total					Complete	Total Cost
• PE 0303150K: <i>Operation &amp; Maintenance, Defense-Wide</i>	16.254	17.554	18.027	-	18.027	-	-	-	-	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											

**D. Acquisition Strategy**

Use of performance-based contract awards is maximized while use of Time and Material contracts is minimized to those providing programmatic support versus software development, integration, or testing. All development, integration, and migration efforts within the portfolio are primarily supported through Cost Reimbursable Task Orders issued under competitively awarded contracts. Acquisition Strategies are structured to retain contractors capable of satisfying cost, schedule, and performance objectives. Contract awards incorporate provisions requiring contractors to establish and manage specific earned value data. This strategy mitigates risk by requiring monthly Contract Performance Reviews (CPRs) and utilizing award fee contracts where appropriate to incentivize performance. GCCS-J applies formal acquisition rigor to include reporting requirements, as appropriate, by acquisition program designation.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPFF	NMGS: GCCS-J Sustainment : Reston, VA	-	-		18.993	Dec 2021	21.206	Dec 2022	-		21.206	Continuing	Continuing	-
Product Development	C/CPFF	C2 Systems Engineering : TBD	-	-		1.944	Feb 2022	1.944	Feb 2023	-		1.944	Continuing	Continuing	-
Product Development	C/CPFF	GCCS-J Development : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Product Development	C/FFP	Configuration Management : Montgomery	-	-		1.040	Oct 2021	1.040	Oct 2022	-		1.040	Continuing	Continuing	-
Product Development	C/FFP	Milcloud Hosting : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance GEMFIRE : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: VMWare : TBD	-	-		0.148	Apr 2022	0.148	Apr 2023	-		0.148	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Redhat : TBD	-	-		0.565	Dec 2021	0.565	Dec 2022	-		0.565	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance Sybase : TBD	-	-		0.663	Sep 2022	0.663	Sep 2023	-		0.663	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Oracle WebLogic : TBD	-	-		0.806	Jan 2022	0.806	Jan 2023	-		0.806	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Oracle JAVA JELA : TBD	-	-		0.059	Sep 2022	0.059	Nov 2023	-		0.059	Continuing	Continuing	-



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/FFP	Software Maintenance: Microfocus : TBD	-	-		0.084	Mar 2022	0.084	Mar 2023	-		0.084	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: ForgeRock : TBD	-	-		0.048	May 2022	0.048	May 2023	-		0.048	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Microsoft JELA : TBD	-	-		0.031	Nov 2021	0.031	Nov 2022	-		0.031	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: VEEAM : TBD	-	-		0.016	Mar 2022	0.016	Mar 2023	-		0.016	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Fortify : TBD	-	-		0.088	Dec 2021	0.088	Dec 2022	-		0.088	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: JIRA : TBD	-	-		0.039	Dec 2021	0.039	Dec 2022	-		0.039	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Crunchy PostGresSQL : TBD	-	-		0.097	Jul 2022	0.097	Jul 2023	-		0.097	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Risk Radar : TBD	-	-		0.018	Jul 2022	0.018	Jul 2023	-		0.018	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: NetApp : TBD	-	-		0.230	Jul 2022	0.230	Jul 2023	-		0.230	Continuing	Continuing	-
Product Development	C/FFP	Software Maintenance: Solarwinds and Flexera (CC) : TBD	-	-		0.006	Jun 2022	0.006	Jun 2023	-		0.006	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Information Systems Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development	C/FFP	HW Maintenance: CISCO JELA : TBD	-	-		0.035	Jun 2022	0.035	Jun 2023	-		0.035	Continuing	Continuing	-
Product Development	C/FFP	HW Maintenance: Sun : TBD	-	-		0.414	Feb 2022	0.414	Feb 2023	-		0.414	Continuing	Continuing	-
<b>Subtotal</b>			-	-		25.324		27.537		-		27.537	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support Cost	C/FFP	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Support: SD Program Management Support	C/FFP	Strategic Alliance Business Group : Ft Meade	-	-		0.920	Aug 2022	0.920	Aug 2023	-		0.920	Continuing	Continuing	-
Support: GM&A (Travel, Training, Laptops, Credit Card, etc.)	C/FFP	Various : Ft Meade	-	-		0.495	Oct 2021	0.495	Oct 2022	-		0.495	Continuing	Continuing	-
Support: Mobility PDC - EWMB97	MIPR	DISA : Ft Meade	-	-		0.057	Oct 2021	0.057	Oct 2022	-		0.057	Continuing	Continuing	-
Support: Naval Information Warfare Center (NIWC) Atlantic	MIPR	NIWC : Various	-	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		1.472		1.472		-		1.472	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	MIPR	JITC : Various	-	-		0.218	Oct 2021	0.218	Oct 2022	-		0.218	Continuing	Continuing	-

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Information Systems Agency</b>												<b>Date: April 2022</b>		
<b>Appropriation/Budget Activity</b> 0400 / 8				<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>					<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>					

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Test & Evaluation	MIPR	DAA : STRATCOM:Various	-	-		0.896	Oct 2021	0.896	Oct 2022	-		0.896	Continuing	Continuing	-
Test & Evaluation	MIPR	RME : Various	-	-		0.888	Oct 2021	0.888	Oct 2022	-		0.888	Continuing	Continuing	-
Test & Evaluation	MIPR	DISA Circuit: PDC WHPP : Ft Meade	-	-		0.057	Oct 2021	0.057	Oct 2022	-		0.057	Continuing	Continuing	-
Test & Evaluation	MIPR	Telecommunication Services: CDES FAA : TBD	-	-		0.081	Oct 2021	0.081	Oct 2022	-		0.081	Continuing	Continuing	-
Test & Evaluation	MIPR	C2 Test and Evaluation - NEXTGEN : Various	-	-		2.985	Aug 2022	2.985	Oct 2022	-		2.985	Continuing	Continuing	-
Test & Evaluation	MIPR	SD CyberSecurity Support - U.S. Army Combat Capabilities Development Command Data & Analysis Center : Various	-	-		0.557	Aug 2022	0.557	Oct 2022	-		0.557	Continuing	Continuing	-
Test & Evaluation	MIPR	AIR FORCE RESEARCH LAB/ RIFB (AFRL) : Various	-	-		0.291	Oct 2021	0.291	Oct 2022	-		0.291	Continuing	Continuing	-
Test & Evaluation	MIPR	FAA Feed, FAA NAS Defense Programs : Various	-	-		0.005	Oct 2021	0.005	Oct 2022	-		0.005	Continuing	Continuing	-
<b>Subtotal</b>			-	-		5.978		5.978		-		5.978	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Management Services	FFRDC	MITRE : Various	-	-		-		-		-		-	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Management Services	FFRDC	Institute for Defense Analyses (IDA) : Various	-	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		-		-		-		-	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	-		32.774		34.987		-		34.987	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Development and Strategic Planning</b>																												
Development and Strategic Planning																												
<b>Integration and Test</b>																												
Integration and Test																												
<b>Process Transformation</b>																												
Process Transformation																												
<b>Development Transformation</b>																												
Development Transformation																												
<b>Security Transformation</b>																												
Security Transformation																												
<b>UX Transformation</b>																												
UX Transformation																												
<b>Data Transformation</b>																												
Data Transformation																												
<b>Operations Transformation</b>																												
Operations Transformation																												
<b>Operational Web Client - IOC</b>																												
Operational Web Client - IOC																												
<b>Initial Enterprise Deployment</b>																												
Initial Enterprise Deployment																												
<b>ICSF Independence</b>																												
ICSF Independence																												
<b>GCCS-J Release v.6.1.0 - v6.1.X</b>																												
GCCS-J Release v.6.1.0 - v6.1.X																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Operational Web Client -FOC</b>	
Operational Web Client -FOC	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Development and Strategic Planning</b>	
Development and Strategic Planning	
<b>Integration and Test</b>	
Integration and Test	
<b>Process Transformation</b>	
Process Transformation	
<b>Development Transformation</b>	
Development Transformation	
<b>Security Transformation</b>	
Security Transformation	
<b>UX Transformation</b>	
UX Transformation	
<b>Data Transformation</b>	
Data Transformation	
<b>Operations Transformation</b>	
Operations Transformation	
<b>Operational Web Client - IOC</b>	
Operational Web Client - IOC	
<b>Initial Enterprise Deployment</b>	

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Initial Enterprise Deployment	
<b><i>ICSF Independence</i></b>	
ICSF Independence	
<b><i>GCCS-J Release v.6.1.0 - v6.1.X</i></b>	
GCCS-J Release v.6.1.0 - v6.1.X	
<b><i>Operational Web Client -FOC</i></b>	
Operational Web Client -FOC	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Information Systems Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Development and Strategic Planning</i></b>				
Development and Strategic Planning	1	2020	4	2022
<b><i>Integration and Test</i></b>				
Integration and Test	1	2020	4	2026
<b><i>Process Transformation</i></b>				
Process Transformation	3	2020	4	2022
<b><i>Development Transformation</i></b>				
Development Transformation	2	2020	4	2022
<b><i>Security Transformation</i></b>				
Security Transformation	3	2020	2	2022
<b><i>UX Transformation</i></b>				
UX Transformation	2	2020	4	2026
<b><i>Data Transformation</i></b>				
Data Transformation	2	2020	4	2026
<b><i>Operations Transformation</i></b>				
Operations Transformation	2	2020	4	2026
<b><i>Operational Web Client - IOC</i></b>				
Operational Web Client - IOC	1	2021	4	2022
<b><i>Initial Enterprise Deployment</i></b>				
Initial Enterprise Deployment	1	2021	3	2022
<b><i>ICSF Independence</i></b>				



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Information Systems Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 8	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System Software and Digital Technology Pilot Programs</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command</i>
--	---	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ICSF Independence	1	2021	3	2023
<b><i>GCCS-J Release v.6.1.0 - v6.1.X</i></b>				
GCCS-J Release v.6.1.0 - v6.1.X	3	2021	4	2026
<b><i>Operational Web Client -FOC</i></b>				
Operational Web Client -FOC	1	2022	4	2026

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Logistics Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Logistics Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 341**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 353**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 355**  
**Exhibit R-2s..... Volume 5 - 357**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	252,947	350,904				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		350,904	227,972
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Advanced Technology Development	212,857	295,724				
System Development & Demonstration	22,730	31,790				
Management Support	8,606	11,500				
Operational Systems Development	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				
<u>Summary Recap of FYDP Programs</u>						
Research and Development	244,193	339,014				
Central Supply and Maintenance	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Advanced Technology Development		295,724	199,662
System Development & Demonstration		31,790	23,171
Management Support		11,500	
Operational Systems Development		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972
<u>Summary Recap of FYDP Programs</u>			
Research and Development		339,014	222,833
Central Supply and Maintenance		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBB: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities						
Advanced Technology Development	212,857	295,724				
System Development & Demonstration	22,730	31,790				
Management Support	8,606	11,500				
Operational Systems Development	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				
Summary Recap of FYDP Programs						
Research and Development	244,193	339,014				
Central Supply and Maintenance	8,754	11,890				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities			
-----			
Advanced Technology Development		295,724	199,662
System Development & Demonstration		31,790	23,171
Management Support		11,500	
Operational Systems Development		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972
Summary Recap of FYDP Programs			
-----			
Research and Development		339,014	222,833
Central Supply and Maintenance		11,890	5,139
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Logistics Agency	252,947	350,904				
Total Research, Development, Test & Evaluation	252,947	350,904				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Defense Logistics Agency		350,904	227,972
Total Research, Development, Test & Evaluation		350,904	227,972

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
55	0603680S	Manufacturing Technology Program	03	66,632	81,262					U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03	14,507	11,987					U
58	0603720S	Microelectronics Technology Development and Support	03	131,718	202,475					U
		Advanced Technology Development		212,857	295,724					
134	0605070S	DOD Enterprise Systems Development and Demonstration	05	1,327	654					U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,403	31,136					U
		System Development & Demonstration		22,730	31,790					
163	0605502S	Small Business Innovative Research	06	8,606	11,500					U
		Management Support		8,606	11,500					
258	0708012S	Pacific Disaster Centers	07	1,720	5,733					U
259	0708047S	Defense Property Accountability System	07	7,034	6,157					U
		Operational Systems Development		8,754	11,890					
Total Research, Development, Test & Eval, DW				252,947	350,904					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
---	-----	-----	---	-----	-----	-----	---
55	0603680S	Manufacturing Technology Program	03		81,262	46,166	U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03		11,987	13,663	U
58	0603720S	Microelectronics Technology Development and Support	03		202,475	139,833	U
		Advanced Technology Development			295,724	199,662	
134	0605070S	DOD Enterprise Systems Development and Demonstration	05		654		U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05		31,136	23,171	U
		System Development & Demonstration			31,790	23,171	
163	0605502S	Small Business Innovative Research	06		11,500		U
		Management Support			11,500		
258	0708012S	Pacific Disaster Centers	07		5,733	1,875	U
259	0708047S	Defense Property Accountability System	07		6,157	3,264	U
		Operational Systems Development			11,890	5,139	
Total Research, Development, Test & Eval, DW					350,904	227,972	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04



UNCLASSIFIED

Defense Logistics Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
55	0603680S	Manufacturing Technology Program	03	66,632	81,262					U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03	14,507	11,987					U
58	0603720S	Microelectronics Technology Development and Support	03	131,718	202,475					U
		Advanced Technology Development		212,857	295,724					
134	0605070S	DOD Enterprise Systems Development and Demonstration	05	1,327	654					U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,403	31,136					U
		System Development & Demonstration		22,730	31,790					
163	0605502S	Small Business Innovative Research	06	8,606	11,500					U
		Management Support		8,606	11,500					
258	0708012S	Pacific Disaster Centers	07	1,720	5,733					U
259	0708047S	Defense Property Accountability System	07	7,034	6,157					U
		Operational Systems Development		8,754	11,890					
Total Defense Logistics Agency				252,947	350,904					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Logistics Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
55	0603680S	Manufacturing Technology Program	03		81,262	46,166	U
56	0603712S	Generic Logistics R&D Technology Demonstrations	03		11,987	13,663	U
58	0603720S	Microelectronics Technology Development and Support	03		202,475	139,833	U
Advanced Technology Development					295,724	199,662	
134	0605070S	DOD Enterprise Systems Development and Demonstration	05		654		U
136	0605080S	Defense Agency Initiatives (DAI) - Financial System	05		31,136	23,171	U
System Development & Demonstration					31,790	23,171	
163	0605502S	Small Business Innovative Research	06		11,500		U
Management Support					11,500		
258	0708012S	Pacific Disaster Centers	07		5,733	1,875	U
259	0708047S	Defense Property Accountability System	07		6,157	3,264	U
Operational Systems Development					11,890	5,139	
Total Defense Logistics Agency					350,904	227,972	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 15:39:04

**UNCLASSIFIED**

Defense Logistics Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
55	03	0603680S	Manufacturing Technology Program (ManTech).....	Volume 5 - 357
56	03	0603712S	Logistics Research and Development Technology (Log R&D).....	Volume 5 - 383
58	03	0603720S	Microelectronics Technology Development and Support (DMEA).....	Volume 5 - 403

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
134	05	0605070S	DOD Enterprise Systems Development and Demonstration.....	Volume 5 - 415
136	05	0605080S	Defense Agencies Initiative (DAI) - Financial System.....	Volume 5 - 421

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Logistics Agency • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
163	06	0605502S	Small Business Innovative Research (SBIR).....	Volume 5 - 431

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
258	07	0708012S	Pacific Disaster Center.....	Volume 5 - 437
259	07	0708047S	Defense Property Accountability System (DPAS).....	Volume 5 - 443

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Logistics Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
DOD Enterprise Systems Development and Demonstration	0605070S	134	05.....	Volume 5 - 415
Defense Agencies Initiative (DAI) - Financial System	0605080S	136	05.....	Volume 5 - 421
Defense Property Accountability System (DPAS)	0708047S	259	07.....	Volume 5 - 443
Logistics Research and Development Technology (Log R&D)	0603712S	56	03.....	Volume 5 - 383
Manufacturing Technology Program (ManTech)	0603680S	55	03.....	Volume 5 - 357
Microelectronics Technology Development and Support (DMEA)	0603720S	58	03.....	Volume 5 - 403
Pacific Disaster Center	0708012S	258	07.....	Volume 5 - 437
Small Business Innovative Research (SBIR)	0605502S	163	06.....	Volume 5 - 431

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	171.406	66.632	81.262	46.166	-	46.166	45.157	46.173	47.066	47.917	Continuing	Continuing
IBMP: <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>	84.905	40.864	25.763	-	-	-	-	-	-	0.000	Continuing	Continuing
AAA: <i>Maintaining Viable Supply Sources (formerly High Quality Sources)</i>	64.853	15.864	16.950	-	-	-	-	-	-	0.000	Continuing	Continuing
OOO: <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>	21.648	9.904	38.549	-	-	-	-	-	-	0.000	Continuing	Continuing
IBA: <i>Industrial Base &amp; Aging Weapon System Support</i>	-	0.000	0.000	35.222	-	35.222	35.509	36.352	37.064	37.809	Continuing	Continuing
TDM: <i>3D Tech Data Modernization / Model Based Enterprise</i>	-	0.000	0.000	10.944	-	10.944	9.648	9.821	10.002	10.108	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Logistics Agency (DLA) Manufacturing Technology (ManTech) Program funds the advanced technology development needed to achieve a responsive, efficient domestic industrial base that meets the warfighters' needs in an affordable and timely manner. The ManTech program works with DLA's diverse supply chains to improve manufacturing capability throughout a product's life cycle. It provides the crucial link between invention and application by maturing, scaling up, and validating advanced manufacturing technology in "real world" environments. ManTech developments provide a path to low-risk technology implementation for many small businesses and defense unique suppliers as well as depots and shipyards that are critical to DLA. By anticipating and addressing production and sustainment problems before they occur, readiness levels increase and sustainment costs are decreased.

Beginning in FY 2023, DLA ManTech shifts from three Strategic Focus Areas (SFAs) to two Lines of Effort (LOEs): 1) Industrial Base and Aging Weapon System Support (R&D LOE 1) and 2) 3D Technical Data Modernization / Model-Based Enterprise (R&D LOE 2). These LOEs are closely aligned to documented and tracked priorities specified in the most current DLA Strategic Plan, that calls for Digital Business Transformation as one of three critical capabilities to achieve DLA's business goals of enhancing performance, reducing costs, and becoming more predictive and data-driven. This critical capability also seeks to transform systems and processes to improve data transparency, reliability, and security for our employees, customers, and suppliers. DLA's initiatives within this critical capability align with the interim National Security Strategy (NSS) by emphasizing the importance of harnessing rapid emerging technologies that will transform how we do business.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / Manufacturing Technology Program (ManTech)
--	--

-In addition to alignment to DLA’s top strategic priorities, under Section 2521 of Title 10, US Code, DLA ManTech efforts are collaborated across DOD Military Services and Agencies. As a Principal member of the Joint Defense Manufacturing Technology Panel, DLA’s efforts are integrated within the Joint Defense Priorities.

-The Industrial Base and Aging Weapon System Support LOE (R&D LOE 1) seeks to implement innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems. This LOE aligns to DLA Strategic Plan LOE 1: Warfighter Always, DLA LOE 2: Trusted Mission Partner, DLA LOE 4: Modernized Acquisition and Supply Chain Management, as well as the cross-cutting Critical Capability C: Digital Business Transformation through the following portfolios: DOD Subsistence Supply Chain (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advanced System Technology), Batteries (Battery Network), Additive Manufacturing (AM), and Advanced Microcircuit Emulation (AME).

-The 3D Technical Data Modernization / Model Based Enterprise LOE (R&D LOE 2) integrates three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities. Efforts seek to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production. Primarily focused on the DLA Strategic Plan Critical Capability C: Digital Business Transformation, this R&D LOE cuts across DLA Strategic Plan LOE 1: Warfighter Always, DLA LOE2: Trusted Mission Partner, and DLA LOE 4: Modernized Acquisition and Supply Chain Management through portfolios for DOD soldier and individual equipment (Military Unique Sustainment Technology ((MUST)) and Defense Logistics Information Research (DLIR), as well as out of budget cycle or Emerging Manufacturing Technology (EMT) requirements.

-Until the shift from SFAs to LOEs in FY 2023, DLA ManTech remains aligned into three Strategic Focus Areas (SFAs) for FY 2021 and FY 2022: 1) Improving Industrial Base Manufacturing Processes (IIBM); 2) Maintaining Viable Sources of Supply (MVSS); and 3) Improving Technical and Logistics Information (ITLI).

-The IIBM SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA has supply chain focused execution portfolios for food (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advance System Technology), Batteries (Battery Network) and Additive Manufacturing.

-The MVSS SFA includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements without relying on foreign sources for microcircuits. This strategic focus area mitigates supply issues caused by the lack of a reliable domestic manufacturing capability to produce products or raw materials needed to build and maintain weapon systems. The major focus of the program is maintaining a reliable, trusted, domestic source for “non-procurable” linear and digital microcircuits. Microcircuit emulation allows the Services to save significant costs by using form, fit and functionally equivalent spare parts rather than redesigning the next-higher-assembly.

-The ITLI SFA includes efforts to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. It includes the Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) programs. A primary focus of this SFA is to capitalize on the emerging “Model Based Enterprise” paradigm and the semantic web as an enabler to a logistics system that is smart and connected up and down the supply chain and across all DLA Customers and suppliers. A major focus is to transform DOD engineering data from two-dimensional paper-based



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>

products to three-dimensional computer based models, and to develop processes to move from “electronic paper” (i.e. PDF files) to technical data files that can interface directly with industries’ engineering systems. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production.

DLA’s focus for this budget cycle highlights advanced capabilities in digital and technical data modernization, data management and analytics to fulfill the DLA role in the DOD Digital Engineering Strategy and improve sharing of data with the industrial base and supported organizations. Investment explores technologies to lower the Agency’s material acquisition and operation costs and improve weapons systems support. This effort spans across both DLA R&D Program Elements and R&D LOEs, impacting across the DOD Joint Defense Manufacturing Technology Panel and DLA Enterprise logistics processes.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	40.025	37.543	0.000	-	0.000
Current President's Budget	66.632	81.262	46.166	-	46.166
Total Adjustments	26.607	43.719	46.166	-	46.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	29.000	46.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.393	-3.006			
• Correction for Non-Pay/Non-Fuel Purchases	-	0.725	-	-	-
• Adjustments to Budget Year	-	-	46.166	-	46.166

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** IBMP: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Congressional Add: *Improve Steel Performance Initiative in Castings*

Congressional Add: *Supply Chain adoption of additive manufacturing, automation, and robotics in Castings*

Congressional Add: *Additive Manufacturing Castings Model*

Congressional Add: *PFAS Compounds In Food Packaging Materials Research*

Congressional Add Subtotals for Project: IBMP

**Project:** OOO: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

Congressional Add: *Rare Earth Magnets*

	<b>FY 2021</b>	<b>FY 2022</b>
	10.000	10.000
	10.000	-
	5.000	-
	-	3.000
Congressional Add Subtotals for Project: IBMP	25.000	13.000
	4.000	-

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>
---	---

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

	FY 2021	FY 2022
Congressional Add: <i>Supply Chain For Readiness &amp; Sustainment</i>	-	8.000
Congressional Add: <i>Rare Earth Recovery Technology</i>	-	2.000
Congressional Add: <i>Conversion Of Titanium Scrap</i>	-	5.000
Congressional Add: <i>Graphite Materials</i>	-	9.000
Congressional Add: <i>Nanostructured Iron Nitride Permanent Magnets</i>	-	7.000
Congressional Add: <i>Modeling &amp; Simulation Competition</i>	-	2.000
Congressional Add Subtotals for Project: OOO	4.000	33.000
Congressional Add Totals for all Projects	29.000	46.000

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023:

- Critical Chemicals: Strategic Material Related Efforts
- DLA ManTech baseline was increased \$2.343 million based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>				<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
IBMP: <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>	84.905	40.864	25.763	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Improving Industrial Base Manufacturing Processes Strategic Focus Area (SFA) is an R&D effort undertaken with DLA’s suppliers to reduce material costs, reduce the length and variability of production lead-times, assure DLA managed products meet performance requirements, and continuously improve quality and reliability. Benefits of this SFA include lower material costs, lower inventory levels and more predictable customer wait times, fewer quality deficiencies, and lower customer support costs. This SFA includes within its scope the Subsistence Network, the Battery Network, the Castings/Forging programs and Additive Manufacturing programs.

The Subsistence Network (SUBNET) program focuses on solutions to develop and promote manufacturing improvements in the subsistence supply chain. The program's expanded areas of interest include: combat rations, food equipment, field feeding solutions, food footprint, food innovations, food safety and defense developments, garrison feeding, nutrition and health, storage and packing solutions, surge and sustainment support, and water security. SUBNET forms a community of practice with Military Services, U.S. Department of Agriculture, Natick Soldier Research Development, and Engineering Center; Academia, and Industry to research and promote manufacturing improvements in the Subsistence Supply Chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. Desired outcomes include: reduced cost, increased efficiencies, improved processes, enhanced quality, and improved surge demand capabilities.

The Casting program works to ensure a stable, reliable, and competitive domestic casting industrial base supporting the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). The casting program works with industry, universities, and the Casting Industry Associations to identify projects that improve the materials, processes and business practices of the nation’s foundry industry. The program aligns projects with strategic issues and identified focus areas within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the casting industry. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA’s backorders or unfilled orders (UFOs). Cast parts are about two percent of National Stock Numbered Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are castings. This program includes tasks that focus on developing new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed, these capabilities will support the foundry industry, where the technologies will be tested and implemented, most often in conjunction with the casting industry associations. These advancements improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-times, reducing costs, and improving quality of castings critical to DOD weapon systems.

The Forging program works to ensure a stable, reliable, and competitive domestic forging industrial base for the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). Working with industry, universities, and the Forging Industry Associations to identify projects that improve the

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

materials, processes and business practices of the nation's forging industry. The program aligns its projects with strategic issues and focus areas identified within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the forging industry. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are about two percent of National Stock Number (NSN) Class IX parts but represent about 5 percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where these technologies will be tested and implemented in conjunction with the forging industry associations. These advancements improve the forging supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Battery Network (BATTNET) program objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. BATTNET conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher a Manufacturing Readiness Level (MRL) for specific groups of batteries. BATTNET also focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of Service approved batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Additive Manufacturing (AM) program objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA is pursuing all AM technology as a lead-time and inventory reduction enabler. The AM effort pursues alternate means of supply for products that are otherwise non-procurable or susceptible to procurement issues due to an unresponsive manufacturing vendor base. The AM effort includes the identification of AM candidates among the population of products that are needed but hard to obtain, costly or have long manufacturing lead times. The AM effort requires management of 3D digital technical and manufacturing data. In addition, the AM effort includes the development of the processes that will tie the designers, engineers, maintainers, logisticians, procurement managers and the vendor base into a seamless AM procurement stream. Potential benefits include products that can address an unfulfilled Warfighter readiness need by reducing production lead times, production costs, storage costs, transportation costs and in some cases fuel consumption due to lighter design and material options. DLA R&D will leverage these efforts with Industry, Academia and ongoing Military Service-level agreements (Army, Navy, Marine Corps, Air Force), Oak Ridge National Laboratory (ORNL) and the Department of Energy.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Improving Industrial Base Manufacturing Processes (formerly Material Availability)	15.864	12.763	-
<b>Description:</b> The Subsistence Network (SUBNET) program conducted research, development, test and evaluation on short-term projects to improve the subsistence supply chain. The SUBNET program worked with community partners (military services, industry, and academia) to leverage the latest technologies and innovations for the R&D projects. SUBNET researched and executed projects in FY 2021 regarding modernization and readiness analysis of a joint food management system; subsistence readiness analysis and innovation assessment of the supply chain; pre and polyfluoroalkyl (PFAS) in meals, ready-to-eat			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>packing materials; develop and test laminate structures in hot sauce pouches for MREs; and blockchain application for outside of continental U.S. subsistence prime vendor supply chain. The program also continued to work with small business innovation research (SBIR) subsistence topics such as the use of cold plasma fog mist to disinfect personnel protective equipment and cold plasma technology to extend the shelf life of fresh fruits and vegetables and collaborate with the Defense Advanced Research Projects Agency on future projects for synergy and as a potential transition partner.</p> <p>The Casting program continued to monitor awarded projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The program works to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap. Our projects focus on improving manufacturing processes such as die coatings and integrated sensors and technologies that include simulation modeling and 3D printing of casting molds and cores, and workforce development to secure a sustainable supply chain for DLA and the DOD. These efforts included webinars for both DLA employees and the casting industry, on-site and virtual seminars or DLA/DOD employees, resources that assisted suppliers and DLA with questions regarding castings, and directed active DLA solicitations containing castings to capable suppliers that increased visibility and reduced no-bid situations.</p> <p>The Forging program monitored projects awarded under the Broad Agency Announcement (BAA) offered in FY 2020 and awarded in September 2020. There was a total of three new contracts awarded which include seven new projects, The projects included a focus on exploring alternative forging manufacturing methods, materials to reduce production lead-time and costs, modeling and simulation software improvements and enhancements and improvements to post processing methods. We continued to see positive results from these projects, Ceramic Coatings for Forging Furnaces reported a 42 percent reduction in Natural Gas usage and a 64 percent reduction in recovery time for a forging furnace which was coated as part of this project. In FY 2020 the DLA Forging R&amp;D funding baseline and out years were reduced by approximately 25 percent, which reduced the number of projects awarded in FY 2020. These projects will be in alignment with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter, while working to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap A few projects successfully finished and continue working on implementing the new technologies, such as the mobile Intensive Quench project. As well as the Innovations in Repair of Forging dies project that finished and will continue working with their industry partners to transition this technology to the forging industry.</p> <p>The Battery Network (BATTNET) program continued projects for improving the production readiness and technology transition for soldier and system batteries within the DLA supply chain. The program prototyped and tested several versions of Bipolar lead-acid technology in major system formats to reduce battery cost and weight, improve battery energy and power, and extend battery shelf life and operational life – a new effort was launched for aviation batteries. The program continued a major project for improving the capacity and capabilities of lithium anode production for current non-rechargeable batteries and future rechargeable</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>batteries. The program continued managing projects for transitioning high value solid-state electrolyte, as well as UV-curable polymer, technology into key soldier and system lithium-ion batteries. The program continued to initiate and manage several SBIR projects in advanced lithium-ion battery manufacturing, recycling, and rapid materials synthesis.</p> <p>The Additive Manufacturing (AM) program, using market research, requests for information/proposals, Broad Agency Announcements (BAA), DLA R&amp;D funded analysis of alternatives for the best cognitive computing solutions to integrate information from several logistics, engineering, legal, and supplier data sources into an efficient AM decisional framework. The AM Initial General Acceptance (AMIGA) tool was developed to assist DLA procurement and engineering personnel in making a AM procurement decisions by automating the initial assessment of DLA-managed items, particularly hard-to-procure items, based on item characteristics, business, logistics, and additive manufacturing technology criteria. While AMIGA demonstrated a useful initial search capability for potential AM procurement candidates, the DLA Technical &amp; Quality Assurance Division, after thorough consideration, was not able to approve full transition into operations at this time due to certain existing constraints and emerging risks, such as funding availability and integration with major DLA IT systems as modernization initiatives are being developed. Nevertheless, these analytics efforts helped to identify unseen patterns in the manufacturing data that will help shape an efficient AM distributive manufacturing ecosystem. The Additive Manufacturing (AM) program also financed collaborative technical efforts from the military departments, industry, and academic institutions that enhance the customer engagement with the AM product management workflows. Overall DLA Enterprise AM efforts to identify the best AM applications to achieve precise robustness-repeatability-reproducibility of part fabrication using an AM technical data package in a distributed manufacturing setting were impacted by the reduction of approximately \$0.943 million resulting from overall ManTech \$3.020 million in directed reductions.</p> <p><b>FY 2022 Plans:</b></p> <p>The Subsistence Network (SUBNET) program will continue to research and execute short-term innovative projects to improve the subsistence supply chain in FY 2022. The SUBNET program will incorporate emerging technologies to address stakeholders' requirements as well as leverage supply chain innovations, best practices, and industry trends. The SUBNET program will conduct pilot test in the areas of modernization and readiness analysis of joint food management system and improving subsistence visibility through enhancing receipting and barcoding at an OCONUS location. The SUBNET plans to conduct research in FY 2022 regarding data analytics, wireless sensor mesh technology, and robotic automation in military dining facilities. The program will also pursue small business innovation research topics in subsistence and work with community partners (military services, academia, and industry) to conduct research and test and evaluate initiatives in the subsistence supply chain.</p> <p>The Casting program will continue to monitor awarded projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The program also plans to solicit for new projects to start in FY 2022 as existing projects wind down, are completed and transitioned. The Casting program will continue working with</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>Academia, industry, and industry associations to continually identify future development and technical needs in alignment with the DOD and DLA to include appropriate strategic plans and roadmaps.</p> <p>The Forging program will continue to monitor projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. These projects focus on improving manufacturing processes and alternative forging manufacturing methods, materials to reduce production lead-time and costs modeling and simulation software improvements and enhancements and improvements to post processing methods. These projects align with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter.</p> <p>The Battery Network (BATTNET) program will continue to execute projects for improving the production readiness, transition, and standardization of soldier and system batteries within the DLA supply chain. Projects will leverage new battery manufacturing technologies for the supply chain that have been developed by industry – advanced electrodes production, low-cost materials production or recycling, and advanced performance cells. The program intends to leverage deep-discharge, long cycle life, safe lithium-ion capabilities with the US Military Services to replace obsolete nickel-cadmium batteries in naval and aviation systems. And the program will continue the manufacturing technology projects in bipolar lead-acid batteries and lithium-ion batteries for the benefit of the Defense supply chain.</p> <p>The DLA R&amp;D Additive Manufacturing (AM) program will continue to collaborate with the Military Services, DLA’s Process Owners and Major Subordinate Commands (MSC) to identify technologies that assist with AM enterprise-wide processes that align DLA's identification of hard-to-source parts requirements with MILSVC cognizant engineer authorities and AM manufacturing capabilities in order to obtain qualified AM parts that support a DLA customer. The convergence of authoritative data in the DLA Joint AM Model Exchange (JAMMEX) platform will improve DLA's position to exercise quality assurance of AM parts flowing into the DOD supply chains. The DLA R&amp;D AM projects will explore innovative remote inspection capabilities that enable interoperable quality control inspections among DLA, the Military Service cognizant engineers and the manufacturing base. The convergence of automated requirements' tools based on DOD consensus of AM risk categorization criteria, JAMMEX authoritative data, and remote inspection technologies can render repeatable and accelerated qualifications processes. Reduction of the AM baseline will commensurately impact the AM Program’s ability to produce solutions for enterprise processes and procedures needed to integrate AM into the supply chain and transition benefits and findings of AM R&amp;D projects into the DLA supply chain processes. With limited budget, the AM R&amp;D program can only perform sub-optimized part to part projects under the authority of established support agreements with our Warfighting customers and partners.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Funding and efforts move to the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	15.864	12.763	-

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Improve Steel Performance Initiative in Castings <i>FY 2021 Accomplishments:</i> Continued efforts that began under the FY 2020 Steel Performance Initiative that includes numerous projects within the following areas of focus: Steel Alloy Development and Manufacturing Technology; Integrated Process and Performance Modeling; Advanced Testing & Qualification; Improved Steel Casting Tooling; and Optimized Processing of Steel Materials. <i>FY 2022 Plans:</i> Steel Technology Advanced Research (STAR): Develop hybrid and Industry 4.0 manufacturing technologies along with modeling and quantitative nondestructive testing (QNDT) to advance predictive performance design.	10.000	10.000
<b>Congressional Add:</b> Supply Chain adoption of additive manufacturing, automation, and robotics in Castings <i>FY 2021 Accomplishments:</i> In February 2022, the contract was awarded to begin work on documenting the benefits and applications of automation, robotics, and additive manufacturing, particularly to publicize to small-to-medium enterprises to ensure the technology is better understood and utilized in the optimal capacity.	10.000	-
<b>Congressional Add:</b> Additive Manufacturing Castings Model <i>FY 2021 Accomplishments:</i> In February 2022, the contract was awarded to begin work on documenting the benefits and methodology of Additive Manufacturing (AM) applications to the initial casting designs which will be used to publicize to the casting industry.	5.000	-
<b>Congressional Add:</b> PFAS Compounds In Food Packaging Materials Research <i>FY 2022 Plans:</i> Determine where PFAS is originating in the assembly process through the analysis of the raw material (e.g., film) used for Meals Ready to Eat pouches and throughout the assembly line.	-	3.000
<b>Congressional Adds Subtotals</b>	25.000	13.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBMP / <i>Improving Industrial Base Manufacturing Processes (formerly Material Availability)</i>

**C. Other Program Funding Summary (\$ in Millions)**

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>				<b>Project (Number/Name)</b> AAA / <i>Maintaining Viable Supply Sources (formerly High Quality Sources)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
AAA: <i>Maintaining Viable Supply Sources (formerly High Quality Sources)</i>	64.853	15.864	16.950	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Maintaining Viable Supply Sources (MVSS) Strategic Focus Area (SFA) consists of projects undertaken to assure that the industrial base can respond to DLA requirements and DLA can fill military customers' material requirements reliably and consistently. Benefits include eliminating cancelled requisitions returned to customers as "non-procurable." This strategic focus area includes within its scope the Advanced Microcircuit Emulation (AME) program.

The Program Roadmap has two major thrusts areas: Digital Microcircuits and Linear/Analog Microcircuits. The program has several projects addressing specific classes of obsolescent microcircuit technologies. Over the past several years, obsolescence in this class of microcircuits has greatly increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 2020 and beyond. Without the technologies planned on the AME Roadmap, DLA will not be able to support DOD's requirements for high quality spare parts for critical electronic systems and subsystems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Maintaining Viable Supply Sources (formerly High Quality Sources)	15.864	16.950	-
<b>Description:</b> The Advanced Microcircuit Emulation (AME) program completed and transitioned its first Linear/Analog technology project, 20 Volt Operational Amplifier, into full scale production. It also completed and transitioned additional digital technology projects into full scale production. The first addresses TTL compatible CMOS microcircuits and the second addresses Dual-Port Memory microcircuits. AME continued development of Additive Manufacturing techniques to address Microcircuit Cases. It began additional Linear/Analog emulation projects for types/groups of parts, prioritized based on customer requirements.			
<b>FY 2022 Plans:</b> The Advanced Microcircuit Emulation (AME) program will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. It will begin developing dual-voltage digital microcircuit technology to support re-hosting Field-Programmable Gate Array (FPGA) microcircuits. It will continue additional Linear/Analog and Digital emulation projects for types/groups of parts, prioritized based on customer requirements. It will continue development of Additive Manufacturing techniques to address obsolescence in Microcircuit Cases.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> AAA / <i>Maintaining Viable Supply Sources (formerly High Quality Sources)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Funding and efforts move to the Industrial Base and Aging Weapon System Support Line of Effort (R&D LOE 1) focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	15.864	16.950	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>				<b>Project (Number/Name)</b> OOO / <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
OOO: <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>	21.648	9.904	38.549	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Improving Technical and Logistics Information (ITLI) SFA projects improve and facilitate the communication of technical and logistics information among industry, DLA’s military customers and DLA. This SFA includes the Military Unique Sustainment Technology (MUST), the Defense Logistics Information Research (DLIR), and the Emergent Manufacturing Technology (EMT) portfolios within its scope.

The Military Unique Sustainment Technology (MUST) program addresses Government Accountability Office (GAO) Report 12-707 recommendations for DOD to establish a “knowledge-based approach” to define, communicate, and collaborate on military unique combat uniforms and individual equipment (CUIE) requirements. DLA has the responsibility to manage and maintain the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop, and adopt technologies that can significantly improve the joint process from transitioning new item development to DLA sustainment and operations. The Program focuses on technologies that will transform the military CUIE supply chain from an “electronic paper” (i.e. PDF/MS Word) based manual environment, into a knowledge-based model driven environment. This approach will result in seamlessly communicating military unique technical requirements throughout the end-to-end supply chain, leading toward a Model Based Enterprise.

The Defense Logistics Information Research (DLIR) program researches core technologies to improve the quality, security, and interoperability of logistics data acquisition and management to enable and streamline DLA operations. DLA enables transformation of business practices and methodologies as the data for weapons systems evolve from traditional formats and delivery methods (such as two-dimensional images and PDF formats) to newer, more innovative methods (such as three-dimensional solid models, object-oriented databases, service-oriented architecture (SOA) and Web 3C standards). This transformational shift for DLA is driven by the Model-Based Enterprise (MBE) approach, the way industry is delivering design and development data for weapon systems to the Military Services and the way the Military Services in turn manage and provide the data to DLA. DLA Logistics Operations, DLA Acquisition, DLA Tech/Quality, and DLA’s Major Subordinate Commands (MSCs) are key stakeholders in the DLIR initiatives to modernize the representation and delivery of weapons systems data.

The EMT program addresses emerging and out of cycle requirements that always occur as DLA strives to maintain readiness of the aging weapon systems.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)	5.904	5.549	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> OOO / <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

**Description:** Military Unique Sustainment Technology (MUST) I contract ended in June 2021. It delivered two working prototypes and accompanying documentation ready to transition from R&D: Supply Request Package Tool and Source Sampling Test Reporting Tool. The Supply Request Package (SRP) Tool captures all new item requirements information. The SRP Tool has been adopted by all the Military Services and other DLA customers for new item introduction to DLA sustainment. The Source Sampling Tool captures the test results from the independent commercial laboratories used by Troop Support Clothing and Textile prime contractors. In addition, an initial prototype of the Digital Model library (DML) was developed. The DML is the repository for CUIE digital technical data models and related industry standard models. Competitive contract awards for MUST II, the MUST I follow-on, were made in Q2, FY 2021.

The Defense Logistics Information Research (DLIR) program continued the Connecting the Model-Based Enterprise (MBE) project to modernize the process to obtain current Technical Data Packages (TDPs) directly from the Product Lifecycle Management (PLM) systems of the Military Services' ESAs and PMOs. DLIR also developed standard guidance for Military Service organizations, including the ESAs and PMOs, to guide and influence generation of 3D, model based TDPs that will support DLA and its supplier needs. DLIR explored the ability of commercial Digital Rights Management (DRM) tools and techniques to improve the security of TDPs and support the eventual development of functional requirements for the "Catalog of the Future" (COTF) by identifying and prototyping new cleansing tools and methods while simultaneously cleansing data. DLIR continued support to DLA's Technical Data Management Transformation (TDMT) efforts to determine the future state IT architecture design and continue to collaborate with USACE to develop a cyber-physical model that will evaluate the resiliency of OT systems after a cyber-attack. Additionally, DLIR began efforts in building the digital thread partnering with the Air Force KC135 and the Army's Paladin Artillery Systems.

The Emerging Manufacturing Technology (EMT) program invested in Advanced Manufacturing solutions for DLA's support to DOD and Federal Government contingency operations, such as PPE and decontamination products and materials for COVID-19 response. In addition, EMT provided funding Critical to the transition and commercialization of successful Small Business Innovation Research (SBIR) projects such as emerging magnetic braking technologies, addressing strategic materials shortage/ risk, and advancements in Digital Manufacturing.

**FY 2022 Plans:**

The Military Unique Sustainment Technology (MUST) II focus is to integrate the MUST I developed tools into the DML using an Application Program Interface (API). The SpecFlow tool will be a new development for capturing and managing Interim Changes (IC) to the technical requirements. MUST II plans to develop more powerful AI based tools to incorporate ICs into the base models, and to extract technical requirements from the digital models. MUST II will work with the Services to promote the use

FY 2021	FY 2022	FY 2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> OOO / <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>of data formats compatible with the digital document model paradigm. The final development of the DML will be completed and DML document models will become the authoritative source for CUIE technical requirements and provide common visibility to all stakeholders. These models can be efficiently managed (queried, analyzed, updated) and will be capable of supplying data directly to CUIE test plans and manufacturing processes. Joint processes will be reengineered to take advantage of the digital model data. For example, use in the Product Quality Deficiency Report. Prototype tools and interfaces will also be developed to improve digital model utility for the industrial base.</p> <p>The Defense Logistics Information Research (DLIR) program will continue to support DLA's Technical Data Management Transformation (TDMT) efforts to determine IT architecture needs and to ensure DLA's MBE architecture meets/exceeds DOD compliance objectives and integrates with Military Services irrespective of platforms. DLIR will also explore Digital Manufacturing Enterprise models that shift procurement strategy orientation from items to on-demand manufacturing capacity. This contracted capacity can be tapped repeatedly on demand using an existing procurement process, rather than triggering multiple individual processes. DLIR will continue exploring Digital Rights Management (DRM) tools and techniques to improve the security of TDPs and support the eventual development of functional requirements for the "Catalog of the Future" (COTF) by identifying and prototyping new cleansing tools and methods while simultaneously cleansing data. Finally, DLIR will collaborate with MxD focusing on cybersecurity and building the digital thread continuing efforts leveraging the Air Force KC135 and the Army's Paladin Artillery Systems to include converting selected NSNs to 3D, model-based formats and providing access to a low-cost, cloud-based, Product Lifecycle Management (PLM)/Product Data Management (PDM) system(s).</p> <p>The EMT program will continue to enable DLA's investigation of new disruptive technology advances that may be implemented in the nearer term, without degrading well established program efforts. This program enables the Agency to advance those technologies sooner in order to provide to the warfighter earlier. Small Business Innovation Research (SBIR) Phase III efforts (which cannot be funded with SBIR funds) are a prime example of activities that will be financed with SBIR funds, examples include emerging magnetic braking technologies, and addressing strategic materials shortage/risk. Efforts will continue to advance Digital Manufacturing by developing a comprehensive approach to take advantage of integrated, computer-based systems of simulation, three-dimensional (3D) visualization, analytics and various collaboration tools to create and manufacture products to support the warfighter.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding and efforts move to the the 3D Technical Data Modernization / Model Based Enterprise LOE (R&amp;D LOE 2) focused on three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.904	5.549	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> OOO / <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> Rare Earth Magnets</p> <p><b>FY 2021 Accomplishments:</b> Explored domestic sources to build domestic capacity for recycled rare earth magnets critical to weapon system sustainment which will reduce foreign dependence, and supply chain vulnerability to price increases and access.</p>	4.000	-
<p><b>Congressional Add:</b> Supply Chain For Readiness &amp; Sustainment</p> <p><b>FY 2022 Plans:</b> Significantly increase the number of small-to-midsize manufacturers (SMMs) and their adoption of digital manufacturing, automation, and robotics metal-casting (Industry 4.0) technologies improving the security and resiliency of the defense industrial base.</p>	-	8.000
<p><b>Congressional Add:</b> Rare Earth Recovery Technology</p> <p><b>FY 2022 Plans:</b> Demonstrate a process of recovering Rare Earth Elements (REEs) from electronic waste(e-waste) materials from various commercially available sources, including DOD e-waste. Successful completion of this project would assist DOD in achieving its long-term goal of reducing foreign reliance on REEs.</p>	-	2.000
<p><b>Congressional Add:</b> Conversion Of Titanium Scrap</p> <p><b>FY 2022 Plans:</b> Demonstrate the concept of converting titanium scrap to premium powder products for 3D printing and powder metallurgy. Titanium is a strategic material and critical for DOD applications.</p>	-	5.000
<p><b>Congressional Add:</b> Graphite Materials</p> <p><b>FY 2022 Plans:</b> Support domestic production of synthetic graphite precursor material for batteries and other military applications. This would help in supporting US graphite industry and securing DOD supply chain for various weapon systems.</p>	-	9.000
<p><b>Congressional Add:</b> Nanostructured Iron Nitride Permanent Magnets</p> <p><b>FY 2022 Plans:</b> Advance the technology and manufacturing readiness of non-rare-earth containing iron nitride permanent magnets for use in military electric components and systems.</p>	-	7.000
<p><b>Congressional Add:</b> Modeling &amp; Simulation Competition</p> <p><b>FY 2022 Plans:</b> DLA Legislative Affairs submitted clarification (intent &amp; recipient) request to the Office of the Under Secretary of Defense for Acquisition and Sustainment (OUSD (A&amp;S)) on 3/23/2022 for incorporation into</p>	-	2.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> OOO / <i>Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)</i>

the Comptroller's request to the HAC and SAC. As clarification is received, DLA will provide statement detailing execution plans.	<b>FY 2021</b>	<b>FY 2022</b>
	<b>Congressional Adds Subtotals</b>	4.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>				<b>Project (Number/Name)</b> IBA / <i>Industrial Base &amp; Aging Weapon System Support</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
IBA: <i>Industrial Base &amp; Aging Weapon System Support</i>	-	0.000	0.000	35.222	-	35.222	35.509	36.352	37.064	37.809	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Industrial Base (IB) and Aging Weapon System Support Line of Effort (LOE 1) seeks to implement innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems through the following objectives:

1. Viable and Responsive Industrial Base: maximize Defense Industrial Base capability and capacity and improve availability, quality, and affordability to support the Warfighter.
2. Obsolescence Solutions: establish a trusted manufacturing capability for qualified microcircuits to support DOD weapon system lifecycles.
3. Advanced Manufacturing: leverage advanced manufacturing capabilities to introduce and integrate additive and advanced manufacturing concepts into the DOD supply chain.

The portfolios within the IB and Aging Weapons System Support LOE include food-service supply chain solutions (Subsistence Network), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advanced System Technology), Batteries (Battery Network), Additive Manufacturing (AM), and Advanced Microcircuit Emulation (AME).

The Subsistence Network (SUBNET) program focuses on solutions to develop and promote manufacturing improvements in the subsistence supply chain. The program's expanded areas of interest include: combat rations, food equipment, field feeding solutions, food footprint, food innovations, food safety and defense developments, garrison feeding, nutrition and health, storage and packing solutions, surge and sustainment support, and water security. SUBNET forms a community of practice with Military Services, U.S. Department of Agriculture, Natick Soldier Research Development, and Engineering Center; Academia, and Industry to research and promote manufacturing improvements in the Subsistence Supply Chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. Desired outcomes include: reduced cost, increased efficiencies, improved processes, enhanced quality, and improved surge demand capabilities.

The Casting program works to ensure a stable, reliable, and competitive domestic casting industrial base supporting the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). The casting program works with industry, universities, and the Casting Industry Associations to identify projects that improve the materials, processes and business practices of the nation's foundry industry. The program aligns projects with strategic issues and identified focus areas within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the casting industry. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Cast parts are about two percent of National Stock Numbered Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are castings. This program includes tasks that focus on developing new capabilities in the areas of inspection, materials, processes, modeling, and design. Once

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBA / <i>Industrial Base &amp; Aging Weapon System Support</i>
--	---	--

developed, these capabilities will support the foundry industry, where the technologies will be tested and implemented, most often in conjunction with the casting industry associations. These advancements improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forging program works to ensure a stable, reliable, and competitive domestic forging industrial base for the weapon system needs of the Department of Defense (DOD) and the Defense Logistics Agency (DLA). Working with industry, universities, and the Forging Industry Associations to identify projects that improve the materials, processes and business practices of the nation’s forging industry. The program aligns its projects with strategic issues and focus areas identified within the DLA and DOD. Guidance for these projects comes from the DLA Strategic Plan and input from the forging industry. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA’s backorders or unfilled orders (UFOs). Forged parts are about two percent of National Stock Number (NSN) Class IX parts but represent about five percent of all backorders, and when only the oldest backorders are considered, up to 10 percent are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where these technologies will be tested and implemented in conjunction with the forging industry associations. These advancements improve the forging supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Battery Network (BATTNET) program objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. BATTNET conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher a Manufacturing Readiness Level (MRL) for specific groups of batteries. BATTNET also focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of Service approved batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Additive Manufacturing (AM) program objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA is pursuing all AM technology as a lead-time and inventory reduction enabler. The AM effort pursues alternate means of supply for products that are otherwise non-procurable or susceptible to procurement issues due to an unresponsive manufacturing vendor base. The AM effort includes the identification of AM candidates among the population of products that are needed but hard to obtain, costly or have long manufacturing lead times. The AM effort requires management of 3D digital technical and manufacturing data. In addition, the AM effort includes the development of the processes that will tie the designers, engineers, maintainers, logisticians, procurement managers and the vendor base into a seamless AM procurement stream. Potential benefits include products that can address an unfulfilled Warfighter readiness need by reducing production lead times, production costs, storage costs, transportation costs and in some cases fuel consumption due to lighter design and material options. DLA R&D will leverage these efforts with Industry, Academia and ongoing Military Service-level agreements (Army, Navy, Marine Corps, Air Force), Oak Ridge National Laboratory (ORNL) and the Department of Energy.

Advanced Microcircuit Emulation (AME) program Roadmap has two major thrusts areas: Digital Microcircuits and Linear/Analog Microcircuits. The program has several projects addressing specific classes of obsolescent microcircuit technologies. Over the past several years, obsolescence in this class of microcircuits has greatly

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBA / <i>Industrial Base &amp; Aging Weapon System Support</i>
--	---	--

increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 2020 and beyond. Without the technologies planned on the AME Roadmap, DLA will not be able to support DOD's requirements for high quality spare parts for critical electronic systems and subsystems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Industrial Base (IB) and Aging Weapon System Support Line of Effort (R&amp;D LOE 1)</p> <p><b>Description:</b> Funding and efforts for the Industrial Base and Aging Weapon System Support Line of Effort (R&amp;D LOE 1) begins in FY 2023.</p> <p><b>FY 2023 Plans:</b>                      The Subsistence Network (SUBNET) program will continue to develop and promote manufacturing improvements with R&amp;D projects that leverage emerging technologies and innovations. The SUBNET program will work to improve as well as incorporate best practices and industry trends discovered through research that are crucial to the subsistence supply chain. SUBNET plans to research and execute projects in FY 2023 in the areas of modernization and readiness analysis for joint food management phase V, data analytics in the subsistence supply chain, research innovative commercial off the shelf food items, deployable group ration assembly/kitting system for unitized group rations and continued piloting the improving subsistence visibility project. The program will also continue to pursue Small Business Innovation Research (SBIR) topics in Subsistence.</p> <p>The Casting program will work to maintain its alignment with the DLA Strategic plan and U.S. Casting Industry Roadmap. These provide guidance as to where the focus of development should be. The casting program will continue to focus on key areas of need which include workforce development to help sustain a stable supply chain for DLA, modeling and simulation tools, die lubricants and coatings to increase quality and decrease environmental impacts and automation and robotics to reduce lead time and increase safety. The Casting program will continue to monitor projects that are awarded in FY 2022 that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. The Casting program works with Academia, industry, and industry associations to continually identify future development and technical needs in alignment with the DOD and DLA.</p> <p>The Forging program will continue to monitor projects that research, develop and deploy innovative and technical solutions to ensure a viable and competitive domestic industrial base. These projects focus on improving manufacturing processes and alternative forging manufacturing methods, materials to reduce production lead-time and costs, modeling and simulation software improvements and enhancements and improvements to post processing methods. These projects align with the needs of the DOD and DLA aimed and supporting and fulfilling the needs of the warfighter.</p> <p>The Battery Network (BATTNET) program will continue to execute projects for improving the production readiness, transition, and standardization of soldier and system batteries within the DLA supply chain. Projects will leverage new battery manufacturing</p>	0.000	-	35.222

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> IBA / <i>Industrial Base &amp; Aging Weapon System Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>technologies for the supply chain that have been developed by industry – advanced electrodes production, low-cost materials production or recycling, and advanced performance cells.</p> <p>The Additive Manufacturing (AM) program will use the lessons learned during the Joint Additive Manufacturing Acceptability (JAMA) efforts in the areas of AM parts prioritization, data formats, acceptability criteria and leverage emerging digital business practices, stemming from the information technology modernization efforts in DLA to engage in the testing and prototyping of customer engagement technology peripheral digital services offerings to address the requirements generated at the convergences of the MILSVC digital experiences and DLA digital operations in order to adjust DLA’s business models. DLA R&amp;D AM will also launch the needed test beds to propel the expansion of the JAMMEX capability to include vendor 3D models (industry developed) to establish a repeatable process for AM vendor bids.</p> <p>The Advanced Microcircuit Emulation (AME) program will continue to develop its long-term technology roadmap. It will also continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. It will continue to develop capabilities in digital and analog/linear technologies.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b>                      -Funding and efforts for the Industrial Base and Aging Weapon System Support Line of Effort (R&amp;D LOE 1) begins in FY 2023 focused on innovative and proactive technology solutions to ensure a robust, reliable industrial base that provides affordable and previously hard-to-procure critical parts for DOD weapon systems.                      -Additionally, the overall R&amp;D LOE 1 baseline was increased by approximately \$1.500 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	35.222

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>				<b>Project (Number/Name)</b> TDM / <i>3D Tech Data Modernization / Model Based Enterprise</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
TDM: <i>3D Tech Data Modernization / Model Based Enterprise</i>	-	0.000	0.000	10.944	-	10.944	9.648	9.821	10.002	10.108	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&D LOE 2) includes efforts to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. This LOE includes the Military Unique Sustainment Technology (MUST), the Defense Logistics Information Research (DLIR), and the Emergent Manufacturing Technology (EMT) portfolios. A primary focus of this SFA is to capitalize on the emerging “Model Based Enterprise” paradigm and the semantic web as an enabler to a logistics system that is smart and connected up and down the supply chain and across all DLA Customers and suppliers. A major focus is to transform DOD engineering data from two-dimensional paper-based products to three-dimensional computer-based models, and to develop processes to move from “electronic paper” (i.e. PDF files) to technical data files that can interface directly with industries’ engineering systems. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production. Objectives for this LOE include:

1. Transform technical data into modern, machine-usable, neutral formats: support DOD’s digital modernization efforts and provide significant readiness improvements.
2. Create a model-enabled knowledge base shared among DLA, the Military Services and industry: streamline the delivery of accurate requirements and high-quality material and end-items throughout the supply chain.

The Military Unique Sustainment Technology (MUST) program addresses Government Accountability Office (GAO) Report 12-707 recommendations for DOD to establish a “knowledge-based approach” to define, communicate, and collaborate on military unique combat uniforms and individual equipment (CUIE) requirements. DLA has the responsibility to manage and maintain the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop, and adopt technologies that can significantly improve the joint process from transitioning new item development to DLA sustainment and operations. The Program focuses on technologies that will transform the military CUIE supply chain from an “electronic paper” (i.e. PDF/MS Word) based manual environment, into a knowledge-based model driven environment. This approach will result in seamlessly communicating military unique technical requirements throughout the end-to-end supply chain, leading toward a Model Based Enterprise.

The Defense Logistics Information Research (DLIR) program researches core technologies to improve the quality, security, and interoperability of logistics data acquisition and management to enable and streamline DLA operations. DLA enables transformation of business practices and methodologies as the data for weapons systems evolve from traditional formats and delivery methods (such as two-dimensional images and PDF formats) to newer, more innovative methods (such as three-dimensional solid models, object-oriented databases, service-oriented architecture (SOA) and Web 3C standards). This transformational shift for DLA is driven by the Model-Based Enterprise (MBE) approach, the way industry is delivering design and development data for weapon systems to the Military Services and the way the

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> TDM / <i>3D Tech Data Modernization / Model Based Enterprise</i>
--	---	--

Military Services in turn manage and provide the data to DLA. DLA Logistics Operations, DLA Acquisition, DLA Tech/Quality, and DLA's Major Subordinate Commands (MSCs) are key stakeholders in the DLIR initiatives to modernize the representation and delivery of weapons systems data.

The EMT program addresses emerging and out of cycle requirements that always occur as DLA strives to maintain the readiness of the aging weapon systems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&amp;D LOE 2)</p> <p><b>Description:</b> Funding and efforts for the Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&amp;D LOE 2) begins in FY 2023.</p> <p><b>FY 2023 Plans:</b> The Military Unique Sustainment Technology II (MUST II) program will deliver the SpecFlow tool working prototype and the DML working prototype for transition into an operational capability. Technical data content in the DML will continue to be expanded and the AI needed to make the DML information available throughout the supply chain will be enhanced. The major effort of integration into Military Services development organizations and the industrial base will be undertaken.</p> <p>The Defense Logistics Information Research (DLIR) program will continue to support DLA's Technical Data Management Transformation (TDMT) efforts to determine IT architecture needs and to ensure DLA's MBE architecture meets/exceeds DOD compliance objectives and integrates with Military Services irrespective of platforms. DLIR will continue to explore Digital Manufacturing Enterprise models that shift procurement strategy to on-demand manufacturing capacity data and continue collaboration with MxD focusing on cybersecurity and building the digital thread completing the conversions of selected NSNs to 3D, model-based formats, producing first articles, and demonstrating to the cognizant Engineering Support Activity (ESA) that the model-based TDP can be the authoritative TDP.</p> <p>The Emerging Manufacturing Technology (EMT) program will continue to enable DLA's investigation of new disruptive technology advances that may be implemented in the nearer term, without degrading well established program efforts. An additional \$2.5 million was added for Critical Chemical, Strategic Material Related Efforts.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> -Funding and efforts for the Three-dimensional (3D) Technical Data Modernization (TDM) / Model-Based Enterprise (MBE) (R&amp;D LOE 2) begins in FY 2023 focused on three-dimensional technical data and knowledge-based tools to transform and streamline supply system responsiveness for DLA-managed commodities. -The overall R&amp;D LOE 2 baseline was increased by approximately \$1.000 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's technical data management and predictive analytics capability and lay the foundation for next generation Smart Manufacturing.</p>	0.000	-	10.944

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603680S / <i>Manufacturing Technology Program (ManTech)</i>	<b>Project (Number/Name)</b> TDM / <i>3D Tech Data Modernization / Model Based Enterprise</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
-An additional \$2.5 million was added for Critical Chemical, Strategic Material Related Efforts.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	10.944

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	81.268	14.507	11.987	13.663	-	13.663	13.994	14.287	14.553	14.822	Continuing	Continuing
EMM: <i>Enhancing Analysis, Modeling, and Decision Support (formerly Analytic &amp; Decision Support)</i>	15.123	2.215	3.581	-	-	-	-	-	-	0.000	Continuing	Continuing
GLTD: <i>Improving Logistics Processes (formerly Logistics Process)</i>	25.507	3.554	4.939	-	-	-	-	-	-	0.000	Continuing	Continuing
04: <i>Emergent Logistics R&amp;D Requirements (formerly Innovative Products &amp; Services for DLA Customers)</i>	40.638	8.738	3.467	-	-	-	-	-	-	0.000	Continuing	Continuing
LOI: <i>Logistics Operations Innovation</i>	-	0.000	0.000	6.088	-	6.088	6.353	6.485	6.605	6.726	Continuing	Continuing
PAM: <i>Predictive Analytics / Modeling &amp; Simulation</i>	-	0.000	0.000	3.872	-	3.872	3.881	3.973	4.051	4.129	Continuing	Continuing
SWM: <i>Smart-Warehouse Modernization</i>	-	0.000	0.000	3.703	-	3.703	3.760	3.829	3.897	3.967	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Logistics Agency (DLA) is responsible for providing to the Military Services, other Federal Agencies, as well as combined and allied forces, the full spectrum of logistics, acquisition and technical services. DLA sources and provides virtually 100 percent of the consumable items the military services need to operate – including food, uniforms, fuel and energy, medical supplies, construction and barrier materials, equipment, and more than 85 percent of the military’s spare parts. DLA also provides logistics related services such as logistics information data management, the reutilization of military equipment, as well as documents automation and production services. DLA’s Logistics Research and Development (Log R&D) program helps ensure that advanced logistics concepts and business processes are used to accomplish the agency’s mission with the leanest possible infrastructure. Log R&D identifies the best commercial business practices and tailors them, as necessary, into the most effective business processes for the agency. Log R&D develops and demonstrates high risk, high payoff technology that provides a significantly higher level of support at the lowest possible costs.

Beginning in FY 2023, the DLA Log R&D Program Element shifts from three Strategic Focus Areas to three Lines of Effort (LOEs): Predictive Analytics, Modeling & Simulation (R&D LOE 3), Logistics Operations Innovation (R&D LOE 4), and Smart Warehouse Modernization (R&D LOE 5). These LOEs are closely aligned to

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Logistics Agency Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>
---	--

documented and tracked priorities specified in the most current DLA Strategic Plan, that calls for Digital Business Transformation as one of three critical capabilities to achieve DLA’s business goals of enhancing performance, reducing costs, and becoming more predictive and data driven. This critical capability also seeks to transform systems and processes to improve data transparency, reliability, and security for our employees, customers, and suppliers. DLA’s initiatives within this critical capability align with the interim National Security Strategy (NSS) by emphasizing the importance of harnessing rapid emerging technologies that will transform how we do business.

- Predictive Analytics, Modeling & Simulation (R&D LOE 3): R&D efforts develop predictive analytics solutions using data and Artificial Intelligence/Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions. Primarily focused on the DLA Strategic Plan Critical Capability C: Digital Business Transformation, these efforts cut across DLA Strategic Plan LOE 1: Warfighter Always, LOE 2: Trusted Mission Partner, and LOE 4: Modernized Acquisition and Supply Chain Management, supporting the warfighter through the Weapon System Sustainment (WSS) portfolio of projects.

- Logistics Operations Innovation (R&D LOE 4): R&D efforts to cultivate integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment. This LOE focuses on supporting the DLA LOE 4: Modernized Acquisition and Supply Chain Management, while also investment in cross-cutting supply chain efforts, to include fuel quality and alternative fuel sources, or emergent needs that impact DLA’s ability to effectively support the warfighter through the following portfolios: Energy Readiness Program (ERP), Acquisition Modernization Technology Research (AMTR), and Supply Chain Management (SCM).

- Smart Warehouse Modernization (R&D LOE 5): R&D efforts to modernize distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation. This LOE is dedicated to one of the primary focus areas of DLA’s Critical Capability for Digital Business Transformation: warehousing modernization through efforts within the Strategic Distribution and Disposition (SDD) portfolio of projects.

Until the shift from SFAs to LOEs in FY 2023, DLA LOG R&D remains aligned into three Strategic Focus Areas (SFAs) for FY 2021 and FY 2022: 1) Enhancing Analysis, Modeling, and Decision Support (EAMD), 2) Improving Logistics Processes (ILP), 3) Emergent Logistics R&D Requirements (ELR).

- The EAMD SFA includes efforts to develop decision support tools, such as modeling, simulation, and other analytics to improve operational strategy decision-making, forecasting, and procurement, which support more effective and efficient responses to emerging market and customer requirements.

- The ILP SFA includes efforts to develop and implement advanced technology in logistics processes over and above current baseline systems.

- The ELR SFA includes efforts to support emergent Logistics R&D requirements that arise out of the budget cycle. These out of cycle requirements always occur. This SFA begins new projects in a timely manner without disrupting ongoing projects by funds reallocation. This SFA scope includes all DLA supply chains and logistics processes.

DLA’s focus for this budget cycle highlights advanced capabilities in digital and technical data modernization, management and analytics to transform DLA Business Processes to lower the Agency’s material acquisition and operation costs along with improving weapons systems support. This effort spans across both DLA R&D Program Elements and multiple R&D LOEs, impacting across the DOD Joint Defense Manufacturing Technology Panel and DLA Enterprise logistics processes.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	10.235	12.418	0.000	-	0.000
Current President's Budget	14.507	11.987	13.663	-	13.663
Total Adjustments	4.272	-0.431	13.663	-	13.663
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	5.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.200	-			
• SBIR/STTR Transfer	-0.528	-0.431			
• Adjustments to Budget Year	-	-	13.663	-	13.663

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023:

-DLA Logistics R&D baseline was increased by \$0.697 million for an internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> EMM / <i>Enhancing Analysis, Modeling, and Decision Support (formerly Analytic &amp; Decision Support)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
EMM: <i>Enhancing Analysis, Modeling, and Decision Support (formerly Analytic &amp; Decision Support)</i>	15.123	2.215	3.581	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This Strategic Focus Area (SFA) funds developments in advanced analytical tools, modeling, and simulation of logistics and supply chain processes. These tools will improve DLA forecasting and procurement strategy decisions and lead to faster and more flexible responsiveness to emerging market and customer requirements. This SFA consists of two programs:

The Strategic Distribution & Disposition (SDD) Program collaborates with DLA Distribution and Disposition Services to identify legacy capabilities that are inadequate for emerging worldwide distribution and disposition requirements. A key objective of the SDD Program is to anticipate, assess, and meet the current and future Warfighter requirements by leveraging R&D to infuse innovation into solutions. Long-term objectives include mitigating the DOD Supply Chain Management high risk issues identified by the Government Accountability Office (GAO), 2018 (Inventory Management, Material Distribution and Asset Visibility).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Enhancing Analysis, Modeling, and Decision Support	2.215	3.581	-
<b>Description:</b> The Strategic Distribution and Disposition (SDD) program continued to lay the groundwork for DLA's Smart Warehouses. During FY 2021, SDD met with vendors and potential vendors, and continued research of the technologies required to implement smart warehousing solutions. The SDD program provided applied research, analytical and decision support to DLA Distribution and Disposition Services and provided support to the Distribution Modernization Program (DMP). Additionally, SDD will continue to engage with Industry, Department of Defense (DOD) sponsored Federally Funded Research and Development Centers (FFRDCs) and University-Affiliated Research Center Laboratories (UARCs) leveraging subject-matter expertise in key areas of research such as Blockchain, Artificial Intelligence, Machine Learning, Internet of Things (IoT), Augmented Reality, and Autonomous/Robotics systems. SDD will continue to incorporate Integrate Project Teams (IPT) for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects.			
- During FY 2021, the SDD Program completed in research of an Electric Yard Truck for DLA Distribution. The purpose of this project is to perform a proof of concept in DLA Distribution San Joaquin, CA (DDJC) to test and evaluate to determine the feasibility of replacing conventional fossil-fueled trucks with the alternative electric truck technologies.			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> EMM / <i>Enhancing Analysis, Modeling, and Decision Support (formerly Analytic &amp; Decision Support)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- The SDD Program completed Phase I of the LocatorX Automated Warehouse Inventory Management case study which successfully proved a materiel solution that will enable and provide the logistics capabilities that deliver the supply chain and distribution support necessary to meet the demands of the Warfighter whenever and wherever required while incorporating into an enterprise architecture solution. Phase II of the LocatorX project will focus on Sensor IoT technology research which began in the 4th Quarter, FY 2021.</p> <p>- SDD progressed through the Phase II Small Business Innovative Research (SBIR) Augmented Reality (AR) case study to prove out DLA's acquisition approach for implementing AR technology in the Warehouse Picking process. This project continued to develop a prototype augmented reality system in a DLA warehouse environment and will provide a proof of concept to ascertain the utility, feasibility, maintainability, and cost-effectiveness of using AR to improve inventory efficiency. This project is planned for completion in the 2nd Quarter, FY 2022.</p> <p>- In April 2021, the SDD Program kicked-off an SBIR AGV Phase I project for an innovative indoor-outdoor mule-style AGV, developed/acquired in conjunction with other DOD partners. This project will serve as the pilot and proof of concept though test and evaluation at DLA Distribution Corpus Christi, TX (DDCT) and Hill Air Force Base, UT (DDHU) to ascertain the utility, feasibility, maintainability, and cost-effectiveness of AGVs.</p> <p>- During 4th Quarter, FY 2021, SDD began a Phase I case study to evaluate the application of a DLA Warehouse Inventory Drone. The study intends to identify a range of alternative warehouse drone solutions. The vendor will work with end-users to understand the use case requirements, evaluate the warehouse inventory drone pilot through research, provide DLA with the most feasible and beneficial solution to identify inventory capability gaps and optimize the study's outcome.</p> <p>- During 4th Quarter, FY 2021, a SBIR Phase I project began work to test the use of Artificial Intelligence (AI) at Distribution Center Warehouses, current DLA inventory management is manual with some machinery to help move inventory. This use case will study and analyze the use of AI and its potential applications to manage and guide end-use systems such as automated arms, robots, augmented reality for inventory management and other performance applications.</p> <p>- SDD Program also initiated planning for projects for technologies that address Automated Storage and Retrieval Systems (AS/RS), In-Transit Visibility (ITV), AI imbedded Robotic Arms, Warehouse Performance Management, 5G Networks, and a Systems of Systems Smart Warehouse.</p> <p><b>FY 2022 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> EMM / <i>Enhancing Analysis, Modeling, and Decision Support (formerly Analytic &amp; Decision Support)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>The Strategic Distribution and Disposition (SDD) program will continue to provide applied research, analytical and decision support to DLA Distribution and Disposition Services and provide support to the Distribution Modernization Program (DMP). Additionally, SDD will continue to engage with Industry, DOD sponsored FFRDCs and UARCs leveraging subject-matter expertise in key areas of research such as 5G Networks, Sensor IoT, Blockchain, Quantum Computing, AI/ML, AR, AS/RS, Performance Management, Automated Inventory, 3D Warehouse Mapping, and Autonomous/Robotics systems. SDD will continue to incorporate IPTs for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects. During FY 2022, the SDD Program plans to initiate technology projects that address ITV, AI imbedded Robotic Arms, Warehouse Performance Management, 5G Networks, and a Systems of Systems Smart Warehouse.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p> <p>-Funding and efforts for the Strategic Distribution and Disposition (SDD) program move to the Smart Warehouse Modernization Line of Effort (R&amp;D LOE 5) in FY 2023 focused on modernizing distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation.</p> <p>-FY 2022: Internal Realignment from DRAS2 to LOG R&amp;D of approximately \$0.930 million for the Strategic Distribution and Disposition (SDD) program in FY 2022 in order to support DLA Strategic Plan priorities in digital business transformation and data analytics.</p> <p>-Additionally, the overall DLA Logistics R&amp;D baseline was increased by approximately \$0.750 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	2.215	3.581	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> GLTD / <i>Improving Logistics Processes (formerly Logistics Process)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
GLTD: <i>Improving Logistics Processes (formerly Logistics Process)</i>	25.507	3.554	4.939	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Improving Logistics Processes (ILP) Strategic Focus Area (SFA) encompasses R&D efforts within the Weapon System Sustainment (WSS) and Acquisition Modernization Technology Research (AMTR) programs to support DLA business functional units through applied research and development of advanced technologies to improve business processes and operational methods, leverage the application of leading edge logistics “out-of-the box” concepts using disruptive technology business tools, and support DLA’s technological transformation effort. To qualify for R&D funding, the R&D effort must develop and apply technology and processes over and above current baseline IT systems and continuous improvements efforts.

Although all DLA processes are in scope, the strategic focus for this budget cycle is in Procurement, Planning, Technical Quality and the Major Subordinate Commands.

Innovative process changes and new technologies will be researched in these areas to drive improvements to internal costs, reduce award delays, and improve material availability, supply chain security, demand forecasting and logistical planning. This will be accomplished through the use of Artificial Intelligence/Machine Learning (AI/ML), blockchain technology, and research of emerging commercial best practices and technologies.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Improving Logistics Processes (ILP)	3.554	4.939	-
<b>Description:</b> The Weapon System Sustainment (WSS) program:			
- Continued research of Artificial Intelligence/Machine Learning (AI/ML) to enhance predictive analytics capabilities through improved metadata management and data quality with the Collibra tool that provides faster data insight.			
- Completed AI/ML research included application of commercial open-source AI/ML capabilities to predict and mitigate backorders and to improve lead time estimates.			
- Began a multi-pronged effort to enhance supply chain risk management using emergent technologies to improve risk assessment, market intelligence, and illumination of supply chain threats.			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> GLTD / <i>Improving Logistics Processes (formerly Logistics Process)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Began a year-long project to assess the practicality of implementing quantum computing technologies within DLA in the FY 2024 timeframe. Quantum computers leverage quantum mechanical phenomena to manipulate information in a manner that will enable larger and more complex calculations that cannot be accomplished on classical computers. Quantum computing is a key enabling technology for AI/ML, predictive analytics, highly complex simulations, and other emerging disruptive technologies.</p> <p>The Acquisition Modernization Technology Research (AMTR) program will establish in FY 2022. During FY 2021, transition began for acquisition modernization efforts that are currently managed and executed under the WSS program which included:</p> <p>- A comprehensive DLA J-7 Acquisition Modernization Program (AMP) groundwork study is in for acquisition modernization. This project will lead the evolutionary future of acquisition through emerging technologies (AI/ML, Robotic Process Automation (RPA), and blockchain) and innovation, integrate data science and processes that strengthen our knowledge-rich workforce, gather actionable market intelligence, maximize enterprise IT modernization, and leverage a secure and connected supply chain. Final results of the study will entail a 10 year enterprise acquisition modernization outlook which will enhance the AMTR program including future projects.</p> <p>- Two additional WSS projects are in the process of transitioning to the AMTR portfolio including Contract Quality Control and Applied Market Intelligence for Defense Acquisition (AMIDA). The Contract Quality Control project will recommend a state-of-the-art system for DLA contracts that incorporates modern technologies (such as AI) to provide a critical capability for DLA to measure the quality of contracts awarded. Efforts are currently underway for Phase I which is the initial study. AMIDA tackles a market intelligence framework for each DLA supply chain, specifically through research, analysis and an acquisition strategy formulation. Aviation is currently in the process of evaluation; however, this study will continue to expand across all of DLA's supply chains through FY 2025.</p> <p>- AMTR also collaborated with J7 on a rapid manufacturing operational enterprise solution for government owned intellectual property low demand items to improve DLA's readiness capabilities, delivering parts cheaper and faster. A pilot (proof of concept) is currently underway that will inform future objectives and milestones.</p> <p><b>FY 2022 Plans:</b> The Weapon System Sustainment (WSS) program will:</p> <p>- Continue assessment of AI/ML, quantum computing capabilities, and enterprise-wide data quality and curation capabilities. This will include additional research into demand projection, and expansion of supply chain risk management enhancements to additional items.</p>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> GLTD / <i>Improving Logistics Processes (formerly Logistics Process)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Partner with the Joint Artificial Intelligence Community to improve demand projections and evaluate commercial data sources for supply chain risk management analysis.</p> <p>- Continue exploration of blockchain technology by identifying a pilot study for a DLA business process such as a capability that permits Clothing &amp; Textile (C&amp;T) material suppliers (e.g., fabric, fiber and dye vendors) to securely share production data on a limited partner platform.</p> <p>The Acquisition Modernization Technology Research (AMTR) program will be fully operational beginning FY 2022. The program will continue efforts to expand market intelligence capabilities, Applied Market Intelligence for Defense Acquisition (AMIDA), to the remaining DLA supply chains. Phase II of Contract Quality Control will also begin which entails performing rapid prototyping of a modern technology solution (Artificial Intelligence or Robotic Process Automation) and defining a transition/sustainment plan. AMTR will continue collaboration efforts on the rapid manufacturing pilot including demonstration of prototype capabilities (algorithmic pricing and 3D modeling).</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p> <p>-Funding and efforts for the Weapons System Sustainment (WSS) program will move to the Predictive Analytics, Modeling &amp; Simulation Line of Effort (R&amp;D LOE 3) in FY 2023 focused on predictive analytics solutions using data and Artificial Intelligence/ Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions.</p> <p>-Funding and efforts for the Acquisition Modernization Technology Research (AMTR) program will move to the Logistics Operations Innovation Line of Effort (R&amp;D LOE 4) in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	3.554	4.939	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 04 / <i>Emergent Logistics R&amp;D Requirements (formerly Innovative Products &amp; Services for DLA Customers)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
04: <i>Emergent Logistics R&amp;D Requirements (formerly Innovative Products &amp; Services for DLA Customers)</i>	40.638	8.738	3.467	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Emergent Logistics R&D Strategic Focus Area (SFA) includes R&D efforts to develop new products and services for DLA customers in two programs:

The Energy Readiness Program (ERP) roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels under the ERP.

The Supply Chain Management (SCM) program addresses emergent and out of budget cycle requirements and opportunities within DLA's supply chains. A key objective of the SCM Program is to collaborate with customers (DLA J-Codes and Major Subordinate Commands (MSCs)) to identify capability shortfalls that can be addressed through major research efforts. These R&D efforts strive to develop technology mitigation strategies that address current and anticipated problems within DLA's supply chains.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Emergent Logistics R&D Requirements	3.738	3.467	-
<p><b>Description:</b> The Energy Readiness Program (ERP) continued working with Military Service customers and technical offices to improve specifications and standards for fuel and additive quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for military customers.</p> <p>- Initiated a project with the University of Hawaii, "Investigation of Waste-Based Feedstocks for Sustainable Aviation Fuel Production" to investigate the use and behavior of urban solid waste (e.g., wood residue from construction and demolition operations) for potential conversion of the materials into renewable fuels. This study will develop modeling to validate the use of the materials for use in gasification/Fischer-Tropsch process conversion into commercial and military grade fuels.</p> <p>- Completed "Dual Fuel Fatty Acid Methyl Ester (FAME) Quantification Instrument" project which built on an Army Phase II SBIR effort to develop a field portable, durable, accurate, an dependable instrument to measure fuel quality. This enhanced instrument</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 04 / <i>Emergent Logistics R&amp;D Requirements (formerly Innovative Products &amp; Services for DLA Customers)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

allows for faster detection of poor fuel quality and faster mitigation efforts when necessary. The Army is currently coordinating deployment of the units for initial use in service and DLA Energy operations.

- Completed "Hydrazine Propellant Evaluation Study". The purpose of this project, under contract to Aerojet Rocketdyne Inc., was to independently evaluate the performance of two high purity hydrazine aerospace propellants that were produced through two different production processes. The study confirmed that there was no difference in the performance of propellants, given the conditions of the study. Further work is recommended to further increase confidence in the use of ketazine process-derived hydrazine as equivalent to Raschig process derived hydrazine.

- Completed "Determination and Mitigation of the Role of Hydrogen Sulfide (H2S) Scavengers in Jet Fuel Thermal Stability (1st Phase)" to examine the role and risk of hydrogen sulfide (H2S) scavenger by-products causing jet fuel thermal stability failures in the US fuel supply system. Until now, little was known of the effect on fuel thermal stability. The study will continue to further understand the capacity of the by-products to degrade jet fuel thermal stability.

The Supply Chain Management (SCM) program partnered with the Navy's Battlespace Exploitation of Mixed Reality (BEMR) Lab to acquire and install a prototype demonstration of an Augmented Reality (AR) remote expert capability at DLA. SCM continued its work on a supply chain simulator that simulates the flow of supply through DLA's supply chain network in support of theoretical or planned contingency operations, such as the support of OPLANS. SCM studied available solutions that provide multi-tiered vendor supply chain management and determine their viability for items, components, and raw materials of DLA's known NSNs with castings, forgings, and specialty metals.

**FY 2022 Plans:**  
The Energy Readiness Program (ERP) will continue working with the Service customers to improve specifications and standards for fuel quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for Military Customers. ERP will focus on determining R&D solutions for ongoing issues affecting fuel and fuel additive quality and operational requirements (e.g., thermal stability, storage stability, ignition capability) and providing additional alternatives for military unique fuels. With the current administration's increased focus and climate change initiatives and alternatives to petroleum products, the program's efforts to assist the military services in the qualification and certification of alternative fuels to meet military specification requirements are anticipated to increase significantly and that may drive future adjustments to current program priorities in order to address these areas.

The Supply Chain Management (SCM) program will complete the Navy's Battlespace Exploitation of Mixed Reality (BEMR) Lab prototype demonstration of an Augmented Reality (AR) remote expert capability and continue work on the supply chain simulator

FY 2021	FY 2022	FY 2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 04 / <i>Emergent Logistics R&amp;D Requirements (formerly Innovative Products &amp; Services for DLA Customers)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>in support of contingency operations. Additionally, SCM will complete a study of available solutions that provide multi-tiered vendor supply chain management options for DLA's known NSNs with castings, forgings, and specialty metals. Finally, SCM will initiate efforts to support the "greening" of selected DLA supply chain elements and continue to address emergent, out of budget cycle requirements and opportunities as they arise.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> -Funding and efforts for the Energy Readiness Program (ERP) and the Supply Chain Management (SCM) program will move to the Logistics Operations Innovation Line of Effort (R&amp;D LOE 4) in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment.</p>			
<p><b>Title:</b> Domestic Supply of Strategic Metals</p> <p><b>Description:</b> DLA received a \$5 million reprogramming from the Missile Defense Agency Congressional Add for domestic supply of strategic metals. This funding supports a continuation of a Small Business Innovation Program Ph-3 effort in establishing a domestic source of strategic metals, specifically titanium, by converting scrap metals into aerospace grade powders through proprietary technology of Unimelt Plasma Process. The funding is critical in expanding domestic industrial base to reach DOD goal of self-sufficiency in producing higher grade metals.</p>	5.000	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	8.738	3.467	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> LOI / <i>Logistics Operations Innovation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
LOI: <i>Logistics Operations Innovation</i>	-	0.000	0.000	6.088	-	6.088	6.353	6.485	6.605	6.726	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Logistics Operations Innovation Line of Effort (R&D LOE 4) seeks to improve DLA supply chain performance and security through the integration of advanced technology and innovative processes within the DLA day-to-day business operations. Research in these areas drive improvements to internal costs, reduce award delays, and improve material availability, supply chain security, and logistical planning. This will be accomplished through the use of artificial intelligence/machine learning, blockchain technology, and research of emerging commercial best practices and technologies. In addition, out of cycle emergent technologies across all DLA supply chains and logistics processes are resourced in a timely manner without disrupting ongoing projects by funds reallocation. The objectives for this LOE include:

1. Secure supply chains: Improvements to the DOD Class III Bulk Fuel Petroleum, Oil and Lubricants supply system
2. Technical Solutions for anti-counterfeiting detection: innovative solutions to prevent counterfeit parts in the logistical supply chain.
3. Integrated logistics information that yields cost savings and shortens lead times:

The Logistics Operations Innovation LOE includes R&D efforts to develop new products and services for DLA customers in three programs:

-The Energy Readiness Program (ERP) roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels under the ERP.

-The Acquisition Modernization Technology Research (AMTR) program focuses on DLA Acquisition related requirements to enhance market intelligence research capabilities, contract quality, and best value acquisitions.

-The Supply Chain Management (SCM) program addresses emergent, out of budget cycle requirements and opportunities within DLA's supply chains. A key objective of the SCM Program is to collaborate with customers (DLA business process owners and supply chain owners) to identify capability shortfalls that can be addressed through major research efforts. These R&D efforts strive to develop technology mitigation strategies that address current and anticipated problems within DLA's supply chains.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Logistics Operations Innovation Line of Effort (R&D LOE 4)	0.000	-	6.088
<b>Description:</b> Funding and efforts for the Logistics Operations Innovation Line of Effort (R&D LOE 4) begins in FY 2023.			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> LOI / <i>Logistics Operations Innovation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2023 Plans:</i></b>                      The Energy Readiness Program (ERP) will continue working with the Service customers to improve specifications and standards for fuel quality, engage in modeling and simulation of the energy supply chain and identifying alternative energy sources for Military Customers. ERP will focus on determining R&amp;D solutions for ongoing issues affecting fuel and fuel additive quality and operational requirements (e.g., thermal stability, storage stability, ignition capability) and providing additional alternatives for military unique fuels. With the current administration’s increased focus and climate change initiatives and alternatives to petroleum products, the program’s efforts to assist the military services in the qualification and certification of alternative fuels to meet military specification requirements are anticipated to increase significantly and that may drive future adjustments to current program priorities in order to address these areas.</p> <p>The Acquisition Modernization Technology Research (AMTR) program will continue efforts to expand market intelligence capabilities (AMIDA) to the remaining DLA supply chains. Additionally, AMTR will investigate new projects that were addressed during the AMP groundwork study including accelerating e-commerce procurement methods and automating contract management for one-off or short-term buys.</p> <p>The Supply Chain Management (SCM) program will transition the supply chain simulator in support of contingency operations, continue efforts that support the “greening” of selected DLA supply chain elements and continue to address emergent, out of budget cycle requirements and opportunities as they arise.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b>                      Funding and efforts for the Logistics Operations Innovation Line of Effort (R&amp;D LOE 4) begins in FY 2023 focused on the integration of innovative processes and technology into the DLA supply chains to enhance warfighter readiness and weapons system sustainment.</p> <p>-Internal Realignment from EFD PE 0605070S: Moved baseline funding from EFD to LOG R&amp;D since the program was transitioned to Defense Finance Accounting Service (DFAS) in November 2021.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	6.088

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> LOI / <i>Logistics Operations Innovation</i>

**D. Acquisition Strategy**  
N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> PAM / <i>Predictive Analytics / Modeling &amp; Simulation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
PAM: <i>Predictive Analytics / Modeling &amp; Simulation</i>	-	0.000	0.000	3.872	-	3.872	3.881	3.973	4.051	4.129	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The focus of the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) is to develop predictive analytic solutions by applying AI/ML algorithms to data obtained from DLA and external sources which can help solve high-impact problems, improve business operations, and provide actionable strategies for optimized business decisions. Through the development of decision support tools, such as modeling, simulation, and other analytics to improve operational strategy decision-making, forecasting, and procurement, DLA will achieve more effective and efficient responses to emerging market and customer requirements. The objectives for this LOE include:

1. Leverage technological solutions for data analytics and integration for demand projections and supply chain risk management.
2. Data analytics integration for DLA, the military services and industry: allows businesses and vendors to aggregate data, analyze it, and transform it into useful information.
3. Explore emergent technologies in quantum computing and edge computing to enable advanced analytics.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3)	0.000	-	3.872
<b>Description:</b> Funding and efforts for the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) begins in FY 2023.			
<b>FY 2023 Plans:</b> Efforts to improve demand projections and supply chain risk management identified in FY 2022 will continue. WSS will explore cross domain capabilities to bring classified and unclassified data into DLA using secure application program interfaces (APIs) software intermediaries to support data availability.  WSS will conduct additional use cases for data analytics improvements, and AI/ML application such as adaptive training and improvements to key processes supporting warfighter readiness. Follow on efforts to conduct a pilot study utilizing quantum computing technology will be pursued based on the commercial availability of the technology. WSS will conduct an internal pilot study of blockchain technology for identified high value business process.			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> PAM / <i>Predictive Analytics / Modeling &amp; Simulation</i>
--	--	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
WSS will research an enterprise-wide digital vendor on-boarding process to register, analyze, and validate suppliers to reduce duplication, improve timeliness, and the ability to tailor supply chain risk analytics to each program.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Funding and efforts for the Predictive Analytics, Modeling & Simulation Line of Effort (R&D LOE 3) begins in FY 2023 focused on predictive analytics solutions using data and Artificial Intelligence/Machine Learning (AI/ML) to solve high-impact problems, improve business operations, and provide actionable strategies to inform business decisions.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	3.872

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> SWM / <i>Smart-Warehouse Modernization</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SWM: <i>Smart-Warehouse Modernization</i>	-	0.000	0.000	3.703	-	3.703	3.760	3.829	3.897	3.967	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Smart Warehouse Modernization Line of Effort (R&D LOE 5) will assess and test cyber-secure smart-warehouse technologies to transform and modernize distribution and disposition operations. The objectives for this LOE include:

1. Increase productivity and efficiency through interconnected technologies and automation such as enhanced inventory management, materiel distribution, and asset visibility
2. Provide enhanced and cyber-secure operations

The Strategic Distribution & Disposition (SDD) Program collaborates with DLA Distribution and Disposition Services to identify legacy capabilities that are inadequate for emerging worldwide distribution and disposition requirements. A key objective of the SDD Program is to anticipate, assess, and meet the current and future Warfighter requirements by leveraging R&D to infuse innovation into solutions. Long-term objectives include mitigating the DOD Supply Chain Management high risk issues identified by the Government Accountability Office (GAO), 2018 (Inventory Management, Material Distribution and Asset Visibility).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Smart Warehouse Modernization Line of Effort (R&D LOE 5)	0.000	-	3.703
<b>Description:</b> Funding and efforts for the Smart Warehouse Modernization Line of Effort (R&D LOE 5) begins in FY 2023.			
<b>FY 2023 Plans:</b> The Strategic Distribution and Disposition (SDD) program will continue to provide applied research, analytical and decision support to DLA Distribution and Disposition Services and provide support to the Distribution Modernization Program (DMP). SDD will continue to engage with Industry, DOD sponsored FFRDCs and UARCs leveraging subject-matter expertise in key areas of research such as 5G Networks, Sensor Internet of Things (IoT), Blockchain, Quantum Computing, Artificial Intelligence/ Machine Learning (AI/ML), and leverage the benefits realized from proven research studies and pilot projects in the areas of AR, AS/RS, Performance Management, Automated Inventory, 3D Warehouse Mapping, and Autonomous/Robotics systems (e.g., Autonomous Guided Vehicles (AGVs), Autonomous Mobile Robots (AMRs), etc.). SDD will continue to incorporate IPTs for project collaboration and Integrated System Engineering concepts (test and evaluation) into Distribution projects.			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> SWM / <i>Smart-Warehouse Modernization</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>During FY 2023 SDD plans to focus on the upgrading of current data architectures to manage and handle the evolution of “Big Data” in the digital revolution through the exploration of the fundamental shifts in network and wireless performance as classified with the 5Vs Concept: Volume – The need for high volume of data; Velocity – The need to generate and process data at high speed; Variety – The types of data (i.e., Policies, photographs, graphs, PDF/MS/Excel files, etc.); Veracity – The need for accuracy and trustworthiness of the data (cybersecurity); and Value – The need to enable smarter and better decision making. Efforts will include:</p> <p>-5G Network technology needed to enhance the connectivity and speed of mobile devices to communicate data for DLA’s inventory management activities, material distribution activities, and asset visibility activities.</p> <p>-Sensor IoT technology applications to enhance DLA’s data collection and implement the nine principal technologies are used to create a smart warehouse where machines, systems, and humans communicate to coordinate and monitor progress on the warehouse floor. IoT supports the opportunity to obtain “Big Results” and to improve services, productivity, lower downtime, and contributes to deep learning.</p> <p>-Blockchain to reduce the complexity of ordinary transactions and ensure data integrity, ensure all parties provide consensus before new transactions are added to the network, eliminate or reduce paper processes, speed up transaction times and increase efficiencies, enhance the ability to more securely track/trace transactions, and use cryptographic algorithms to provide better cybersecurity.</p> <p>-Investigate Quantum Computing to make the evolution of “Big Data” an effective reality by providing the capability to process the ever-increasing amounts of data being collected, stored, and disseminated, and more quickly ingest, compile, and analyze the large sums of data, perform data mining functions, computing operations, and to process “Big Data”.</p> <p>-Artificial Intelligence/Machine Learning (AI/ML) to automate repetitive tasks, reduce or eliminate inefficiencies in supply chain activities, eliminate the high labor costs for repetitive tasks, reduce the long lead time to process repetitive tasks, implement AI/ML to automate tasks based on the integrity of data, and enhance DLA’s business operations by simply reducing the time needed to perform repetitive tasks – i.e., data entry and transactions.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p> <p>-Funding and efforts for the Smart Warehouse Modernization Line of Effort (R&amp;D LOE 5) begins in FY 2023 focused on modernize distribution and disposition operations through infusion of smart-warehousing, interconnected technologies, and automation.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> SWM / <i>Smart-Warehouse Modernization</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
-Additionally, the Smart Warehouse Modernization Line of Effort (R&D LOE 5) baseline was increased by approximately \$0.750 million across FY 2023 - FY 2027 based on internal funding reallocation decision to modernize DLA's warehousing and distribution processes by leveraging automation, Big Data, and predictive analytics to make data-driven decisions, improve productivity and cost effectiveness, and realize returns on investment as agency savings.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	3.703

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1,116.972	131.718	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing
001: <i>Technology Development</i>	557.688	57.911	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
003: <i>Trusted Foundry</i>	559.284	73.807	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
004: <i>Defense MicroElectronics Activity (DMEA)</i>	0.000	0.000	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Microelectronics Activity (DMEA) mission is to leverage advanced technologies to provide microelectronics solutions across the entire spectrum of technology development and system acquisition phases. It is critical to National Security for the Department to maintain technological superiority through microelectronics solutions via partnerships with the Defense Industrial Base, and by alternative means when industry is unable or unwilling to provide them. DMEA provides an in-house capability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. DMEA augments its in-house capability through extensive industry and Government partnerships that enable streamlined access to a variety of microelectronics technologies and engineering services to enhance responsiveness, and that develop sources for advanced microelectronics solutions.

DMEA's capabilities are critical in an atmosphere of diminishing domestic semiconductor manufacturing capability and increasing worldwide supply chain risks. The Department has very little influence over the microelectronics industry; the defense market represents less than 0.1% share of the total global semiconductor market. Access to mainstream, State of the Practice (SOTP) and State of the Art (SOTA) technologies is therefore a major and growing challenge. Threats to defense microelectronics include counterfeiting, latent vulnerabilities, malicious insertions, reliability issues particular to military environments, consolidation and off-shoring of manufacturing, rapid obsolescence and diminishing technology availability coming from an unpredictable and unsecured supply chain. In addition, as the Department maintains its weapon systems longer than originally planned, extended use increases demand for sustainment and modernization, which further intensifies the need for DMEA's unique capabilities, as well as continued development, and incorporation, of quantifiable assurance mechanisms.

DMEA provides the Department with engineering expertise and laboratories to address the myriad microelectronics issues and to meet military requirements across the entire spectrum of technology research and development, acquisition, and long-term support. DMEA applies its specialized capabilities to resolve microelectronics issues for hundreds of distinct Department programs across the acquisition lifecycle every year. In addition, DMEA assists the Combatant Commands (COCOMs) including Special Ops, Cyber, Intelligence, and the Radiation-Hard communities.

DMEA also provides the Department with front door access to SOTA microelectronics design and manufacturing capabilities with the added benefit of accredited facilities and processes, which employ quantifiable assurance mechanisms, to meet confidentiality, integrity, availability, performance and delivery needs. DMEA also provides the Services and Defense Agencies with a competitive cadre of accredited suppliers and advanced hardware assurance capabilities that can meet the needs of mission critical/essential systems for microelectronics components.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	124.049	160.821	0.000	-	0.000
Current President's Budget	131.718	202.475	139.833	-	139.833
Total Adjustments	7.669	41.654	139.833	-	139.833
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	12.000	49.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.331	-6.621			
• Correction for Non-Pay/Non-Fuel Purchases	-	-0.725	-	-	-
• Adjustments to Budget Year	-	-	139.833	-	139.833

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project: 001: Technology Development**

Congressional Add: *GaN-on-Si-Based RF Front-end Increase*

Congressional Add Subtotals for Project: 001

**Project: 003: Trusted Foundry**

Congressional Add: *Military GPS User Equipment (MGUE) Transfer from PDW*

Congressional Add Subtotals for Project: 003

**Project: 004: Defense MicroElectronics Activity (DMEA)**

Congressional Add: *Qualified Discrete Parts*

Congressional Add: *GaN-on-Si RF Front-end*

Congressional Add: *On-Shore Test Site*

Congressional Add: *Silicon Carbide Applications*

Congressional Add Subtotals for Project: 004

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
	5.000	-
Congressional Add Subtotals for Project: 001	5.000	-
	7.000	-
Congressional Add Subtotals for Project: 003	7.000	-
	-	5.000
	-	30.000
	-	9.000
	-	5.000
Congressional Add Subtotals for Project: 004	-	49.000
Congressional Add Totals for all Projects	12.000	49.000

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>
---	---

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 001 / <i>Technology Development</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>001: Technology Development</i>	557.688	57.911	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Technology Development funds provide DMEA with the resources to maintain an in-house ability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. These funds also support DMEA's ability to partner with industry, other government agencies, and academia to enable streamlined access to a variety of microelectronics technologies and engineering services.

These funds enable DMEA to provide increasingly rare government microelectronics design, fabrication, and test expertise to DoD programs. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and deliver novel, decisive, quick turn microelectronics solutions for defense, intelligence, special operations, and cyber and combat missions.

These funds allow DMEA to maintain and enhance critical, Trusted microelectronics design, aggregation, fabrication, post-processing, assembly and analysis capabilities to ensure that the Department is provided with solutions that enable or maintain the warfighter's technological superiority over potential adversaries. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. In addition, funding provides for the research, development and support necessary to ensure availability of microelectronics technologies for weapon systems, particularly as the technologies advance and industry is increasingly unable or unwilling to provide them.

DMEA looks to industry to see if it can provide the required solutions. If industry cannot or will not, only then does DMEA provide the necessary solutions using its in-house capabilities. A critical element required to enable continued success is DMEA's protection of the industry partners' valuable Intellectual Property (IP) and processes. DMEA is a small, agile government-owned and operated organization, providing the structure and confidence necessary to assure them that commercial IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP and processes by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

DMEA assists hundreds of Department programs every year. DMEA has provided its specialized engineering assistance and capabilities to older systems, current systems, and even to programs not yet in the production phase. Programs that DMEA has recently provided critical support to include Counter-Rocket, Artillery, and Mortar (C-RAM) System, C-5, V-22, F-15, F-35, RQ-4 Global Hawk, AEGIS Advanced Surface Missile System, Advanced Medium-Range Air-to-Air Missile (AMRAAM), HH-60G Pave Hawk Helicopter, OSD Joint Fuze Technology Program, among many others. DMEA assists the Combatant Commands (COCOMs) including Special Operations, Intelligence, and the Radiation-Hard communities.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 001 / <i>Technology Development</i>
--	---	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
<b>Title:</b> Technology Development Accomplishments/Plans	52.911	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	52.911	-	-

	FY 2021	FY 2022
<b>Congressional Add:</b> GaN-on-Si-Based RF Front-end Increase	5.000	-
<b>FY 2021 Accomplishments:</b> \$5 million increase for GaN-on-Si-Based RF Front-end - DMEA plans to continue its efforts (phase 2) on scaling and establishing a domestic 200mm Gallium Nitride (GaN) on Silicon (Si) source at an industry partner.		
<b>Congressional Adds Subtotals</b>	5.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 003 / <i>Trusted Foundry</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
003: <i>Trusted Foundry</i>	559.284	73.807	0.000	-	-	-	-	-	-	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Department, other agencies, and the intelligence community require uninterrupted access to state-of-the-art design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. Under DoDI 5200.44, Application Specific Integrated Circuits (ASICs) in critical/essential systems must be procured from Trusted sources in order to avoid altered or sabotaged parts. Worldwide competition from foreign, state-subsidized manufacturing facilities continues to greatly reduce the number of U.S. semiconductor fabrication facilities available to be Trusted sources. The prevalence of sophisticated offshore design and manufacturing facilities with economic incentives of state subsidies have resulted in the outsourcing of electronics component and integrated circuit services to these offshore facilities. This production capability is of increasing importance as domestic semiconductor manufacturing resources continue to decline, especially in the scarce domestic production capacity of high performance and state-of-the-art semiconductor technologies. Commercial sources of microelectronics remain inherently unpredictable and constitute a continued supply chain risk regardless of Government investment. This trend threatens the integrity and worldwide leadership of the U.S. semiconductor industry by eliminating many domestic suppliers and reducing access to Trusted fabrication sources for advanced technologies, and is of acute concern to the defense and intelligence communities. Secure communications and cryptographic applications, along with most other key defense technologies, depend heavily on high performance semiconductors where a generation of improvement often translates into significant force multipliers and capability advantages. Important defense technology investments and demonstrations carry size, weight, power, and performance goals that can only be met through the use of the most sophisticated semiconductors.

The Trusted Foundry program provides the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry, as well as the extension and implementation of key process technologies for trust at DMEA. It is imperative for a wide range of technologies in ongoing and future Department systems that access to Trusted suppliers continues. Most importantly, access to Trusted Microelectronics is absolutely necessary to meet secure communication and cryptographic needs requiring state-of-the-art semiconductor technologies.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Trusted Foundry	66.807	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	66.807	-	-

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 003 / <i>Trusted Foundry</i>
--	---	--

	FY 2021	FY 2022
<b>Congressional Add:</b> Military GPS User Equipment (MGUE) Transfer from PDW	7.000	-
<b>FY 2021 Accomplishments:</b> \$7M MGUE DLA requested transfer from PDW - DMEA plans to execute the first option year of a two year extension of a critical process technology required for the DoD to complete its procurement of MGUE ASICs.		
<b>Congressional Adds Subtotals</b>	7.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>				<b>Project (Number/Name)</b> 004 / <i>Defense MicroElectronics Activity (DMEA)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
004: <i>Defense MicroElectronics Activity (DMEA)</i>	0.000	0.000	202.475	139.833	-	139.833	143.442	145.862	146.628	147.741	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DMEA maintains an in-house ability to quickly develop and deliver timely, cost-effective, technically appropriate solutions to sustain weapon systems, to modernize their capabilities, increase their lethality, address new threats, and meet operational demands. These funds also support DMEA's ability to partner with industry, other Government agencies, and academia to enable streamlined access to a variety of microelectronics technologies and engineering services.

These funds enable DMEA to provide increasingly rare government microelectronics design, fabrication, and test expertise to DoD programs. DMEA's knowledge of varying military requirements across a broad and diverse range of combatant environments and missions—along with its unique technical perspective—allows it to develop, manage and deliver novel, decisive, quick-turn microelectronics solutions for defense, intelligence, special operations, cyber and combat missions.

These funds allow DMEA to maintain and enhance critical, microelectronics design, aggregation, fabrication, post-processing, assembly, hardware assurance and analysis capabilities to ensure that the Department is provided with solutions that enable or maintain the warfighter's technological superiority over potential adversaries. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. In addition, funding provides for the development and sustainment support necessary to ensure availability of microelectronics technologies in accordance with applicable operational security standards, particularly as the technologies advance and industry is increasingly unable or unwilling to provide them.

The Department, other US Agencies, and the Intelligence Community require uninterrupted access to design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. DMEA partners with industry to provide the required solutions, and the necessary access to commercial SOTA microelectronics design and manufacturing capabilities to meet confidentiality, integrity, availability, performance and delivery needs. If industry cannot or will not provide the required solutions, only then does DMEA provide the necessary solutions using in-house capabilities. A critical element required to enable continued success is DMEA's protection of the industry partners' valuable Intellectual Property (IP). DMEA is an agile, Government-owned-and-operated organization, providing the structure and confidence necessary to assure them that commercial IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

DMEA assists hundreds of Department programs every year. DMEA has provided its specialized engineering assistance and capabilities to older systems, current systems, and even to programs not yet in the production phase. Programs that DMEA has recently provided critical support to include CH-53E Sea Stallion, Virginia Class Submarines, Columbia Class Submarines, UH-60 Blackhawk, Air Force Air Combat Command, US Army Corps of Engineers, E-3 AWACS, C5ISREW CHEETAH, Military GPS User Equipment, NASA Parker Solar Probe, Naval Research Laboratory High Power Microwave Office, among many others. DMEA assists the Combatant

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 004 / <i>Defense MicroElectronics Activity (DMEA)</i>
--	---	---

Commands (COCOMs) including Special Operations, Intelligence, and the Radiation-Hard communities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Defense Microelectronics Activity Accomplishments/Plans</p> <p><b>FY 2022 Plans:</b>                      DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational sustainment problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, developing advanced techniques to inspect and analyze circuits, and adapting tools and processes to contribute to the Department-wide hardware assurance efforts, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the Trusted Access Program Office. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will assist the Department in the incorporation of the standards for the design and production of the critical components and services needed for appropriate defense systems while contributing to the development or transition to new security approaches for microelectronics.</p> <p>DMEA will continue to support DoD programs in utilizing operational security standards and conducting ACMAs in support of the program protection planning process. DMEA will leverage new models for the use of in-house capabilities to support STEM workforce development, mainstream semiconductor technology fabrication, and streamlined access to advanced technologies.</p> <p>DLA Transfer from PDW for \$35M. DLA requested transfer to execute procurement of ASIC's from TAPO to include: reservations, security services, fee's, masks, wafers, technical services, and other services provided by TAPO</p> <p><b>FY 2023 Plans:</b>                      DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest asymmetric threats and to modernize and sustain aging weapon systems. To meet the increased missions seen in the last several years by CCMDs, Special Operations, and the Intelligence Community, DMEA will extend and refresh capability by recapitalizing and modernizing its aging laboratory infrastructure, developing advanced techniques to inspect and analyze</p>	-	153.475	139.833

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 004 / <i>Defense MicroElectronics Activity (DMEA)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>circuits, and adapting tools and processes to contribute to the Department-wide hardware assurance efforts, all to meet quick turn solutions on which CCMDs and Special Operations can rely. DMEA will continue to act as the program manager for the Trusted Foundry Program and will provide the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs via the Trusted Access Program Office. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. In areas where Trust is not available, DMEA will assist the Department in the incorporation of the standards for the design and production of the critical components and services needed for appropriate defense systems while contributing to the development or transition to new security approaches for microelectronics. DMEA will continue to support DoD programs in utilizing operational security standards and conducting ACMAs in support of the program protection planning process. DMEA will leverage new models for the use of in-house capabilities to support STEM workforce development, mainstream semiconductor technology fabrication, and streamlined access to advanced technologies.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The FY 2022 to FY 2023 decrease is primarily due to the receipt of the FY 2022 DLA transfer from PDW for \$35M which was not received in FY 2023.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	153.475	139.833

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Qualified Discrete Parts <i>FY 2022 Plans:</i> Plans awaiting development. Requested Congressional intent on 3/23/22.	-	5.000
<b>Congressional Add:</b> GaN-on-Si RF Front-end <i>FY 2022 Plans:</i> DMEA plans to continue its efforts (phase 3) on scaling and establishing a domestic 200mm Gallium Nitride (GaN) on Silicon (Si) source at a high volume DMEA accredited Trusted Supplier.	-	30.000
<b>Congressional Add:</b> On-Shore Test Site <i>FY 2022 Plans:</i> Plans awaiting development. Requested Congressional intent on 4/4/22.	-	9.000
<b>Congressional Add:</b> Silicon Carbide Applications	-	5.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 004 / <i>Defense MicroElectronics Activity (DMEA)</i>
--	---	---

	FY 2021	FY 2022
<b>FY 2022 Plans:</b> Phase 1 effort to investigate and develop a 200mm SiC (Silicon Carbide) epitaxial growth and manufacturing capability at a domestic 200mm high volume DMEA accredited Trusted Supplier.		
<b>Congressional Adds Subtotals</b>	-	49.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / <i>DOD Enterprise Systems Development and Demonstration</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
09: <i>Enterprise Funds Distribution</i>	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The mission of the DOD Enterprise Business Systems (DEBS) is to coordinate and enable business transformation efforts across the Department of Defense (DOD). DOD's business enterprise must be closer to its warfighting customers than ever before, and Joint military requirements drive the need for greater commonality and integration of business and financial operations.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	1.377	0.679	0.000	-	0.000
Current President's Budget	1.327	0.654	0.000	-	0.000
Total Adjustments	-0.050	-0.025	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.050	-0.025			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DOD Enterprise Systems Development and Demonstration				<b>Project (Number/Name)</b> 09 / Enterprise Funds Distribution			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
09: Enterprise Funds Distribution	32.406	1.327	0.654	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Enterprise Funds Distribution (EFD) is a multi-service/multi-agency process improvement and modernization solution, initiated to provide full visibility of the OUSD(C) funds distributed through echelon I and II for the Military Departments, and at all levels for the Defense Agencies. Funds distribution by its nature is a key enabler of financial visibility within DOD enterprise systems. The concept of a fully visible enterprise funds distribution process serves as a reference where planned and coordinated funds development and execution takes place.

Within the current DOD environment, progress has been made streamlining a diverse set of stove-piped budget execution and funds distribution processes and systems. Efforts continue to improve the visibility of funding information, eliminate manual efforts and undue complexities to the management of budget authority, and to eliminate impediments in the flow of funding documents. The current environment relies heavily on manual processing and on disconnected standalone systems for the processing of Funding Authorization Documents (FADs) and reprogramming actions. This environment made the implementation of internal controls difficult, negatively impacted the accuracy and timeliness of information while making the processes of integrating and obtaining management information arduous.

The envisioned operational environment solves these problems by enabling lifecycle program value management in a web-based application utilizing an authoritative database with single-source data entry and automated workflow. Capabilities within this integrated environment will enable the automation of all funds distribution and funds control processes within OUSD(C) using authoritative and highly visible data. Specifically, capabilities include managing apportionments, distributing budget authority to the Military Departments and Defense Agencies, managing rescissions and continuing resolutions, creating and tracking reprogramming actions, and establishing program baselines and budget authority needed to support changes in funding priorities throughout the year.

The operational environment includes organizational elements down to the echelon II level responsible for managing DOD and Component appropriations operating in an unclassified environment. The web-based application provides pre-planning, apportionment, reprogramming, rescission, continuing resolution, reporting of enterprise-level funds control and distribution of appropriated funding.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Enterprise Funds Distribution (EFD)	1.327	0.654	0.000
<b>Description:</b> EFD will distribute funds to the Military Departments and the Defense Agencies.			
<b>FY 2022 Plans:</b> Development and deployment of System Change Requests (SCR's) to support post deployment requirements, required			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / <i>DOD Enterprise Systems Development and Demonstration</i>	<b>Project (Number/Name)</b> 09 / <i>Enterprise Funds Distribution</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
enhancements, post annual closeout activities and support of mandated ad-hoc/urgent operational requirements.			
<b><i>FY 2023 Plans:</i></b> Funding is no longer required as program was transitioned to DFAS in November 2021.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The decrease from FY 2022 to FY 2023 is due to the program being removed from the RDT&E portfolio.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.327	0.654	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The EFD strategy is to use a “single acquisition to full capability,” commercial-off-the-shelf (COTS) solution (Momentum software). The effort is needed to ensure EFD is fully implemented for all appropriation funding data for the Military Services and Defense Organizations.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Logistics Agency											<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DOD Enterprise Systems Development and Demonstration					<b>Project (Number/Name)</b> 09 / Enterprise Funds Distribution				

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total		Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Target Value of Contract
Savantage Solutions	Option/FP	Savantage Solutions : Rockville, MD	14.158	-		-		-		-		-		0.000	14.158	14.158
TeraThink/CGI Corporation	C/FFP	TeraThink Corporation/CGI : Reston, VA	16.756	1.327	Dec 2020	0.654	Dec 2021	0.000		-		0.000		Continuing	Continuing	Continuing
TeraThink Corporation	C/FFP	TeraThink Corp. : TeraThink Corporation, Reston, VA	1.492	-		-		-		-		-		0.000	1.492	1.492
Prior Year Contracts	Option/Various	Multiple : Multiple	-	-		-		-		-		-		Continuing	Continuing	-
<b>Subtotal</b>			32.406	1.327		0.654		0.000		-		0.000		Continuing	Continuing	N/A

**Remarks**  
Prior year contracts line include Savantage Solutions Option/FP Rockville, MD \$14.158 million and TeraThink Corporation FFP Reston, VA \$1.492 million.

Project Cost Totals	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
	Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost	Cost	Cost
	32.406	1.327		0.654		0.000		-		0.000	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DOD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 09 / Enterprise Funds Distribution
--	--	--

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Enterprise Funds Distribution							
+			TRANSITION TO DFAS (Nov 2021)				
Enterprise Funds Distribution (EFD)							

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / <i>DOD Enterprise Systems Development and Demonstration</i>	<b>Project (Number/Name)</b> 09 / <i>Enterprise Funds Distribution</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Wave 1 Deployment</b>				
Development Activities using Momentum Financials ERP	1	2017	4	2018
<b>Wave 2 Deployment</b>				
The program will continue the development and deployment of EFD post Wave 2 requirements based on user group migration strategy. Also deploy additional accounts and dev activities.	1	2019	4	2019
<b>Wave 3 Deployment</b>				
The program will continue the development and deployment of EFD post Wave 3 requirements based on user group migration strategy. Also deploy additional accounts and dev activities.	1	2020	4	2020
<b>Post Waves 1, 2 and 3 Development</b>				
SCRs, Momentum Upgrade Development, Break-Fix Development	1	2021	4	2021
<b>Transition to DFAS</b>				
Transition to DFAS in November 2021	1	2022	1	2022
<b>Post Transition to DFAS</b>				
Post transition SCRs, Break-Fix Development	1	2022	4	2022

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agencies Initiative (DAI) - Financial System
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing
01: Defense Agencies Initiative - Financial System	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 0491

**A. Mission Description and Budget Item Justification**

The Defense Agencies Initiative (DAI) program, a Category I Defense Business System, is an Enterprise Resource Planning (ERP) based program that was originally created to solve Defense Agency financial management problems through standard end-to-end business processes delivered by commercial off-the-shelf (COTS) software. DAI's mission is to provide an auditable, Chief Financial Officer (CFO) Act compliant business environment for the Defense customer organizations with accurate, timely, and authoritative financial data. DAI supports continued development and fielding of its current Increment 3 baseline. Previous funding for DAI Increments 1 and 2 were documented in the Defense Enterprise Business Systems program element 50605070S00. Increment 3 will deliver new financial capabilities including Defense Working Capital Fund (DWCF) and Re-Sale accounting plus a major application upgrade.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	20.537	32.254	0.000	-	0.000
Current President's Budget	21.403	31.136	23.171	-	23.171
Total Adjustments	0.866	-1.118	23.171	-	23.171
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.578	-			
• SBIR/STTR Transfer	-0.712	-1.118			
• Adjustments to Budget Year	-	-	23.171	-	23.171

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>				<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
01: <i>Defense Agencies Initiative - Financial System</i>	204.561	21.403	31.136	23.171	-	23.171	25.719	25.381	24.975	25.164	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
<b>Project MDAP/MAIS Code:</b> 0491												

**A. Mission Description and Budget Item Justification**

DAI mission is to deliver an auditable, CFO Act compliant business environment for Defense customer organizations providing accurate, timely, authoritative financial data supporting the DoD goal of standardizing financial management practices, improving financial decision support, and supporting audit readiness. DAI has replaced multiple non-compliant financial management systems supporting diverse operational functions and the warfighter in decision-making and financial reporting. DAI currently provides the capability to produce timely, auditable reports as noted in four consecutive annual unmodified System and Organization Controls report (SOC-1).

The primary goal is to deploy a standardized system solution to improve overall financial management and comply with BEA, Standard Financial Information Structure (SFIS)/Standard Line of Accounting (SLOA), and Office of Federal Financial Management (OFFM) requirements. Common business functions within budget execution include the Department’s BEA End to End (E2E) business processes: Cost Management; Budget to Report (B2R); Procure to Pay (P2P) with enhancements facilitating SFIS/SLOA and DoD procurement data standards and direct Treasury disbursing; Acquire to Retire (A2R) (real property lifecycle accounting only); Hire to Retire (H2R) (Time and Labor reporting and absence management only); Order to Cash (O2C); Proposal to Reward (P2R) (Grants financial management and accounting only; and a phased implementation of Governance, Risk, and Compliance (GCR) capabilities supporting audit readiness. Future Defense Working Capital Fund accounting, and Re-Sale Accounting (for Defense Commissary Agency (DeCA).

The DAI program modernizes the Defense Agencies’ financial management processes by streamlining financial management capabilities, addressing financial reporting material weaknesses, and supporting financial statement auditability for the majority of agencies, field activities and non-Service organizations across the DoD. DAI supports a transformation of budget, finance, and accounting processes across participating defense agencies to help improve the quality of financial information, supporting financial auditability and decision-making. The DAI business solution, once fully implemented, will provide a near real-time, web-based system from a “.mil” environment of integrated business processes that will enable in excess of 84,000 Defense Agency financial managers, program managers, auditors, and Defense Finance and Accounting Service (DFAS) representatives to make sound financial business decisions.

The DAI implementation approach deploys a standardized system solution that is consistent with requirements in the Federal Financial Management Improvement Act (FFMIA) and the DoD Business Enterprise Architecture (BEA), while leveraging the out-of-the-box capabilities of the selected Commercial-Off-the-Shelf (COTS) product, Oracle e-Business Suite (EBS), Release 12.2.8 (R12). DAI implemented an Oracle Office of Management and Budget Financial Systems Integration Office (FSIO) qualified COTS financial management business solution with common business processes and data standards. The Program Management Office (PMO) will not develop any objects that are included in core COTS software or services (i.e. vendor data from Federal authoritative sources).



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>
<p>DAI supports the FY22-26 Department of Defense Financial Management Strategy. Strategic Goal 2, Optimize taxpayer dollars for the highest value outcomes; Strategic Goal 3, Increases the integrity of financial results; Strategic Goal 4, Simplify and optimize our end-to-end business environment; and Strategic Goal 5, Empower data-driven, fiscally informed decision making.</p> <p>DAI is currently implemented at 26 Defense organizations and the Office of the Under Secretary of Defense, Comptroller (OUSD(C)). The program office is also responsible for operational sustainment of the system. Funds are required for additional government and contractor support, licenses, maintenance, and hardware to accomplish the remaining capability developments and organizational implementations. In 2017, 2018, 2019, and 2020, DAI received unmodified audit opinions with no comments.</p> <p>The benefits of DAI are:</p> <ul style="list-style-type: none"> <li>• Labor efficiencies (entering data once) and shared across all business processes (modules), workflows and lifecycle in a modern system;</li> <li>• Reduction in contractor support;</li> <li>• Financial visibility (Access to real-time financial data transactions);</li> <li>• Enabling agility and resilience in execution (No silos – anyone/anywhere can backfill and work continues);</li> <li>• Retiring legacy systems;</li> <li>• Shared common business processes and employment of Federal/DoD Enterprise data standards (i.e., SFIS, SLOA, Procurement Data Standard (PDS) and Procurement Request Data Standard (PRDS)); and United States Standard General Ledger (USSGL) Chart of Accounts to resolve DoD material weaknesses and deficiencies.</li> <li>• Reducing reliance on custom Reports, Interfaces, Conversions, Extensions, Forms and Workflows by leveraging application upgrades</li> <li>• Enhanced Internal controls to ensure accurate data, regulatory compliance and ensuring segregation of duties</li> <li>• Significantly reduced data reconciliation requirements; and</li> <li>• Enhanced analysis and decision support capabilities.</li> </ul> <p>The DAI PMO also provides system integration services that include: acquisition/financial management, project management; configuration management; developing required Reports, Interfaces, Conversions, Extensions, Forms and Workflows (RICE-FW) objects; testing (cyber security, integration, functional, performance, conversion, user acceptance, operational); training (train the trainer/change management preparing the users for the cross functional skills and awareness needed to perform well with an integrated enterprise resource planning system); system deployment; data conversion; information assurance; database administration; as well as studies, coordination/analysis support.</p> <p>DLA provides the Milestone Decision Authority (MDA), DLA Acquisitions (J7), and DLA Information Operations provides the Program Executive Officer (PEO), program manager, and PMO staff. The DAI PMO relies on DLA Acquisitions for most contracting support. Defense Information Systems Agency (DISA) data centers provide production, test and development, as well as Continuity of Operations (COOP) hosting, and the Joint Interoperability Test Command (JITC) for interoperability and performance testing. The DAI PMO serves as systems integrator.</p>		

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> Defense Agencies Initiative (DAI) - Financial System</p> <p><b>Description:</b> In FY 2021, the DAI PMO accomplished:</p> <ul style="list-style-type: none"> <li>• Obtained 5th consecutive annual Unmodified Opinion by an Independent Public Auditor (best outcome).</li> <li>• Deployed DAI Increment 3 Rel 3, to existing organizations and to Defense Commissary Agency, the Joint Staff and National Defense University.</li> <li>• Deployed DAI Time &amp; Labor Release to Unites States Marine Corps, (over 17K new personnel) based on a Department of Navy request.</li> <li>• Developed/Tested agency unique requirements and completed the study of 4th Estate common/core capabilities.</li> <li>• Studied Agency unique requirements for Defense Finance and Accounting Service and Naval Special Warfare Command.</li> <li>• Developed necessary work instructions and training materials.</li> <li>• Supported the Financial Management (FM) &amp; time/labor operations for over 71K users at 27 organizations.</li> <li>• Supported the DoD RMF process to support actions included in the Authorizing Official's (AO) required Plan of Actions and Milestones including an independent FISCAM Test of Design/Test of Effectiveness to result in an AO decision to award an Authority to Operate.</li> <li>• Continued to mature the GRC capabilities by expanding Enterprise controls: Configuration, Access, Prevention &amp; Transactions supporting audit findings, recommendations &amp; CAPs.</li> <li>• Maintained the technical operations including: application of DISA Security Technical Implementation Guides, hardware &amp; software currency for servers operating systems, middleware &amp; applications including patches; overseeing internal processes within the Data Center enclaves; &amp; the daily operation of several interfaces with external systems leveraging DLA Defense Automated Addressing System (DAAS), as well as established Federal Enterprise system web services.</li> <li>• Conducted regular adversarial assessments, Risk Management Framework (RMF) continuous monitoring including code scans, and a Cooperative Vulnerability and Penetration Assessment.</li> <li>• Obtained an interim Interoperability Certification or an Authority to Connect to the DoD Global Information Grid.</li> <li>• The Defense Logistics Agency contracted for an independent public accounting firm to conduct the annual FFMIA and SSAE 18 assessments and conduct Cyber security assessments on the system.</li> <li>• Updated interfaces with 38 other systems: (Bi-directional (25), Inbound (6), &amp; Outbound (7)).</li> <li>• Expanded the utility of Robotic Process Automation to include repetitive PMO functions.</li> </ul> <p><b>FY 2022 Plans:</b> In FY 2022, the DAI PMO will:</p> <ul style="list-style-type: none"> <li>• Deploy Release 4 to the existing customer organization, along with United States Marine Corps.</li> <li>• Develop and deploy Release 4.1, Time and Labor, to existing using organizations and the new DFAS and Naval Special Warfare Command (NSWC) organizations in June 2022.</li> </ul>	21.403	31.136	23.171

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>• Develop Release 5, Full Financials, to deploy to existing organizations along with DFAS and NSWC in Oct 2022.</li> <li>• Conduct pre-deployment planning and Business Process Re-engineering (BPR) with new Agencies, Inc 3 Rel 5 Agency mocks and SE technical reviews. Support a shortened implementation schedule for NSWC.</li> <li>• Support 29 organizations as they undergo audit by helping them with answering auditor RFIs and helping them locate required artifacts to maintain consistency of approach with all that use DAI.</li> <li>• Support the Office of Secretary of Defense (OSD) Reform Initiatives including DTM and G-Invoicing Support includes monthly progress meetings and some coding.</li> <li>• Maintain Application User Licenses to support additional users and increased data storage costs based on application data growth.</li> <li>• Conduct a service provider, independent audit, SSAE-19, and support DLA Audit Readiness Office in developing an assertion package supporting DLA SOC 1 and resolve any identified NOFs.</li> <li>• Have DISA data centers maintain all the operations s/w and h/w in the suite. DAI PMO will use data centers' SSAE 19 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report.</li> <li>• Conduct BEA compliance assessment against the current version (v10.0 for compliance) document results in the Department's assessment portal and conduct BPR for newly joining agencies.</li> <li>• Resolve critical software errors and critical statutory/regulatory enhancements that impact operations and incorporate changes identified during BPR, BEA compliance assessment and the Audit generated corrective action plans.</li> <li>• Support RMF process, maintaining activity to support actions included in the AO's required Plan of Action &amp; Milestone (POA&amp;M) to maintain the Authorization to Operate (ATO).</li> <li>• Expand use of Robotic Process Automation (RPA) scripts to increase speed of data entry, ensuring data accuracy from data entry through the entire requisition life cycle.</li> <li>• On-going efforts to support departmental efforts for Identity, Credential, and Access Management (ICAM) access control intuitive.</li> </ul> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>• Will deploy Release 5 to the existing customer organization, along with DFAS and NSWC.</li> <li>• Will develop Release 6, Full Financials, to deploy to existing organizations along with DISA DWCF in Oct 2023.</li> <li>• Will conduct pre-deployment planning and BPR, Inc 3 Rel 6 Organization mocks and SE technical reviews.</li> <li>• Will support 29 organizations as they undergo audit by helping them with answering auditor RFIs and helping them locate required artifacts to maintain consistency of approach with all that use DAI.</li> <li>• Will support the OSD Reform Initiatives including DTM and G-Invoicing Support includes monthly progress meetings and some coding.</li> <li>• Will maintain Application User Licenses to support additional users and increased data storage costs based on application data growth.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>• Will conduct a service provider, independent audit, SSAE-19, and support DLA Audit Readiness Office in developing an assertion package supporting DLA SOC 1 and resolve any identified NOFs.</li> <li>• Will have DISA data centers maintain all the operations software and hardware in the suite. DAI PMO will use data centers' SSAE 19 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report. Support development of some cloud hosting activities in preparation for migration.</li> <li>• Will conduct BEA compliance assessment against the current version (v10.0 for compliance) document results in the Department's assessment portal and conduct BPR for newly joining agencies.</li> <li>• Will resolve critical software errors and critical statutory/regulatory enhancements that affect operations and incorporate changes identified during BPR, BEA compliance assessment and the Audit generated corrective action plans.</li> <li>• Will support RMF process maintaining activity to support actions included in the AO's required POA&amp;M to maintain the ATO.</li> <li>• Will expand the use of RPA scripts to increase speed of data entry, ensuring data accuracy from data entry through the entire requisition life cycle.</li> <li>• On-going efforts to support departmental efforts for ICAM access control intuitive.</li> </ul> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The decrease from FY 2022 to FY 2023 is due to additional funding appropriated in FY 2022 for DAI deploying financial capabilities to United States Marine Corps (USMC) and continuing maturation of DWCF accounting capabilities necessary to meet Defense Finance and Accounting Service (DFAS) requirements.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	21.403	31.136	23.171

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

DAI is developed and implemented using an evolutionary/incremental strategy including major annual software releases to accommodate upgrades as required by changes to the Department's BEA including new laws, regulations and policies as governed by its Functional Sponsor.

DAI Increments 1 and 2 are in sustainment. When Increment 3, Release 1 went live in October 2018, it subsumed Increment 2; therefore, only one DAI production baseline exists at any point in time.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Logistics Agency</b>											<b>Date: April 2022</b>				
<b>Appropriation/Budget Activity</b> 0400 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agencies Initiative (DAI) - Financial System					<b>Project (Number/Name)</b> 01 / Defense Agencies Initiative - Financial System						

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
DAI Application Development Support Services	C/CPFF	Application Development support to DAI : Virginia	-	-		19.876	Mar 2022	18.474	Mar 2023	-		18.474	Continuing	Continuing	-
Requirements Management (RM) Support	MIPR	DISA : Fort Meade, MD	1.534	0.256	Oct 2020	0.378	Oct 2021	0.389	Oct 2023	-		0.389	Continuing	Continuing	Continuing
DCPDS/DAI Interface File Changes	MIPR	DLA Finance : Fort Belvoir, VA	0.045	0.008	Feb 2021	0.193	Feb 2022	-		-		-	Continuing	Continuing	Continuing
Prior Year Contracts	Option/Various	MULTI : MULTI	174.443	17.832		0.000		-		-		-	-	-	N/A
<b>Subtotal</b>			176.022	18.096		20.447		18.863		-		18.863	Continuing	Continuing	N/A

**Remarks**  
 Prior Year Contracts include: Global Model Infrastructure C/FFP CACI: Chantilly, VA \$20.594 million; Global Model Implementation C/FFP CACI: Chantilly, VA \$39.580 million; Global Model Compliance C/FFP CACI: Chantilly, VA \$41.422 million; Global Model P2P C/FFP IBM: Bethesda, MD \$32.018 million; Global Model A2R C/CPFF CACI Inc Federal: Chantilly, VA \$18.845 million; DAI Data Conversion Support Option/FFP Terathink: Reston, VA \$2.857 million; Oracle Time & Labor Software License and Maintenance C/FP Mythics, Inc: Virginia Beach, VA \$1.020 million; Global Model CAD C/CPFF CSC: Falls Church, VA \$3.205 million; Jaws Professional Licenses C/FFP Immix: McLean, VA \$0.017 million; Oracle Advanced Compression Licenses \$1.622 million; Oracle Contract Lifecycle Management Licenses C/FFP Mythics Inc: Virginia Beach, VA \$7.408 million; Oracle Licenses MIPR DISA: Pensacola, FL \$5.446 million; Kurzweil 5000 508 Assistive Tech Licenses C/FFP Envision Technology Inc: Bethesda, MD \$0.008 million; Dragon Naturally Speaking 508 C/FFP Red River Computer Co: Claremont, NH \$0.007 million; DISA/DITCO Delinquent Balance MIPR DISA DITCO: Scott AFB, IL \$0.017 million; and DBTA Section 1553 MIPR DFAS: Columbus, OH \$0.377 million.

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Estimated SBIR/STTR:	TBD	TBD : TBD	3.653	0.712	Jun 2021	1.118	Jun 2022	0.817	Jun 2023	-		0.817	Continuing	Continuing	Continuing
<b>Subtotal</b>			3.653	0.712		1.118		0.817		-		0.817	Continuing	Continuing	N/A

**Remarks**  
 SIBR/SITTR Tax is taken off the topline

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Logistics Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agencies Initiative (DAI) - Financial System	<b>Project (Number/Name)</b> 01 / Defense Agencies Initiative - Financial System
--	--	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DISA Hosting: Test and Development	MIPR	DISA : Pensacola, FL	16.077	2.000	Oct 2021	6.773	Oct 2021	3.000	Oct 2022	-		3.000	Continuing	Continuing	Continuing
Interoperability	MIPR	JITC : Fort Meade, MD	4.200	0.200	May 2021	1.226	Oct 2021	0.079	Oct 2022	-		0.079	Continuing	Continuing	Continuing
Performance and Regression Testing	MIPR	JITC : Fort Huachuca, AZ	4.280	0.300	Nov 2020	1.422	Oct 2021	0.412	Oct 2022	-		0.412	Continuing	Continuing	Continuing
DCPS Testing	MIPR	DFAS : Indianapolis, IN	0.329	0.095	Oct 2020	0.150	Oct 2021	-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			24.886	2.595		9.571		3.491		-		3.491	Continuing	Continuing	N/A

**Remarks**  
Previous MIPR actions: Operational Test and Evaluation, \$4.742

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	204.561	21.403	31.136	23.171	-	23.171	Continuing	Continuing	N/A

**Remarks**

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency

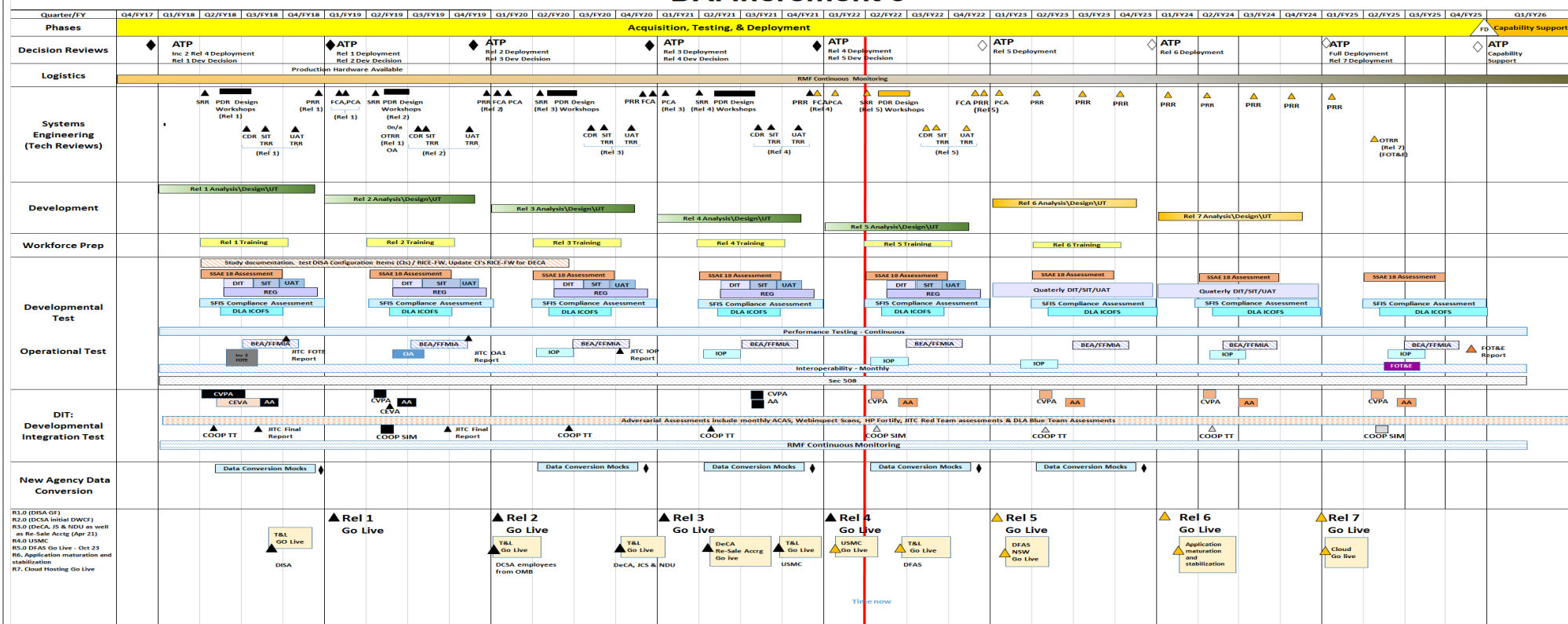
Date: April 2022

Appropriation/Budget Activity  
0400 / 5

R-1 Program Element (Number/Name)  
PE 0605080S / Defense Agencies Initiative  
(DAI) - Financial System

Project (Number/Name)  
01 / Defense Agencies Initiative - Financial  
System

DAI Increment 3



508: Section 508/Disability Test  
AA: Adversarial Assessment  
ACAS: Assured Compliance Assessment Solution  
ATO: Authority to Operate (Includes Production & COOP)  
ATP: Authority to Proceed Decision Review  
BEA: Business Enterprise Architecture  
CCM: Center for Countermeasures  
CDR: Critical Design Review  
CEVA: Cyber Economic Vulnerability Assessment  
COOP: Continuity of Operations Testing  
COVP: Cooperative Vulnerability & Penetration Assessment

DCSA: Defense Counterintelligence and Security Agency  
DECA: Defense Commissary Agency  
DISA: Defense Information Security Agency  
DT: Development Test  
FCA: Functional Configuration Audit  
FD: Full Deployment  
FF: Full Financials  
FFMIA: Federal Financial Management Information Act  
FOT&E: Follow on Operational Test & Evaluation  
GRC: Governance, Risk and Compliance  
IA: Information Assurance

ICOFIS: Internal Controls over Financial Systems  
IOT&E: Initial Operational Test & Evaluation  
JCS: Joint Chiefs of Staff  
JITC: Joint Interoperability Test Command  
MS: Milestone  
NSW: Naval Special Warfare Command  
OA: Operational Assessment  
OTA: Operational Test Authority  
OTRR: Operational TRR  
P2P: Procure to Pay  
PCA: Physical Configuration Audit  
PDR: Preliminary Design Review  
PERF: Performance Test  
PIR: Post Implementation Review

PROD: Production  
R: Release  
R12: Oracle E-Business Suite, Release 12  
REG: Regression Test  
RMF: Risk Management Framework  
SFIS-CA: Standard Financial Information Structure - Compliance Assessment  
SIM: Simulation  
RMF: Risk Management Framework  
SFIS-CA: Standard Financial Information Structure - Compliance Assessment  
SIM: Simulation  
SIT: Systems Integration Test  
SOD: Segregation of Duties

SRR: Software Requirements Review  
SSAE 18: Statement of Standards for an Attestation Engagement  
StdS: Standards  
T&D: Test and Development  
T&L: Time & Labor  
TRR: Test Readiness Review  
TT: Tabletop  
UAT: User Acceptance Testing  
USMC: United States Marine Corps  
USSGL: United States Standard General Ledger  
UT: Unit Test  
WHS: Washington Headquarters Service

**Updated March 8th, 2022**

**\*Note:** WHS deployment included OSD Secretariat offices, Pentagon Force Protection Agency, Defense Test Resources Management Center (DTRMC), Defense Legal Services Agency (DLSA) & US Court of Appeals For Armed Services.

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agencies Initiative (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 01 / <i>Defense Agencies Initiative - Financial System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Defense Agencies Initiative (DAI)</i></b>				
DAI - - See schedule exhibit for more details	1	2018	4	2025



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
01: <i>Small Business Innovative Research</i>	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Defense Logistics Agency's (DLA's) ability to deliver Americans the right logistics solution in every transaction requires more than successful management of the Agency's wholesale supplies and suppliers. It requires supply chain excellence. Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe requires that DLA-managed materiel flow seamlessly and as needed from the nation's industrial base to where it is ultimately used.

DLA's Small Business Innovative Research (SBIR) program seeks to solicit innovative research and development proposals from the small business community to address DLA's strategic and operational requirements. All selections shall demonstrate and involve some technical risk with yet to be determined technical feasibility. Phase I proposals should demonstrate the feasibility of the proposed technology and provide a strong business case for Phase II investment for a prototype or at least a proof-of-concept demonstration. A favorable return on investment and commercialization potential have a strong influence on Phase II selections.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	8.606	11.500	0.000	-	0.000
Total Adjustments	8.606	11.500	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	8.606	11.500			

**Change Summary Explanation**

FY 2021:

Defense Logistics Agency (DLA) SBIR/STTR taxes are \$4.275 million and Defense Microelectronics Agency (DMEA) are \$4.330 million.

FY 2022:

Defense Logistics Agency (DLA) SBIR/STTR taxes are \$4.879 million and Defense Microelectronics Agency (DMEA) are \$6.621 million.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>				<b>Project (Number/Name)</b> 01 / <i>Small Business Innovative Research</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
01: <i>Small Business Innovative Research</i>	59.747	8.606	11.500	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Small Business Innovation Program (SBIP) explores innovative concepts pursuant to Public Law 106-554 (Small Business Reauthorization Act of 2000) and Public Law 107-50 (Small Business Technology Transfer Program Reauthorization Act of 2001), which mandates a two-phase competition for small businesses with innovative technologies with a defense application as well as a commercial value. The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs will develop new dual-use technologies for possible future DLA operational and sustainment requirements. DLA strives to make it fast and easy for customers to work with our Agency by quickly understanding current requirements and anticipating their future needs. In support of the major subordinate commands and military Services, Small Business Innovation Research (SBIR) helps to ensure readiness and lethality across the end-to-end supply chain by optimizing retail and industrial support, which ultimately reduces risk and increases efficiency, and positions solutions for Warfighter requirements.

Dual-use means the technologies will be judged on their potential for future private sector investment both as a vehicle for reducing development time and cost, unit costs of new DLA technologies, and as a route to national economic growth through new commercial products. DLA will conduct the competition as well as award and manage the contracts.

The DLA's SBIR/STTR investments are divided into multiple Research Areas that are aligned with the National Defense Strategy and the DLA Strategic Plan.

**DLA R&D SBIP Strategic Focus Areas**

- Nuclear Enterprise Support: To maintain nuclear weapons systems readiness, SBIP seeks to qualify alternate sources of supply through the reverse engineering of technical data and/or source approval processes to improve availability for consumable parts for weapons systems with limited or diminishing sources of supply.
- Force Readiness and Lethality: To improve life cycle performance through technological advancement, innovation and reengineering, SBIP strives to mitigate single points-of-failure that threaten the readiness of weapons systems used by our Warfighters.
- Supply Chain Innovation: To maintain a secure and resilient supply chain, SBIP provides opportunities for our small business industrial base to engage in technological innovations that enhance supply chain operations, improve procurement lead times, and reduce life cycle costs.
- Supply Chain Assurance: To ensure supply chain readiness, SBIP endeavors to secure the microelectronics supply chain, adopt industrial base best practices associated with counterfeit risk reduction, and develop a domestic supply of rare earth elements essential to maintain the integrity of DLA's complex supply chain.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>	<b>Project (Number/Name)</b> 01 / <i>Small Business Innovative Research</i>
--	--	--

DMEA  
- Advanced microelectronics concepts, technologies, and applications

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> SBIR Accomplishments/Plans</p> <p><b>Description:</b> DLA FY 2021 SBIR/STTR Accomplishments:</p> <ul style="list-style-type: none"> <li>- Grew Small Business capability to combat repair part sourcing challenges associated with weapon system aging, obsolescence, and DMSMS through innovation, reverse engineering, and advanced manufacturing techniques—510 projects awarded; 141 complete</li> <li>- Developed domestic suppliers for critical REEs, and derived materials and parts, such as magnets. Successfully developed recycling technologies for rare earth elements/magnets and qualified products for a drop-in replacement for high performance weapons systems (i.e. – F-35s/F-16s, JDAMs, turbine engines for various fighter jets, etc.)</li> <li>- Sponsored innovative manufacturing technologies to enhance supply chain operation and improve weapon system lifecycle performance (i.e. – Fuel Cells, A/C Canopy Seals, Braking Systems, etc.)</li> <li>- Developed Additive Manufacturing process monitoring and control system for Laser Powder Bed Fusion and Directed Energy Deposition methods – Transition system to OEMs, Army ARL, Air Force, NASA and other research institutions.</li> </ul> <p>DMEA SBIR/STTR: Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations.</p> <p>DMEA FY 2021 SBIR Accomplishments - The SBIR Program contributed to the advancement of microelectronics concepts, technologies, and applications through the following topics initiated in FY21:</p> <ul style="list-style-type: none"> <li>- 4H-SiC BiCMOS Development on 6” wafers in a High-Volume Production Foundry</li> <li>- Highly-Integrated SiC BiCMOS/Power Device Technology: Design, Modeling, and Reliability Metrics</li> <li>- Manufacturing Platform for High-Temperature CMOS ICs on SiC</li> <li>- Intelligent Automatic Serial Sectioning using Short Pulse Laser Polygon Scanning</li> <li>- Robotic Microelectronic Planar Serial Sectioning System (21-RD-282)</li> </ul> <p>DMEA FY 2021 STTR Accomplishments - The STTR Program contributed to the advancement of microelectronics concepts, technologies, and applications through the following topics initiated in FY21:</p> <ul style="list-style-type: none"> <li>- Micro-Supercapacitor for Integration with MEMS Energy Harvesting and CMOS ICs</li> <li>- High-Performance Zinc-ion Hybrid MEMS Supercapacitors with High Energy Density</li> <li>- Graphenated Carbon Nanotube Based MEMS Supercapacitors</li> <li>- Energy &amp; Power Densed Supercapacitor: On-Chip Integration in MEMs Fabrication</li> </ul>	8.606	11.500	0.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>	<b>Project (Number/Name)</b> 01 / <i>Small Business Innovative Research</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Integrated Micro Super-Capacitors via Laser Induced Graphene from Photoresist</p> <p><b>FY 2022 Plans:</b> DLA SBIR/STTR:</p> <ul style="list-style-type: none"> <li>- Continue to expand Small Business capability (\$2 million) to combat repair part sourcing challenges associated with weapon system aging, obsolescence, and DMSMS through innovation, reverse engineering, and advanced manufacturing techniques</li> <li>- Expand domestic suppliers for critical REEs (\$1 million), and derived materials and parts, such as magnets. Refine recycling technologies for rare earth elements/magnets and qualified products for a drop-in replacement for high performance weapons systems (i.e. – F-35s/F-16s, JDAMs, turbine engines for various fighter jets, etc.)</li> <li>- Continue sponsorship of innovative manufacturing technologies to enhance supply chain operation and improve weapon system lifecycle performance (\$1 million) (i.e. – Fuel Cells, A/C Canopy Seals, Braking Systems, etc.)</li> <li>- Further deploy and advance Additive Manufacturing process monitoring and control system for Laser Powder Bed Fusion and Directed Energy Deposition methods as well as develop advance Additive Manufacturing metal powder materials (\$200 thousand).</li> <li>- The remaining balance (\$679 thousand) is for program support, permissible 3% (Admin Plan funding).</li> </ul> <p>DMEA SBIR/STTR: Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations.</p> <p><b>FY 2023 Plans:</b> DLA SBIR/STTR: Continue execution of all active Phase I and Phase II SBIR/STTR Projects. Work with other R&amp;D Programs and other divisions with DLA to identify requirements that meet DLA’s long and short term Strategic Objectives. Provide adequate guidance and mentorship to Phase II to projects to increase the likelihood of transition into government programs of record or commercial ventures. Issue Phase III contracts.</p> <p>DMEA SBIR/STTR: Continue to seek innovative technical solutions to DOD microelectronics research and development needs and increase private sector commercialization of these innovations.</p> <p>Emerging results from these FY 2022 SBIR efforts will be reported in FY 2023:</p> <ul style="list-style-type: none"> <li>- Synthesizable Register Transfer Logic (RTL) Assertions</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>	<b>Project (Number/Name)</b> 01 / <i>Small Business Innovative Research</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
- Ultra High Voltage Silicon Carbide (SiC) Gated Devices			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> SBIR and STTR tax amounts are based on enacted budgets. FY 2023 had a higher amount of Congressional Adds than FY 2022.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.606	11.500	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

The SBIR acquisition process seeks to match projects with DLA's Strategic Focus Areas. The goal is to align SBIR/STTR developed technology with current and future DLA requirements. DLA solicits all new project execution work through the DOD SBIR Broad Agency Announcement (BAA). There are three separate solicitation periods throughout each year. (Jan-Feb, May-Jun, and Sep-Oct)

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Pacific Disaster Center</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing
03: <i>Pacific Disaster Center</i>	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Pacific Disaster Center (PDC) has been in operation since February 1996. The PDC is a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. It is functionally within the organization of the Office of the Under Secretary of Defense (Acquisition and Sustainment) (OUSD(A&S)) and the Defense Logistics Agency (DLA). The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC develops new and innovative technologies to operate an (unclassified) integrated multi-hazard monitoring, early warning and decision support system, called DoD RAPIDS, for the Department.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	1.785	1.799	0.000	-	0.000
Current President's Budget	1.720	5.733	1.875	-	1.875
Total Adjustments	-0.065	3.934	1.875	-	1.875
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.065	-0.066			
• Adjustments to Budget Year	-	-	1.875	-	1.875

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 03: *Pacific Disaster Center*

Congressional Add: *Global Water Security Center*

Congressional Add Subtotals for Project: 03

Congressional Add Totals for all Projects

	FY 2021	FY 2022
	-	4.000
Congressional Add Subtotals for Project: 03	-	4.000
Congressional Add Totals for all Projects	-	4.000

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Pacific Disaster Center</i>				<b>Project (Number/Name)</b> 03 / <i>Pacific Disaster Center</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
03: <i>Pacific Disaster Center</i>	12.608	1.720	5.733	1.875	-	1.875	1.896	1.885	1.893	1.907	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The PDC has provided operational support for an (unclassified) integrated multi-hazard hazard monitoring, early warning and decision support system, called RAPIDS, for the department since 2007. The system, covering global hazard is frequently used by COCOMS, particularly PACOM and SOUTHCOM, for HA/DR missions and exercises, and was recently selected as one of the most effective systems in a position paper by the department, reviewing all unclassified information sharing systems. "Expanded use of RAPIDS across the DoD at the Combatant Commands, Joint Task Force, and by deployed units from the services" was identified as "a primary Joint Staff objective" in a memorandum dated July 6, 2017. RAPIDS is also regularly used at the National Guard Bureau Joint Operations Center for monitoring events and crises of interest.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Pacific Disaster Center (PDC)	1.720	1.733	1.875
<p><b>Description:</b> The Under Secretary of Defense for Acquisition and Sustainment, (USD(A&amp;S)), is the Operational Sponsor and functional Office of Secretary of Defense (OSD) Principal Staff Assistant (PSA) for the program. USD(A&amp;S) will continue to provide acquisition oversight authority for the program.</p> <p>The PDC has been in operation since February 1996, as a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. Pacific Disaster Center (PDC) functions, manpower, and budget resources transferred to the OUSD (A&amp;S) and the Defense Logistics Agency (DLA) in October 2011.</p> <p>The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC's applications and information products enhance preparedness, situational awareness, and civil-military communications for humanitarian missions worldwide, while its national-level socio-economic Risk and Vulnerability Assessments help inform strategies by measuring indicators for national resiliency using scientific methods. The DLA J32, Strategic Programs and Integration office oversees program management responsibilities related to the PDC. The Program Manager's primary responsibility is for management and stewardship of governmental funds provided in Defense Department appropriations for DoD missions associated with DoD CrM, HA/DR, Theater Security Cooperation, and Defense Support to Civil Authorities (DSCA). In doing this, the Program Management Office develops and provides policy, oversight and guidance, and jointly develops strategic guidelines, programmatic content and priorities with the UH and PDC. The PDC Program Office also serves as a support element of the Hawaii-based organization especially in the area of gaining Federal agency support and resources, as well as business opportunities.</p>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Pacific Disaster Center</i>	<b>Project (Number/Name)</b> 03 / <i>Pacific Disaster Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>FY 2022 Plans:</b> The FY 2022 Annual Plan was published and presented during the Program Management Review in December 2021. Continue to modernize and sustain the DisasterAWARE system to support the DoD's Risk Assessment, Planning and Incidents Decision Support (RAPIDS) as well as DisasterAWARE Pro (supporting the Department's and it's partner's Humanitarian Assistance and Disaster Recovery (HA/DR) and Defense Support of Civil Authorities (DSCA) missions. The plan is also moved to emphasize integration of climate change information, AI tools, and asset protection in support of DoD stakeholders and their missions as part of the new CA strategic alliance with the DoD.</p> <p><b>FY 2023 Plans:</b> FY 2023 Annual Plan is to be determined.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease from FY 2022 to FY 2023 is due to the FY 2022 Congressional Add of \$4 million for Global Water Security Center.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	1.720	1.733	1.875

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> Global Water Security Center</p> <p><b>FY 2022 Plans:</b> The Global Water Security Center (GWSC) was approved by The University of Alabama's Board of Trustees in June 2021 under the auspices of the University of Alabama's Alabama Water Institute (AWI). Through ground-breaking research and analysis, operationalizing applied science, and developing and implementing best practices in risk communications, GWSC will create the most reliable water and environmental security-related information, tools, and analysis. By communicating to key U.S. decision-makers in contextually appropriate ways, GWSC will aid U.S. water security interests and improve outcomes like water access, food security, economic opportunities, and health. The center's key stakeholders could include: DoD, Intelligence Community, State Department, Coast Guard, USGS, NOAA, FEMA, Red Cross, USAID, and many other academia and private stakeholders.</p> <p>The Global Water Security Center's objectives include:                      1) Advancing water and environmental security science by facilitating research through collaborative partnerships with academia, government, and industry.                      2) Develop and maintain water and environmental security information and data that are consistent, up-to-date, and reliable. This will improve engagement with partners while encouraging them to integrate the information into key national security work.</p>	-	4.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Pacific Disaster Center</i>	<b>Project (Number/Name)</b> 03 / <i>Pacific Disaster Center</i>
--	--	---

	FY 2021	FY 2022
3) Advance water and environmental security science by facilitating research through collaborative partnerships with academia, government, and industry.		
<b>Congressional Adds Subtotals</b>	-	4.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

PDC projects beyond the baseline Situational Awareness & Decision Support Applications/Tools architecture (Atlas/DisasterAWARE Pro/RAPIDS) undertaken in support of the DoD Cooperative Agreement (CA) with the University of Hawaii (UH) are from PDC customers (e.g., DoD, NGOs, other nations, academia, and industry). The PDC prepares the public, disaster managers, governments, and others to mitigate the effects of disasters. The goal is to have people and technology work together to preserve life, safeguard livelihoods, protect property to foster disaster-resilient communities. Projects obtained and funded from this customer base serve as a means to determine PDC product and services relevancy. PDC's expanded risk assessments to include scientific measure of Fragility profiles and Women, Peace, and Security (WPS) are received by Dod and other national policy makers as a base to inform the strategic decision-making process.



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Pacific Disaster Center</i>	<b>Project (Number/Name)</b> 03 / <i>Pacific Disaster Center</i>
--	--	---

	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>Pacific Disaster Center</i></b>																												
Pacific Disaster Center (PDC)																												

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0708047S / Defense Property Accountability System (DPAS)
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing
ABC: DPAS	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Property Accountability System (DPAS) provides the Department an asset accountability system which is fully compliant with financial reporting regulations and has a clean audit history. With an integrated accountability, utilization, maintenance, and warehouse capability, DPAS provides the Department an enterprise solution for asset management.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	7.301	6.390	0.000	-	0.000
Current President's Budget	7.034	6.157	3.264	-	3.264
Total Adjustments	-0.267	-0.233	3.264	-	3.264
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.267	-0.233			
• Adjustments to Budget Year	-	-	3.264	-	3.264

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Logistics Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708047S / Defense Property Account ability System (DPAS)	<b>Project (Number/Name)</b> ABC / DPAS
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
ABC: DPAS	10.176	7.034	6.157	3.264	-	3.264	3.233	3.044	3.059	3.082	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The DPAS system provides accountability and management functionality of General Equipment, Real Property and Internal Use Software, to the Department. The budgeted projects will provide enhancements to the existing capability, ensure efficient operation, and provide solutions for process gaps as they are discovered. The greater enhancements to DPAS allow the DOD to sunset legacy systems as DPAS assimilates the legacy functionality into the overall operations.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Technical Refresh	7.034	6.157	3.264
<p><b>Description:</b> During the Technical Refresh, changes to the system processes will be made so accounting transactions for equipment assets from the warehouse portion of the system will mirror the processes in the current Property Accountability. The processes to support the Army to field assets from the Program Executive Offices to their field units will also be in this version.</p> <p>FY 2021 Accomplishments: -DPAS completed an interface with the Procurement Integrated Enterprise Environment (PIEE). This interface automated the tracking of transfers between the DoD and Contract Partners and reports those transfers to the Government Furnished Property Registry. This interface is essential to enable the Department to address the material weakness that has been reported to Congress pertaining to Government Furnished Property. DPAS is the only Accountable Property System of Record (APSR) that is currently in compliance with interfacing to the PIEE.</p> <p>-In FY 2021, the DPAS Program Management Office (PMO) assisted the Joint Strike Fighter (JSF) with the development of their Process Map and physical inventory for their General Equipment. The JSF completed the DPAS implementation of the Government Furnished Equipment and the Program Owned assets. These efforts remediated the accounting and accountability issues associated with the material weakness reported by the DoDIG from the Department-wide financial statement audit.</p> <p><b>FY 2022 Plans:</b> Complete the migration from the DISA environment to the DLA Azure Gov Cloud environment. Complete the Implementation of the Air Force Support Equipment Maintenance Activities and the Air Force Contractor Inventory Control Points for Government Furnished Material.</p> <p><b>FY 2023 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708047S / <i>Defense Property Accountability System (DPAS)</i>	<b>Project (Number/Name)</b> ABC / DPAS

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Complete the technical refresh which includes: improve functionality, increase scalability, upgrade processes, decrease sustainment costs, and improve user experience.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> There was a significant decrease from FY 2022 to FY 2023. Additional funding was appropriated in FY 2022 to support the Technical Refresh.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.034	6.157	3.264

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A





**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2023 Defense Logistics Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708047S / <i>Defense Property Accountability System (DPAS)</i>	<b>Project (Number/Name)</b> ABC / DPAS
--	--	--

Fiscal Year	FY2021				FY2022				FY2023				FY2024				FY2025				FY2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Research																								
Design																								
Development																								
Testing																								
Implementation																								
Research																								
Design																								
Development																								
Testing																								
Implementation																								
Research																								
Design																								
Development																								
Testing																								
Implementation																								

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Logistics Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708047S / <i>Defense Property Accountability System (DPAS)</i>	<b>Project (Number/Name)</b> ABC / DPAS

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Defense Property Accountability System (DPAS)</i></b>				
Defense Property Accountability System (DPAS)	1	2021	4	2026

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Security Cooperation Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Security Cooperation Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 453**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 465**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 467**  
**Exhibit R-2s..... Volume 5 - 469**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
-----	-----	-----	-----
Research, Development, Test & Eval, DW		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Operational Systems Development	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				
<u>Summary Recap of FYDP Programs</u>						
Research and Development	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Operational Systems Development		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317
Summary Recap of FYDP Programs -----			
Research and Development		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Operational Systems Development	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				
<u>Summary Recap of FYDP Programs</u>						
Research and Development	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Operational Systems Development		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317
<u>Summary Recap of FYDP Programs</u>			
Research and Development		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Security Cooperative Agency	6,064	7,398				
Total Research, Development, Test & Evaluation	6,064	7,398				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Defense Security Cooperative Agency		7,398	8,317
Total Research, Development, Test & Evaluation		7,398	8,317

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022				S e c
						Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
198	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	1,756						U
199	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	316						U
202	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	3,992	7,398					U
		Operational Systems Development		6,064	7,398					
Total Research, Development, Test & Eval, DW				6,064	7,398					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
198	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07				U
199	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07				U
202	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07		7,398	8,317	U
Operational Systems Development					7,398	8,317	
Total Research, Development, Test & Eval, DW					7,398	8,317	



UNCLASSIFIED

Defense Security Cooperative Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
198	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	1,756						U
199	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	316						U
202	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	3,992	7,398					U
Operational Systems Development				6,064	7,398					
Total Defense Security Cooperative Agency				6,064	7,398					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Security Cooperative Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
198	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07				U
199	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07				U
202	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07		7,398	8,317	U
Operational Systems Development					7,398	8,317	
Total Defense Security Cooperative Agency					7,398	8,317	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 08:04:13

**UNCLASSIFIED**

Defense Security Cooperation Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
198	07	0605127T	Partner Outreach and Collaboration Support (POCS).....	Volume 5 - 469
199	07	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS).....	Volume 5 - 477
202	07	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)..	Volume 5 - 483

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Security Cooperation Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	0607327T	202	07.....	Volume 5 - 483
Overseas Humanitarian Assistance Shared Information System (OHASIS)	0605147T	199	07.....	Volume 5 - 477
Partner Outreach and Collaboration Support (POCS)	0605127T	198	07.....	Volume 5 - 469

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	21.689	1.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.445
000204: <i>Partner Outreach and Collaboration Support</i>	21.689	1.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.445

**A. Mission Description and Budget Item Justification**

**A. Mission Description and Budget Item Justification**

Partner Outreach and Collaboration Support (POCS) is an Office of the Secretary of Defense (OSD) initiative. The goal of the program is to provide a common information technology platform (GlobalNET) to improve international partner outreach and collaboration efforts in a federated environment. A federated environment – characterized by the capacity of Department of Defense (DoD) institutions and Partners to directly share participants and content across proprietary community websites - fostering networks of partner influencers and enabling better use of DoD resources through collaboration among the Regional Centers for Security Studies, Partnership for Peace (PfP) and international partners, and other DoD educational institutions and communities. GlobalNET currently supports over 80,000 users. The program uses spiral methodology to speed the delivery of open source collaboration technologies the user community. The Defense Security Cooperation Agency (DSCA) oversees execution of the research and development of the GlobalNET effort and its operations, and ensures that the program addresses DoD security cooperation requirements in the context of defense, interagency, and international information sharing and collaboration needs.

The GlobalNET effort focuses on improving collaboration, supporting outreach efforts, and enabling communication among the Regional Centers for Security Studies, the Combatant Commanders (COCOMs), the DSCA, Office of the Under Secretary of Defense for Policy (OUSD(P)), North Atlantic Treaty Organization’s (NATO) Military Partnerships Directorate (MPD), the PfP Consortium of Defense Academies, PfP Partner countries, and other DoD institutions and communities. It provides DoD and international partner security practitioners an unclassified secure platform to share information, communicate and collaborate globally 24/7, and supports administrative activities. It provides the ability to form collaborative communities of interest around security issues. GlobalNET facilitates information sharing and knowledge management concepts in accordance with U.S. policy. POCS implements the Congressional endorsement for the modernization of Defense capabilities in eligible PfP countries relative to their telecommunications infrastructure, and provides allies and partner countries the ability to team in critical cooperative activities that underpin the spirit of the PfP program. The program supports PfP coalition Initiatives through the development of distributive collaboration tools to assist U.S./NATO-approved PfP cooperative activities. This support is important to achieve the interoperability/integration outlined in the Guidance for the Employment of the Force. POCS additionally supports internet-based education, collaboration, exercise simulations, and training center requirements.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Security Cooperation Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	1.986	0.000	0.000	0.000	0.000
Current President's Budget	1.756	0.000	0.000	0.000	0.000
Total Adjustments	-0.230	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.230	-			

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. No funding required in FY 2022 and out.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>	<b>Project (Number/Name)</b> 000204 / <i>Partner Outreach and Collaboration Support</i>
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000204: <i>Partner Outreach and Collaboration Support</i>	21.689	1.756	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.445
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

Partner Outreach and Collaboration Support (POCS) provides a common information technology platform (GlobalNET) for the Department of Defense (DoD) to improve international partner outreach and collaboration efforts in a federated environment. (characterized by the capacity of DoD institutions and Partners to directly share participants and content across proprietary community websites). The POCS initiative - fosters networks of partner influencers and enables better use of DoD resources through collaboration among the Regional Centers for Security Studies, Partnership for Peace (PfP) and international partners, and other DoD educational institutions and communities. GlobalNET currently supports over 80,000 users. The program uses spiral methodology to speed the delivery of open source collaboration technologies the user community. The Defense Security Cooperation Agency (DSCA) oversees execution of the research and development of the GlobalNET effort and its operations, and ensures that the program addresses DoD security cooperation requirements in the context of defense, interagency, and international information sharing and collaboration needs.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> Partner Outreach and Collaboration Support (POCS)	1.756	0.000	0.000	0.000	0.000
<b>FY 2022 Plans:</b> No funding in FY 2022 Required. Product is complete and has moved onto sustainment.					
<b>FY 2023 Base Plans:</b> None.					
<b>FY 2023 OCO Plans:</b> None.					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> None. No funding Required in FY 2022 and out. Product is complete and has moved onto sustainment.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.756	0.000	0.000	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>	<b>Project (Number/Name)</b> 000204 / <i>Partner Outreach and Collaboration Support</i>

**D. Acquisition Strategy**

The GlobalNET effort employs a spiral acquisition strategy ensuring a well-defined model for each institution/community that can be exported globally. The program uses an organizational approach to ensure sustainable, and updated technology and information sharing procedures. By partnering with other U.S. Government activities, existing assets are leveraged to preserve U.S. investments, avoid duplication of effort between activities, and offer economically prudent solutions to improve information sharing and achieve U.S. security cooperation goals. Independent Operational Test teams are brought on to ensure that GlobalNET bears independent validation of the development team's effort.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Security Cooperation Agency											<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0605127T / Partner Outreach and Colla boration Support (POCS)					<b>Project (Number/Name)</b> 000204 / Partner Outreach and Collaboration Support				
<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Security Cooperation Agency	MIPR	Civic Actions : Berkeley, CA	21.689	1.756	Jul 2022	0.000		0.000		0.000		0.000	0.000	23.445	N/A
<b>Subtotal</b>			21.689	1.756		0.000		0.000		0.000		0.000	0.000	23.445	N/A
<b>Project Cost Totals</b>			21.689	1.756		0.000		0.000		0.000		0.000	0.000	23.445	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>	<b>Project (Number/Name)</b> 000204 / <i>Partner Outreach and Collaboration Support</i>
--	--	--

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>GlobelNet Update</b>	
Upgrade Core and Maintenance Releases	
Deploy to Other Institutions	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>GlobelNet Update</b>	
Upgrade Core and Maintenance Releases	
Deploy to Other Institutions	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Partner Outreach and Collaboration Support (POCS)</i>	<b>Project (Number/Name)</b> 000204 / <i>Partner Outreach and Collaboration Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>GlobelNet Update</i></b>				
Upgrade Core and Maintenance Releases	1	2016	4	2022
Deploy to Other Institutions	3	2014	4	2022

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / <i>Overseas Humanitarian Assistance Shared Information System (OHASIS)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	2.611	0.316	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.927
000204: <i>Overseas Humanitarian Assistance Shared Information System</i>	2.611	0.316	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.927

**A. Mission Description and Budget Item Justification**

The Overseas Humanitarian Assistance Shared Information System (OHASIS) provides stakeholders of Department of Defense (DoD) Humanitarian Assistance (HA) programs, including embassy staff, the Combatant Commands (COCOMs), the Defense Security Cooperation Agency (DSCA), and a broad range of DoD and interagency partners, the capability to manage, support, and visualize Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funded projects on a web-based map display, in addition to automating report generation, providing tools to coordinate with Interagency and partner nation stakeholders, and perform a variety of analyses.

Under the direction of DSCA, the U.S. Army Corps of Engineers, Army Geospatial Center (AGC) is responsible for the entire lifecycle--from system definition to development, support, training, and product improvement of OHASIS. The AGC has been responsible for the OHASIS system since 2005 and has evolved it to the present 2.5 system, which contains more than 17,000 active projects valued at more than \$2.5 billion, with a community of over 6,000 users. The OHASIS system is a critical and mission essential means for thousands of military and civilian users to develop, staff, coordinate, approve, fund, implement, manage, and evaluate projects intended to assist the COCOMs in accomplishing theater campaign plan objectives and achieve strategic ends states in support of U.S. national security and foreign policy interests.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.316	0.000	0.000	0.000	0.000
Current President's Budget	0.316	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. No funding required in FY 2022 and out.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)				<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000204: Overseas Humanitarian Assistance Shared Information System	2.611	0.316	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.927
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

The Overseas Humanitarian Assistance Shared Information System (OHASIS) provides stakeholders of Department of Defense (DoD) Humanitarian Assistance (HA) programs, including embassy staff, the Combatant Commands (COCOMs), the Defense Security Cooperation Agency (DSCA), and a broad range of DoD and interagency partners, the capability to manage, support, and visualize Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funded projects on a web-based map display, in addition to automating report generation, providing tools to coordinate with Interagency and partner nation stakeholders, and perform a variety of analyses.

Under the direction of DSCA, the U.S. Army Corps of Engineers, Army Geospatial Center (AGC) is responsible for the entire lifecycle--from system definition to development, support, training, and product improvement of OHASIS. The AGC has been responsible for the OHASIS system since 2005 and has evolved it to the present 2.5 system, which contains more than 16,000 active projects (7,000 of which have been completed) valued at more than \$2.3 billion, with a community of over 6,000 users. The OHASIS system is a critical and mission essential means for thousands of military and civilian users to develop, staff, coordinate, approve, fund, implement, manage, and evaluate projects intended to assist the COCOMs in accomplishing theater campaign plan objectives and achieve strategic ends states in support of U.S. national security and foreign policy interests support of U.S. national security and foreign policy interests.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Overseas Humanitarian Assistance Shared Information System	0.316	0.000	0.000	0.000	0.000
<b>FY 2022 Plans:</b> For FY 2022, intent is to shift Humanitarian Assistance program management activities from OHASIS to SOCIUM.					
<b>FY 2023 Base Plans:</b> None.					
<b>FY 2023 OCO Plans:</b> None.					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>					



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)	<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
None. No funding required in FY 2022 and out. Humanitarian Assistance program management activities will shift from OHASIS to SOCIUM.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.316	0.000	0.000	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

The program employs an incremental technology development and implementation strategy to ensure a desired capability is delivered in a relevant timeframe. This strategy also will continue to leverage industry standard technologies for web development, database technology, database modeling, geographic information systems, reporting, and documentation. As additional users require the system, it will continue to be developed with scalability and maintainability as key considerations. Additionally, this capability will help DoD better collaborate and support external agencies and their programs by leveraging the web services that have been designed in the initial baseline.



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHAS IS)	<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>System Development and Compliance</b>																												
Infrastructure for CAC-enabled Capability																												
Update System and Database Compliance																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>System Development and Compliance</b>																												
Infrastructure for CAC-enabled Capability	██████████																											
Update System and Database Compliance	██████████																											

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)	<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>System Development and Compliance</b>				
Infrastructure for CAC-enabled Capability	4	2020	4	2021
Update System and Database Compliance	1	2021	4	2021

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management Information Systems (G-TSCMIS)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	39.475	3.992	7.398	8.317	-	8.317	8.463	8.589	8.762	8.937	Continuing	Continuing
000205: <i>Global Theater Security Cooperation Management Information Systems (G-TSCMIS)</i>	39.475	3.992	7.398	8.317	-	8.317	8.463	8.589	8.762	8.937	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Global Theater Security Cooperation Management Information System (G-TSCMIS) Program was initially an Office of the Secretary of Defense (OSD) initiative to develop and deploy a common web-based, centrally hosted Management Information System (MIS) that will serve as the information focus point for the Nation's Security Cooperation (SC) efforts by providing decision makers, SC planners and other users with the ability to view, manage, assess, and report SC activities and events. February 11, 2019, OSD assigned the Defense Security Cooperation Agency (DSCA) as the lead for G-TSCMIS and any successor comprehensive security management information system. G-TSCMIS was adopted from a theater specific system, originally developed in 1999, and has been updated at least three times. Nevertheless, it still lacks basic functionality that the SC enterprise, consisting of Geographical Combatant Commands (GCCs), Military Departments, and Defense Agencies, have called for since 2010, including but not limited to SC activity life-cycle management, alignment of activities to strategic guidance, institutionalizing a common operational picture, adaptability and scalability to encompass all SC organizations, and interfacing with other SC-relevant authoritative data sources. Additionally, the 2017 National Defense Authorization Act enacted a number of reforms to the Department of Defense's security cooperation (SC) enterprise, consolidating various security cooperation authorities under a single chapter in Title 10 to provide greater clarity to the scope of these programs and to improve management and oversight of these programs. Through these reforms the Department now manages more than 100,000 SC activities per year at a cost of more than \$10 billion, consisting of 40 distinct programs and support to dozens of different organizations and relies on an antiquated system, the G-TSCMIS to manage them. To meet the FY2017 NDAA requirements, DSCA is developing a successor system to replace G-TSCMIS after migrating the data.

DSCA requires an innovative prototype capable of meeting the needs of the SC enterprise and developing an enterprise-wide technology to facilitate and integrate planning, budgeting, collaboration, program design, assessment, monitoring, evaluation, and reporting in support of all U.S. security cooperation activities and. The successor system (Socium) prototype must perform each function in a manner that meets the mandate of the FY17 NDAA reforms including; Planning, Assessment, Monitoring, and Evaluation (AM&E) and Defense Institution Building.

For this effort, DSCA developed a new, innovative acquisition strategy for the successor system in consultation with the Defense Innovation Board and other IT acquisition experts. The strategy will increase competition, maximizing savings, and leverage flexible development approaches. DSCA is utilizing a phased approach to develop the successor system. The first phase, which is scheduled to be completed by September 2019, will gather industry driven solutions to develop a system that provides a modernized, versatile platform. DSCA, through Washington Headquarter Services, will then issue a competitive prototyping award for the second phase and is tentatively planned for completion in January 2020. The final phase will issue a production release that deploys the new solution to the SC enterprise in FY 2021.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Security Cooperation Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management Information Systems (G-TSCMIS)</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	3.992	7.398	0.000	0.000	0.000
Current President's Budget	3.992	7.398	8.317	0.000	8.317
Total Adjustments	0.000	0.000	8.317	0.000	8.317
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	8.317	0.000	8.317

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The FY 2022 funding request was reduced by \$0.1 million to account for the availability of prior year execution balances. The funds reduced in FY 2022 was re-phased and applied to FY 2023 and FY 2024 causing efforts to be pushed to the next fiscal year. FY 2023 funds will be used to continue to improve Socium through capability and functional enhancements to increase authority-specific workflows, and improve planning and execution of security cooperation activities. Socium will save countless man hours for thousands of users across the entire security cooperation enterprise (Services, COCOMs, and Defense Agencies) by reducing duplicative data entry and reporting requirement burdens. Socium will manage comprehensive and accessible information that enhances oversight and data-driven decision-making capability, and assessment, monitoring and evaluation.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>				<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000205: <i>Global Theater Security Cooperation Management information Systems (G- TSCMIS)</i>	39.475	3.992	7.398	8.317	-	8.317	8.463	8.589	8.762	8.937	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

In February 2019, the Deputy Secretary of Defense designated the Defense Security Cooperation Agency (DSCA) as lead for the Global-Theater Security Cooperation Management Information System (G-TSCMIS) program. At that time, the G-TSCMIS program consisted of the G-TSCMIS application, which was responsible for creating, managing, and assessing DoD Security Cooperation (SC) activities. In consultation with the SC enterprise community, DSCA determined that the G-TSCMIS application was no longer able to fulfil its mission and could not meet the needs of the SC enterprise community. In FY 2020, DSCA, in consultation with the Defense Innovation Board, utilized a new, innovative acquisition strategy to develop two prototypes for the successor application. The strategy gathered industry driven solutions that increased competition, maximized savings, and leveraged flexible development approaches that developed an application with a modernized, versatile platform. In coordination with the SC enterprise, DSCA selected one prototype as the replacement to the G-TSCMIS application.

DSCA deployed the prototype as the Socium application, the fifth release of the G-TSCMIS program, in September 2020 and met the aggressive timeline required by the community. Socium is the DoD enterprise-wide technology to facilitate and integrate planning, budgeting, collaboration, design, management, assessment, monitoring, evaluation, and reporting in support of all U.S. security cooperation activities.

In FY 2021, DSCA will continue to add new capabilities and functional enhancements to Socium that includes new SC programs and processes, an expanded data model, refined AM&E capabilities, and two-way interfacing with other Authoritative Data Sources (ADSs). Some examples of new capabilities and enhancements for Socium in FY 2021 include deploying a SIPR Socium application and cross domain solution; building tailored workflows for all remaining permanent Title 10 security cooperation authorities; interfacing with the Overseas Humanitarian Assistance Shared Information System (OHASIS), Enterprise Freight Tracking System (EFTS), Security Cooperation Management Suite (SCMS), Command and Control Information Exchange (C2IE), Advance Analytics (ADVANA), and Reachback Engineer Data Integration (REDi); and improving the assessment, monitoring, and evaluation (AM&E) capabilities. Finally, the legacy G-TSCMIS application will be retired no later than the end of the first quarter of FY 2021. The G-TSCMIS application retirement plan includes transfer and integrating historical data into Socium.

The new capabilities and functional enhancements are critical to saving countless man hours for thousands of users (strategic, operational, and tactical) across the entire SC enterprise (Services, COCOMs, and Defense Agencies) by reducing data entry in disparate systems/applications, automating paper-based business processes, and reporting requirement burdens. Furthermore, they continue to enhance Socium's capability to maintain comprehensive, accessible information that enhances oversight and data-driven decision-making capability for strategic users and to allow leaders to align SC resources to the National Defense Strategy, Theater Campaign Plans, and Integrated Country Strategies.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> Global Theater Security Cooperation Management Information System (G-TSCMIS)</p> <p><b>FY 2022 Plans:</b> In FY 2022, DSCA will continue to add new capabilities and functional enhancements to Socium that includes new SC programs and processes, an expanded data model, refined AM&amp;E capabilities, and interfacing with other authoritative data sources (ADSs) and systems. Additionally, Socium will have the capability to build monitoring plans and enhanced document library to enable cross organization information sharing.</p> <p><b>FY 2023 Plans:</b> In FY 2023, DSCA will continue to add new capabilities and functional enhancements to Socium that includes new expanding workflows and data integration for SC activities under Title 14, 22, and 50 to ensure complimentary SC activity planning and execution across the whole of the U.S. government; continuing to interface with the other ADSs; and looking to retire other legacy systems that Socium can replace.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> In addition to inflation, the increase in FY 2023 is due to re-phased funding taken from FY 2022 and applied to FY 2023 and FY 2024 causing efforts to be pushed to the next fiscal year. FY 2023 funds will be used to continue to improve Socium through capability and functional enhancements to increase authority-specific workflows, and improve planning and execution of security cooperation activities. Socium will save countless man hours for thousands of users across the entire security cooperation enterprise (Services, COCOMs, and Defense Agencies) by reducing duplicative data entry and reporting requirement burdens. Socium will manage comprehensive and accessible information that enhances oversight and data-driven decision-making capability, and assessment, monitoring and evaluation.</p>	3.992	7.398	8.317
<b>Accomplishments/Planned Programs Subtotals</b>	3.992	7.398	8.317

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
DSCA conducted extensive market research. DSCA concluded that there is not a single Commercial Off-The-Shelf (COTS) or Government Off-The-Shelf (GOTS) solution that meets all of the SC enterprise needs. The two main challenges are: stitching together multiple software solutions into one application, and sophisticated customization. DSCA developed an innovative acquisition strategy for the successor system in consultation with the Defense Innovation Board and other IT acquisition experts and determined that utilizing an Other Transaction Agreement (OTA) through a Consortium is the best option. The strategy increased competition, maximized savings, and leveraged flexible development approaches. DSCA utilized a phased approach to develop the successor system. The first phase completed by



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Security Cooperation Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>	000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

September 2019, completes G-TSCMIS Release 3 as the final capability enhancements to G-TSCMIS. Phase II gathered industry driven solutions to develop a system that provides a modernized, versatile platform. Towards this goal, DSCA, through Washington Headquarter Services, issued a competitive prototyping award. DSCA will issue a production release that deploys the solution to the entire SC enterprise in FY 2022. The third phase will continue to add new capabilities and functional enhancements to the successor system that can include new SC programs and processes, an expanded data model, refined AM&E capabilities, and two-way interfacing with other systems.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Security Cooperation Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Engineering	MIPR	SSC LANT : Charleston, SC	21.994	0.000		-		-		-		-	0.000	21.994	-
Systems Development	C/FFP	Production Development Base Year : Arlington, VA	7.074	-		-		-		-		-	0.000	7.074	-
Systems Development	MIPR	AGC : Alexandria, VA	0.550	0.454	May 2021	-		0.853	Feb 2023	-		0.853	Continuing	Continuing	-
Systems Development	C/FFP	Production Development Option Year 1 : Arlington, VA	6.100	3.538	Feb 2021	-		-		-		-	0.000	9.638	-
Data Architecture	MIPR	Various : Arlington, VA	0.355	-		-		-		-		-	0.000	0.355	-
Business Process Mapping	MIPR	Various : Arlington, VA	1.066	-		-		-		-		-	0.000	1.066	-
Systems Development	C/FFP	Production Development Option Year 2 : Arlington, VA	-	-		7.398	Feb 2022	-		-		-	0.000	7.398	-
Systems Development	C/FFP	Production Development Option Year 3 : Arlington, VA	-	-		-		7.464	Feb 2023	-		7.464	0.000	7.464	-
<b>Subtotal</b>			37.139	3.992		7.398		8.317		-		8.317	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	MIPR	SSC LANT : Charleston, SC	2.146	0.000		0.000		0.000		0.000		0.000	0.000	2.146	-
<b>Subtotal</b>			2.146	0.000		0.000		0.000		0.000		0.000	0.000	2.146	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Security Cooperation Agency</b>												<b>Date: April 2022</b>			
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>					<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>						
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	MIPR	SSC LANT : Charleston, SC	0.190	0.000		-		-		-		-	0.000	0.190	-
<b>Subtotal</b>			0.190	0.000		-		-		-		-	0.000	0.190	N/A
			Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract				
<b>Project Cost Totals</b>			39.475	3.992	7.398	8.317	0.000	8.317	Continuing	Continuing	N/A				

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Acquisition Milestones</b>	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase I: G-TSCMIS Release 3 Deployment																												
Phase II: G-TSCMIS Successor System Research																												
Phase II: G-TSCMIS Successor Prototype Systems																												
Phase II: G-TSCMIS Successor Production System																												
Phase III: G-TSCMIS Successor System Operational Enhancements																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Acquisition Milestones</b>	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase I: G-TSCMIS Release 3 Deployment																												
Phase II: G-TSCMIS Successor System Research																												
Phase II: G-TSCMIS Successor Prototype Systems																												
Phase II: G-TSCMIS Successor Production System																												
Phase III: G-TSCMIS Successor System Operational Enhancements																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Security Cooperation Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Co operation Management Information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 000205 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Acquisition Milestones</b>				
Phase I: G-TSCMIS Release 3 Deployment	1	2019	4	2019
Phase II: G-TSCMIS Successor System Research	3	2019	4	2019
Phase II: G-TSCMIS Successor Prototype Systems	1	2020	2	2020
Phase II: G-TSCMIS Successor Production System	2	2020	4	2021
Phase III: G-TSCMIS Successor System Operational Enhancements	1	2021	4	2027

UNCLASSIFIED

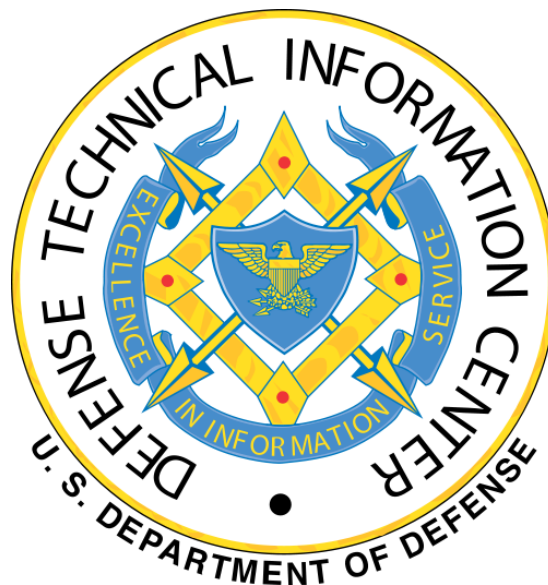
THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Technical Information Center**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Defense Technical Information Center • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 497**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 509**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 511**  
**Exhibit R-2s..... Volume 5 - 513**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b> -----						
Management Support	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				
<b>Summary Recap of FYDP Programs</b> -----						
Research and Development	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702
Summary Recap of FYDP Programs -----			
Research and Development		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
-----						
Management Support	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				
<b>Summary Recap of FYDP Programs</b>						
-----						
Research and Development	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702
Summary Recap of FYDP Programs -----			
Research and Development		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Defense Technical Information Center	61,647	65,002				
Total Research, Development, Test & Evaluation	61,647	65,002				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Defense Technical Information Center		65,002	66,702
Total Research, Development, Test & Evaluation		65,002	66,702

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
168	0605801KA	Defense Technical Information Center (DTIC)	06	58,810	61,453					U
172	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06	2,837	3,549					U
		Management Support		61,647	65,002					
Total Research, Development, Test & Eval, DW				61,647	65,002					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
--	-----	----	---	-----	-----	-----	-
168	0605801KA	Defense Technical Information Center (DTIC)	06		61,453	63,184	U
172	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06		3,549	3,518	U
		Management Support			65,002	66,702	
Total Research, Development, Test & Eval, DW					65,002	66,702	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

UNCLASSIFIED

Defense Technical Information Center  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
168	0605801KA	Defense Technical Information Center (DTIC)	06	58,810	61,453					U
172	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06	2,837	3,549					U
		Management Support		61,647	65,002					
Total Defense Technical Information Center				61,647	65,002					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Technical Information Center  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
168	0605801KA	Defense Technical Information Center (DTIC)	06		61,453	63,184	U
172	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06		3,549	3,518	U
		Management Support			65,002	66,702	
Total Defense Technical Information Center					65,002	66,702	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:46:13

**UNCLASSIFIED**

Defense Technical Information Center • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
168	06	0605801KA	Defense Technical Information Center.....	Volume 5 - 513
172	06	0605998KA	Management HQ - Defense Technical Information Center (DTIC).....	Volume 5 - 527

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Defense Technical Information Center • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Defense Technical Information Center	0605801KA	168	06.....	Volume 5 - 513
Management HQ - Defense Technical Information Center (DTIC)	0605998KA	172	06.....	Volume 5 - 527

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Technical Information Center **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	380.143	58.810	61.453	63.184	-	63.184	64.845	65.383	65.731	66.162	Continuing	Continuing
001: <i>Defense Technical Information Center</i>	340.740	53.794	56.437	58.168	-	58.168	59.829	60.367	60.715	61.146	Continuing	Continuing
002: <i>Information Analysis Centers</i>	39.403	5.016	5.016	5.016	-	5.016	5.016	5.016	5.016	5.016	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Technical Information Center’s (DTIC) unique mission is to accelerate delivery of capabilities to our warfighters to ensure superiority on today’s battlefields and for the conflicts of tomorrow; provide a robust Science and Technology (S&T) knowledge base to enable research and engineering and connect communities. The DoD’s investment in S&T is the basis of future warfighter capability. By capturing the results of today’s research and providing outlets for wide dissemination, DTIC increases the return on S&T investment. As the premier knowledge resource for defense research, DTIC works across the Services and agencies to provide insight and awareness to all users:

- Visibility across Service and agency research activity for all users.
- Avoids the cost of redundant and potentially siloed Service systems.
- Drives research-focused, cross-component collaboration.
- Comprehensive knowledge base enhances the promise of artificial intelligence (AI) and machine learning (ML).

In concert with congressional interest, DTIC is strongly committed to modernizing systems, transforming distribution, enhancing the collection, strengthening analytical capabilities on S&T content, and supporting the management of research data sets. Ongoing modernization activities embrace data-driven concepts and leverage commercial innovations.

- Recognize opportunities provided by on-demand compute resources in the cloud to perform preprocessing and analysis of DoD research.
- Redefine DTIC architecture as we move to the cloud to increase capacity and access to advanced technologies.
- Buy, not develop, capability to speed tool delivery.

Additional details regarding DTIC modernization efforts are outlined in a subsequent section.

DTIC delivers a knowledge base of more than 4.7 Million information records to increase collaboration and cooperation within the DoD, with our industry partners, academia, inter-agency working groups, and citizen scientists. For over 75 years, DTIC has been providing research results, lessons learned, where work is being performed and progress made. DTIC, a DoD Field Activity under the authority, direction and control of the Under Secretary of Defense for Research and Engineering (USD(R&E)), is the DoD’s executive agent and sole central source for DoD-funded scientific, technical, engineering, and industry-related information. DTIC develops and delivers information and services to share knowledge and enhance decision making.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Technical Information Center Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
--	--

This Program Element (PE) provides for DTIC mission operations, which are focused on three core activities: Content Management, User Services, and Information Analysis Centers (IACs):

- a) Content Management includes the S&T repository of 4.7 Million DoD and Service records (reports and research data). DTIC acquires and prepares 80 Thousand records a year, aligned to priority areas, COIs, and technology areas to aid discovery. DTIC captures the results of DoD's multi-billion annual investment as a foundation for future activity, enabling the community to build upon past work to avoid costly and time-delaying rework. Ongoing efforts focus on consolidating input systems and migrating users to electronic submission to improve quality of material and realign resources from manual processing to end user tools.
- b) User Services offers search interfaces on NIPRNet (CUI), SIPRNet (classified), and Internet (public), providing for situational awareness of on-going research activity across the Department. Ongoing efforts focus on enhancing analysis tools to increase understanding of the S&T landscape; incorporating leading commercial analytic and search technologies to improve search results; and providing users key information to provide a complete picture of activity and progress. By employing tools now accessible in the cloud, DTIC looks to move the burden and time consumption for initial analysis from the user by pre-processing and presenting information products that inform and answer questions using data drawn from multiple collections. Improve user self-service functions to refocus resources on information analysis and interrogation capabilities.
- c) DTIC's Information Analysis Centers (IACs) drive innovation and technological development by anticipating and responding to the information needs of the defense and broader community. The IAC Program Management Office (IAC PMO) provides core funding, management, and oversight of three IACs, which are chartered by DoD to collect, research, analyze, and disseminate S&T information in specialized fields to DoD researchers and acquisition professionals. In addition, the IAC PMO manages large, \$28 billion multiple award contract to make possible new research that builds on prior investments and incorporates the innovations of government, industry, and academia. For the last several years, competition inherent in the IAC model has produced savings of 10-16% under projected costs, while still delivering vetted technical expertise to address DoD's complex challenges. Providing DoD labs and program managers' access to thousands of industry subject matter experts, the IACs performed over \$2 Billion of customer-funded research and analysis in FY 2021. The results of the work are a rich source of new material for DTIC's technical repositories and are available to users across the Department. The IAC approach was identified as a "best practice" by the Director of Defense Pricing and Contracting and the then- Acting Assistant Secretary of Defense for Research and Engineering in a July 2018 memo wherein they recommended use of the IAC contracts across DoD as "vehicles of first choice."

**DTIC MODERNIZATION**

DTIC's modernization efforts will establish DTIC as the go-to source of S&T knowledge and analysis – increasing the nation's return on S&T investment and accelerating the maturity of capability to the warfighter. DTIC's modernization focus areas include the following:

- **Readiness and Availability:** The DTIC approach will take full advantage of cloud integration. The high availability of cloud will enable users to depend on DTIC for information, analysis, and collaboration. The cloud offers a flexible hosting environment and ensures DTIC will have the capability to support the emerging needs of the S&T community including access to compute and storage for artificial intelligence (AI) and machine learning (ML).
- **Submissions:** A broad community of researchers (civilians, military, industry, academia) and technology consumers (PEOs, CCMDs) look to DTIC for cross-organization access to information only available in DTIC's collection. DTIC is working to integrate Service pipelines more fully with DTIC submission system, complete

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Defense Technical Information Center Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / Defense Technical Information Center
--	---

batch upload, establish application interfaces, and system-to-system submissions. Enhancing the submission system, simplifying submission, and automation of the process will yield a more complete picture (quality and quantity) of the state of knowledge and activity feeding DTIC search, providing improved situational awareness, increased understanding, and better decisions.

- Search and Analysis: Adopting AI/ML-ready commercial search engine gives DTIC users access to a leading commercial engine and user interface features that will be continuously enhanced. When implemented, analysis and visualizations will be a key method of conveying information. Return-on-Investment for S&T will increase as users will spend less time looking for information and more time benefiting from information at DTIC (less rework, optimized efforts, enhanced analysis, and building community), improving coordination of research efforts. Analysis and data mining of DoD collections will uncover new relationships, trends, and opportunities.

- Data Sets: This represents a long-term endeavor, greatly aided by cooperative engagement with the services and coordination within R&E. DTIC is coordinating its approach with the Department's Chief Data Officer (CDO) and is working with the DoD S&T community to populate research data sets directory. DTIC is an active member of the Research Data Working Group; the Services are engaged in governance and strategy for metadata sharing, application programming interfaces (APIs), and code/tools to use. Increased awareness of existing DoD S&T data sets across the community, revalidating results, and confidence sharing data sets and associated code/tools cross Service/agency will provide a baseline to validate utility of data set preservation.

OTHER MISSION PRIORITIES

Other priority and complementary DTIC mission activities are described below:

- Bring communities together supporting collaboration between researchers, warfighters, industry, academia, Federal agencies, and allies.
- Ensure information is protected: easily available to trusted users and blocked from unauthorized access.
- Develop and manage DoD's Science Technology Information Policy (STIP).
- Maintain compliance with existing public law, regulations, and guidelines.
- Continue progress on Congressionally mandated programs, as directed within the FY 2019 National Defense Authorization Act (NDAA), to include:

-- Innovators Information Repository (IIR): Increase awareness of Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) and other small business innovative technology capabilities and improve transition to systems of record. Add resources to the IIR; provide Program Executive Offices (PEOs) and Program Managers (PMs) increased visibility on innovation.

-- Global Research Watch (GRW) Program: In partnership with the Strategic Intelligence & Analysis Cell (SIAC), DTIC provides infrastructure for SIAC's decision-quality analysis of open-source information on international research programs and capabilities. Building on prior results, DTIC will tailor the hosting environment based on SIAC feedback and evaluation of accuracy and utility of analysis. SIAC led the effort to establish analytical and global horizon scanning tools necessary to support GRW with DTIC hosting applications and data.

-- Data Sets and Data Repositories: Data set reuse reduces time to delivery, cost, and environmental impact. DTIC is actively working to position data sets as a resource for accelerating research. DTIC's PubDefense provides links to DoD funded data sets produced in extramural research linked to published journal articles.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Technical Information Center	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
--	--

DTIC is leading the DDR&E(R&T) chartered cross-Service Research Data Working Group to coordinate activities. Management of research data sets opens the opportunity to gain more value from investments in data sets and reduction of time to delivery of new capability.

In support of these mission operations, DTIC leases space and critical shared services (e.g., human resources (HR); financial management and accounting; contracting; cloud hosting; common-use IT services and security; communications; and civilian payroll services) from expert and efficient DoD and commercial service-providers.

**SUMMARY**

- DTIC actively supports the Secretary’s priorities – defending the Nation, taking care of our people, and succeeding through teamwork.
- DTIC plans reflect a strong commitment to address congressional, DoD, and R&E priorities.
- Building on progress, DTIC’s focus remains on growing the knowledge base, facilitating sharing, maintaining open repositories, and developing data analytics to advance discovery and understanding.
- To provide decision makers and Warfighters insight into the S&T research terrain, DTIC is adopting transformational technologies to enhance collection, distribution, analysis, and research data sets.
- DTIC data-related efforts and activities are in alignment with the Department’s Chief Data Officer (CDO) strategy and research information standards.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	58.810	61.453	0.000	-	0.000
Current President's Budget	58.810	61.453	63.184	-	63.184
Total Adjustments	0.000	0.000	63.184	-	63.184
• Congressional General Reductions	0.000	-			
• Congressional Directed Reductions	0.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	63.184	-	63.184

**Change Summary Explanation**

Program Change: Program Change: FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Technical Information Center **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	PE 0605801KA / <i>Defense Technical Information Center</i>

FY 2023 Service Requirements Review Board (SRRB) Reduction: The FY 2023 Base program includes a \$0.740 Million reduction in accordance with the Department's service contract downsizing effort.

The FY 2023 Base program also includes a \$0.028 Million reduction attributable to Fourth Estate Information Technology (4E IT) Reform savings.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Inform</i> <i>ation Center</i>				<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
001: <i>Defense Technical Information Center</i>	340.740	53.794	56.437	58.168	-	58.168	59.829	60.367	60.715	61.146	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DTIC is responsible for developing, coordinating, and enabling a strong scientific and technical information (STINFO) program for the Office of the Under Secretary of Defense for Research and Engineering (OUSDR&E) and the DOD scientific and technical (S&T) enterprise. In this role, DTIC sets policy for scientific and technical information (STI) exchanges for the research and engineering (R&E) community. DTIC’s challenge is to maximize the availability and use of technical information and products resulting from Defense-funded technical activities while safeguarding national security, export control, and intellectual property rights. The Department conducts science and technology research via the following means: 60+ labs, Federally Funded Research and Development Centers (FFRDCs), DTIC’s Information Analysis Centers (IACs), and other contracts and grants. DTIC’s search and collaboration applications foster innovation, competition, and identification of solutions in an access-controlled environment.

Within this budget project, DTIC’s organizational efforts are focused on the continued modernization of Content Management and User Services core mission areas, along with the following critical activities:

- Search: Apply artificial intelligence (AI)/machine learning (ML) technologies to produce information products and develop tailored search mechanisms that enable users to quickly discover useful information and ensure DTIC presents the most relevant information. Semantic (machine learning) mapping of information facilitates comprehensive and precise data retrieval, built on DTIC’s custom thesaurus (for use by DOD and allied partners).
- Collaboration: Continue efforts to facilitate communication and coordination between S&T and the warfighting community. Consolidate collaboration tools focusing on DoDTechipedia wiki, open to all DoD users.
- Access Identity Management: Develop custom information resources based on analysis of user activity, evaluate products and services to ensure performance goals are met. Model activity to identify anomalies that might indicate cyber issues.
- Metrics: Enhance metrics capabilities to establish baseline performance; provide indicators to guide tool development and improve performance; and measure future success.
- Data Fusion/Analysis: DTIC applications permit the gathering of information from multiple data sources that fuse the disparate datasets into a single view of the life cycle of research and present an overarching picture of research investment--enabling decision-makers to employ resources to highest priority efforts and coordinate efforts across Services. DTIC is developing and staffing an Analysis Cell to help understand data mapping and identify trends. Gap analysis will identify missing data, and facilitate the capture missing artifacts to present a more complete picture.
- Preservation: DTIC holds the institutional memory of the Department’s S&T activities, preserving a vital collection going back 75 years. DTIC acquires and prepares 80K records a year, aligned to priority areas, Communities of Interest (Cols), and technology areas to aid timely discovery.
- Submission: Enhancing the submission system, simplifying submission, and automation of the process will yield a more complete picture (quality and quantity) of the state of knowledge and activity feeding DTIC search, providing improved situational awareness, increased understanding, and better decision-making.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>
<p>- Cyber Security: DTIC continues to leverage state-of-the art technologies, processes and practices designed to protect DTIC networks, computers, programs and data from attack, damage, or unauthorized access.</p> <p>- FY 2019 NDAA Section 202 and Section 905 mission activities:</p> <p>-- Innovators Information Repository (IIR). DTIC launched IIR in 2019 in coordination with the Small Business Growth Alliance and the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program office. DTIC is working to link SBIR awards to broader SBIR information at DTIC through integration with Horizons, an S&amp;T activity reference tool. DTIC is partnering with the SBIR/STTR Office to identify impediments to tech transfer and works to increase the flow of information available to the acquisition community.</p> <p>-- Global Research Watch (GRW) program. DTIC and the Strategic Intelligence and Analysis Cell (SIAC) are collaborating with the Basic Research Office (BRO) to leverage Dimensions.ai, a commercial tool, and continue to explore a single portal to address 10 U.S. Code § 2365. In addition, DTIC is building a data analytics cell that is engaging with the Services to explore complementary capabilities to integrate and/or federate with DTIC tools.</p> <p>-- Data Sets. DTIC continues to execute dataset management. With respect to datasets and data repositories created during research, DTIC is building out a searchable dataset directory to direct users to organizations holding relevant datasets. DTIC is linking datasets to completed and in-progress research, and is actively engaging with the Department's Chief Data Officer (CDO) to make DoD's research and engineering data available and reusable.</p> <p><b>SUPPORTING USER COMMUNITIES</b></p> <p>DTIC supports user communities on the network where they work, i.e., NIPRNet, SIPRNet, and the public internet, and uniquely provides access controls within unclassified and classified material to protect intellectual property in our search, distribution, and collaboration tools.</p> <p>- DoD's RDT&amp;E Enterprise: As a Field Activity to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&amp;E)), DTIC's priority is the RDT&amp;E enterprise, hosting information assets and tools on the NIPRNet, the primary network for the community.</p> <p>- Warfighter: Improving coordination between the acquisition enterprise and warfighter communities, DTIC hosts information assets and tools on the SIPRNet. DTIC is actively working to expand the availability of science and technology (S&amp;T) information, to include Independent Research and Development (IR&amp;D), on the SIPRNet. DTIC continues its efforts to establish parity of information and capabilities on applications hosted on both NIPRNet and SIPRNet platforms.</p> <p>- Industry, Academia, and Citizen Science via Public Internet: Engaging industry outside the NIPRNet firewall to support acquisition improvement initiatives and encourage the introduction of innovation, DTIC hosts unclassified public information and tools accessible to all users on the Internet. DTIC provides public access to DoD-funded journal articles and research data and increases outreach to industry through DTIC's Defense Innovation Marketplace.</p>		

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Inform</i> <i>ation Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>
--	---	---

- Submitters Community: The DTIC Submitters Community cuts across all networks (NIPRNet, SIPRNet, and public). DTIC is supporting this vital community through the consolidation and streamlining of user submission systems and tools. Improving input systems offers submitters a user-friendly means of making inputs to the DTIC collection.

**SUMMARY**

DTIC is focused on the future, building new capabilities to mine the rich material produced from DoDs research community, and provide actionable products requiring minimal user time and expertise. DTIC works to ensure the results of DoD's investments in S&T research are available to inform the next generation of scientists, researchers, and engineers, empowering them to build on past accomplishments/what works and to avoid proven dead ends. In doing so the pace of innovation accelerates, the quality of science improves, and capability delivery to the warfighter is more rapid. DTIC provides the decision makers and technology consumers in the acquisition and warfighting communities' insight on S&T activity, what is being worked on, how many projects, where work is being performed, maturity of projects, and who to contact. DTIC is uniquely positioned to support and to ensure the value of DoD's R&D portfolio is fully realized.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Defense Technical Information Center</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Explore delivery of a single collaboration and knowledge management platform for DTIC customers.</li> <li>-- Facilitate communication and coordination between S&amp;T and the warfighting community through consolidated platform reducing barriers to collaboration and data sharing.</li> <li>- Enhance DTIC's Access and Identity Management (AIM) and implement on SIPR products and services once products and services are migrated to the SIPR commercial cloud.</li> <li>- Continue the streamlining of common submission system to support self-service submission of research progress and final reports from the DoD and partners.</li> <li>- Explore self-service maintenance feature for trusted DoD users to update content submitted to DTIC common submission system. This will reduce latency in updates to the community.</li> <li>- Collect and preserve material to ensure the work performed in the DoD labs and across the department isn't lost and remains available to the community to further research.</li> <li>- Automate standard data fields, saving user time with collection submissions, and making them available during search. This will result in a better search experience for DTIC customers.</li> <li>-- Perform pilot study to expand usage of unique identifiers or submitter profiles to retrieve author information to auto-populate forms, saving user time with collection submissions. This will result in improved data quality and a better search experience for DTIC customers.</li> <li>- Provide a repository of metadata for DoD-generated data sets and tool to create data management plans.</li> <li>- Incorporate Digital Object Identifiers (DOIs) for public documents.</li> </ul>	53.794	56.437	58.168

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue R&amp;E engagement and outreach by meeting with DoD labs, conducting site visits to R&amp;E organizations, attending virtual conferences, and attending conferences to further extend the use of DTIC resources and enabling the R&amp;E community with the many products and services DTIC offers.</li> <li>- Build in high availability and performance within a Cloud environment.</li> <li>- Standardize and optimize Cloud-based infrastructure environments to enhance security posture, improve metrics, meet DoD data center reduction goals, provide continuous monitoring, capabilities, quicker recovery from failure, and take full potential of cost savings.</li> <li>-- Focus on what Amazon is doing with artificial intelligence (AI) with Search Engines.</li> <li>- Continue to maintain and expand the Innovators Information Repository (IIR).</li> <li>-- Integrate IIR capabilities into the R&amp;E Gateway Search.</li> <li>-- Explore, in partnership with Services and Combatant Commands (CCMDs), the development of a capability for companies, academia, and startups to submit portfolios of innovation activities and company information.</li> <li>-- Complete the revision of DoD 3200.14 requiring the use of the IIR to determine whether technology exists or is in development before Department organizations initiate a Request for Information (RFI) or Request for Proposal (RFP).</li> <li>-- Continue outreach with Program Executive Offices (PEOs) to expand the use of IIR.</li> <li>- Collect and preserve material to ensure the work performed in the DoD labs and across the department isn't lost and remains available to the community to further research.</li> <li>-- Collaborate with DoD Labs on DoD Data set Directory, to promote completeness of records within the directory and encourage its use to provide consolidated location for discovering datasets associated with DoD-funded research to fulfill requirements in the 2019 National Defense Authorization Act (NDAA-19).</li> <li>- Continue to publish the Journal of DoD Research and Engineering (JDRE) four times each year, including special editions.</li> </ul> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Employ cutting edge technology, computational power offered in the cloud, machine learning (ML), and artificial intelligence (AI) to provide enhanced insight into the science and technology (S&amp;T) enterprise with support for decision makers and researchers.</li> <li>-- Refine search queries to locate the most relevant documents rather than thousands of near matches.</li> <li>-- Provide analysis of past, current, and planned research activities.</li> <li>-- Map relationships to show connections between researchers, organizations, scientific specialties, and published works.</li> <li>-- Present information in visualizations making trends and gaps easy to recognize.</li> <li>-- Allow users to export results in formats that enable further analysis in their own tools.</li> <li>-- Create associations between researchers, institutions, and technology, permitting research efforts further enhancing collaboration and information sharing on emerging technology.</li> <li>- Deliver a single collaboration and knowledge management platform for DTIC customers.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Inform</i> <i>ation Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>-- Consolidate collaboration tools to a single application open to all DTIC customers while still protecting data at varying customer credentialed levels.</li> <li>-- Facilitate communication and coordination between S&amp;T and the warfighting community through consolidated platform reducing barriers to collaboration and data sharing.</li> <li>-- Investigate processes to improve collaboration for users including guidelines and best practices.</li> <li>- Enhance DTIC's Access and Identity Management (AIM) and implement on SIPR products and services once products and services are migrated to the SIPR commercial cloud.</li> <li>-- Initiate a user profile model to better understand user needs.</li> <li>-- Connect users with exceptional experiences that are seamless, personalized, and privacy-minded.</li> <li>-- Expand the digital ecosystem to support the remote workforce across digital channels.</li> <li>- Increase DTIC's mobile presence to ensure our products are accessible across devices.</li> <li>- Unify DTIC's products and services interface to increase customer satisfaction.</li> <li>-- Update the DTIC Web Style Guide to expand Web Accessibility compliance and U.S. Web Design standards.</li> <li>- Continue streamline of common submission system to support self-service submission of research progress and final reports from the DoD and partners.</li> <li>- Integrate PubDefense for public access materials into single submission tool.</li> <li>- Integrate International Agreements submission into single submission tool.</li> <li>- Implement self-service maintenance feature for trusted DoD users to update content submitted to DTIC common submission system.</li> <li>- Collect and preserve material to ensure the work performed in the DoD labs and across the department isn't lost and remains available to the community to further research.</li> <li>- Increase collection of reports by 30-35 Thousand, increasing amount of content in the DTIC collection for use by DoD and partners.</li> <li>- Automate standard data fields, saving user time with collection submissions and making them available during search. This will result in a better search experience for DTIC customers.</li> <li>-- Implement unique identifiers or submitter profiles to retrieve author information to auto-populate forms, saving user time with submissions and improve data quality for a better search experience.</li> <li>- Continue R&amp;E engagement and outreach by meeting with DoD labs, conducting site visits to R&amp;E organizations, attending virtual conferences, and attending conferences to further extend the use of DTIC resources and enabling the R&amp;E community with the many products and services DTIC offers.</li> <li>-- Create new Social Media campaigns such as LinkedIn and MilSuite.</li> <li>-- Create Tier 0 (self-service) training for DTIC products and services.</li> <li>- Increase performance and high availability while expanding access to the cloud environment by means of mobile devices and other endpoints.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Inform ation Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Develop, architect, and engineer cloud solutions in a new environment provided and managed by Air Force Cloud One, which is a DOD partner. The new cloud-native software as a service (SaaS)/platform as a service (PaaS) zero-trust architecture will consolidate the many DTIC applications and allow DTIC to increase focus on security and providing users a better experience and greater value. Building a partnership with the USAF Cloud One Program Office will provide DTIC a cloud hosting environment and associated Migration as a Service options.</p> <p>-- Artificial intelligence (AI) and machine learning (ML) capabilities will be achieved with the new target architecture.</p> <p>- Collaborate with DoD Labs on DoD Data set Directory, to promote completeness of records within the directory and encourage its use to provide consolidated location for discovering datasets associated with DoD-funded research to fulfill requirements in the 2019 National Defense Authorization Act (NDAA-19).</p> <p>- Continue to publish the Journal of DoD Research and Engineering (JDRE) four times each year, including special editions.</p> <p>- Coordinate on data interoperability standardization to streamline S&amp;T collaboration across the DoD.</p> <p>-- Integrate with DoD JCS Data Advantage Platform to link existing research with Joint Experimentation and Testing Capability.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Compared to FY 2022 Base funding levels, the FY 2023 Base reflects an increase of \$1.731 Million. The funding increase reflected in this program is due to the FY 2023 civilian pay increase and economic assumptions regarding non-pay inflation rates.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	53.794	56.437	58.168

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>				<b>Project (Number/Name)</b> 002 / <i>Information Analysis Centers</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
002: <i>Information Analysis Centers</i>	39.403	5.016	5.016	5.016	-	5.016	5.016	5.016	5.016	5.016	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DoD Information Analysis Centers (IACs), established under DoD Instruction 3200.14, serve as a vital resource in providing timely, relevant information directly to users when and where it is needed. IACs serve as a bridge between the warfighter and the Acquisition/Research community, providing essential technical analysis and data support to a diverse customer base, to include the Combatant Commands (CCMDs), the Office of the Secretary of Defense, Defense Agencies, and the Military Services. IACs actively partner and collaborate with Defense Research and Engineering (R&E) focus groups and communities of interest in areas of specialized fields or specific technologies. The IACs create and maintain comprehensive knowledge analysis centers that include historical, technical, scientific, and other data and information collected worldwide. They are staffed with scientists, engineers, and information specialists to provide research and analysis to customers with diverse, complex, and challenging requirements. DoD IAC supports development and maintenance of comprehensive scientific knowledge bases, including historical, technical, scientific, and other data collected throughout the world and pertinent to DoD S&T thrust areas and modernization priorities, providing technology developers, warfighters, program managers, and other stakeholders access to tools, research, testing, evaluation, and training methods that can best contribute to fulfilling their mission.

DoD IAC currently partners with 761 unique organizations to identify and fill DoD's technological gaps by (1) creating the missing information through analysis and/or synthesis of available Scientific and Technical Information (STI), or (2) utilizing available STI to support applied and basic research programs, or (3) performing primary research jointly with other agencies where STI sharing is a requirement. The IAC leverages existing bodies of scientific knowledge in DTIC and allow innovative reuse [FY 2021] 2,195 Technical Inquiries and literature searches, 169 technical products and publications, SME training) to capitalize on available STI and maximize their budget by locating and analyzing data, information, and tools that were used in the development of similar solutions throughout the world. Both the research gaps and the potential partnership opportunities are further synthesized into information and produced as a useful input when engineering new requirements for an R&D project owner's need. Through its research support services and innovative contracting mechanisms, the IAC fosters a design of collaborative and responsible innovation to create building blocks of new research, creating a loop of continuous capability development while adding over 16,000 new research documents to the DTIC repository yearly. In FY 2021, DoD IAC onboarded 89 new DoD research projects to its existing base of 761 active organizations while creating and facilitating reuse of researching findings in the areas of microelectronics, hypersonic, directed energy, cyber, autonomy, artificial intelligence (AI) and machine learning (ML). IAC operations, in concert with National Defense Strategy objectives, directly support the warfighter, and play an ongoing and critical role in solving key CCMD operational issues such as cyber security, unmanned aerial vehicle visual/audible signature reduction, and improvements to the ballistic resistance of body armor. While the appropriated budget has not increased since 2004, DoD IAC has continued to advance its capabilities to meet the evolving needs of the DoD S&T community its capabilities and the demand for its services has grown exponentially, exceeding \$2.2B in joint R&D projects in FY 2021.

The IAC Program Management Office at DTIC performs contract acquisition, program management, and operational support for IAC contract operations and the technical information that is generated as a result of research and studies. In a time of shrinking budgets and increasing responsibility, IACs are a valuable resource

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 002 / <i>Information Analysis Centers</i>
--	--	---

for accessing scientific and technical information culled from efforts to solve new and historic challenges. Direct IAC customer support activities, such as Task Order processing, research operations support, Defense Finance and Accounting Service (DFAS) activities, contracting/acquisition related activities, etc., are funded in part through partnerships with the Defense R&E community and the annual collection of customer reimbursements for their share of direct costs, in accordance with the IAC Reimbursable Review Board (IRRB) recommendations. This represents the maximum cost-sharing with IAC customers allowable, per guidance from the OSD Office of General Counsel. Annual IAC efforts and accomplishments are dependent on the level of participation and collaboration by the R&E community at large.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Information Analysis Centers</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- In order to streamline IAC research services, complete transition of Basic Center of Operations (BCO) contracts from three to one contract performer, while still retaining three external facing operations: Cyber Security, Defense Systems, and Homeland Defense.</li> <li>- Of the 42,000+ documents collected by DTIC, the IACs will collect and provide a minimum of 10,000 new technical reports to DTIC for DoD use, increasing collection efforts over the previous year.</li> <li>- In order to support the exchange of information among members of the operational and technical communities, answer approximately 3,000 technical inquiries with timely and in-depth science and technology (S&amp;T) analysis; create and provide STI results via three IAC websites; capture scientific and technical information (STI) products from new/on-going analysis tasks.</li> <li>- Provide research services to the DoD by awarding, managing, and supporting at least 65 new Technical Area Tasks (TATs) ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction.</li> <li>- Ensure the IAC Multiple Award Contract (MAC) is meeting the needs of DoD researchers by assessing the third year of contract usage.</li> <li>- Support DoD research objectives by providing research services to new DoD customers, ensuring that new users exceed departing customers, and support research in new technologies as needed to align to USD(R&amp;E) priorities.</li> <li>- Expand support of DoD research and development by increasing the number of registered users of the IAC program by at least 1,200.</li> <li>- Assist in the progress of DoD S&amp;T research by expanding outreach to DoD laboratories and other Basic Research facilities and venues.</li> </ul> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- With a single contractor now performing basic research and analysis services across the three DoDIAC domains (Cyber Security, Defense Systems, and Homeland Defense), seek and realize efficiencies in providing faster services at reduced costs to a broader customer base.</li> <li>- Though new rules on eligible collections (restricting them to government-funded research) have reduced the number of reports that can be submitted to DTIC, meet or exceed the number of reports acquired in FY 2022.</li> <li>- Continue to provide rapid answers to Technical Inquiries for DoD government researchers, meeting or exceeding the number of Inquiries answered in FY 2022 and provide relevant scientific-technical products to the DTIC repository generated by the DoDIAC.</li> </ul>	5.016	5.016	5.016

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Technical Information Center		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Inform</i> <i>ation Center</i>	<b>Project (Number/Name)</b> 002 / <i>Information Analysis Centers</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Provide research services to the DoD research community via the IAC \$28 Billion multiple award contracts (IAC MAC), the IAC MAC, meeting or exceeding the amount of contract ceiling awarded in FY 2022; provide program strategy that aligns to, and evolves with, DoD overarching research goals.</li> <li>- Track awarded ceiling on the IAC Multiple Award Contract to ascertain the rate of usage and adjust acquisition strategy and plans for a follow-on contract as necessary; ensure the contract continues to meet DoD research needs and modify it as necessary.</li> <li>- Expand usage of the IAC program research and analysis services by increasing the number of new users of the service, ensuring that new technology areas of research are supported by the expertise of the DoDIAC industry partners across the DoDIAC's three domain areas (Cyber Security, Defense Systems, and Homeland Defense).</li> <li>- Continue to highlight the research and analysis services offered by the IACs to DoD researchers working in Basic Research areas, particularly those in DoD laboratories.</li> </ul> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p> <ul style="list-style-type: none"> <li>- There is no change in the FY 2023 Base, as compared to the FY 2022 Base.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.016	5.016	5.016

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Technical Information Center **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605998KA / <i>Management HQ - Defense Technical Information Center (DTIC)</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	15.738	2.837	3.549	3.518	-	3.518	3.620	3.695	3.752	3.831	Continuing	Continuing
001: <i>Management HQ - Defense Technical Information Center (DTIC)</i>	15.738	2.837	3.549	3.518	-	3.518	3.620	3.695	3.752	3.831	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This program element (PE) provides funding for the Management Headquarters (HQ) element of the Defense Technical Information Center (DTIC), a DoD Field Activity assigned to the Under Secretary of Defense for Research and Engineering (USD(R&E)). The PE supports personnel compensation for HQ-assigned civilians, along with related administrative support costs. DTIC's second RDT&E PE, established in FY 2017, is designed to track activities deemed as headquarters functions, with no operational efficiencies or enhancement to mission.

The PE supports the following HQ functions and mission essential activities critical to the success of DTIC's business operations, and mandated by law or regulation:

- Activity leadership, strategic planning, and Front Office support staff.
- The front office staff represents a small component of this PE. Most of the specialized functions and skill-sets described below are centralized activities within the PE, yet support the larger organization and its employees. These activities were consolidated as a means to improve efficiencies throughout DTIC, and are essential to the operation of DTIC's primary PE 0605801KA.
- Financial Management and Comptroller. Provides integrated resource management at the Agency level to obtain, control, and execute budget and manpower authorities to support the organization's mission requirements. Develops and prepares agency budget documents and exhibits for submission to both OSD and Congress.
- Accounting support to DTIC's mission operations; partners with the Defense Finance and Accounting Service to present accurate financial reporting and Fund Balance with Treasury.
- Financial Improvement and Audit Remediation (FIAR) activities and oversight in compliance with the Department's audit goals, objectives, and milestones.
- Human Resources (HR) Liaison Support. Provides the DTIC enterprise with payroll processing and "Hire to Retire" mission support; oversees and organizes employee training, professional development, and staff certification programs (e.g., Acquisition, Financial Management, and IT programs).
- Coordinates recruitment placement and classification action for the mission areas; liaison to the Defense Finance and Accounting Service for HR servicing and the Defense Logistics Agency (DLA) for Equal Employment Opportunity (EEO) program maintenance.
- Mandatory Records Management compliance activities and administration programs.
- Chief Information Officer (CIO). Collects, analyzes, and reports information necessary to effectively and efficiently manage enterprise IT resources; CIO functions are performed in compliance with DoD-CIO guidance, instructions and mandates.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Technical Information Center	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0605998KA / Management HQ - Defense Technical Information Center (DTIC)
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	2.837	3.549	0.000	-	0.000
Current President's Budget	2.837	3.549	3.518	-	3.518
Total Adjustments	0.000	0.000	3.518	-	3.518
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	3.518	-	3.518

**Change Summary Explanation**

Program Change: FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Management HQ - Defense Technical Information Center	2.837	3.549	3.518
<b>FY 2022 Plans:</b> - Execute the program, activities and functions as described above in Section A, Mission Description of PE 0605998KA.			
<b>FY 2023 Plans:</b> - Execute the program, activities and functions as described above in Section A, Mission Description of PE 0605998KA.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The net change between FY 2022 and the FY 2023 Base (a decrease of \$0.031 Million in FY 2023) reflects the following actions:  1) The Department's reduction (a change of one) in the number of civilian full-time equivalents (FTEs) aligned to the Management Headquarters element of DTIC.  2) A funding increase for the FY 2023 civilian pay increase.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.837	3.549	3.518

**D. Other Program Funding Summary (\$ in Millions)**

N/A

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Technical Information Center **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605998KA / <i>Management HQ - Defense Technical Information Center (DTIC)</i>
--	---

**D. Other Program Funding Summary (\$ in Millions)**

**Remarks**

**E. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Defense Threat Reduction Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Threat Reduction Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Introduction and Explanation of Contents.....Volume 5 - 535**  
**Comptroller Exhibit R-1..... Volume 5 - 537**  
**Program Element Table of Contents (by Budget Activity then Line Item Number).....Volume 5 - 553**  
**Program Element Table of Contents (Alphabetically by Program Element Title).....Volume 5 - 557**  
**Acronyms..... Volume 5 - 559**  
**Exhibit R-2s.....Volume 5 - 569**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**Exhibit R-1, RDT&E Programs  
Defense Threat Reduction Agency  
Fiscal Year (FY) 2023 Budget Estimates**

**Appropriation: RDT&E, Defense-Wide**

**Date: April 2022**

**OVERVIEW**

Our nation and the Department of Defense (DoD) face an increasingly complex security environment with growing and evolving threats. This environment includes diverse, dynamic, and growing Weapons of Mass Destruction (WMD) risks. Competitors and adversaries increasingly synchronize, integrate, and direct lethal operations with greater sophistication. Accordingly, the Defense Threat Reduction Agency (DTRA) is investing in the capabilities, expertise, and methodologies to meet its enduring mission to enable the DoD, the United States Government and International Partners to counter and deter WMD and Emerging Threats.

Part of DTRA's unique value stems from our dual roles as a Defense Agency and a Combat Support Agency. In our Defense Agency role, we respond to requirements from the services as well as from the DoD offices, including the undersecretaries of Defense for Acquisition and Sustainment, Policy and Research, and Engineering. These lines of authority give us strategic roles in the counter WMD (CWMD) fight through nuclear detection, nuclear survivability, CWMD technologies, CWMD test and evaluation, and Technical Reachback, among many key programs. As a Combat Support Agency, DTRA works alongside interagency and international partners in support of the warfighter to address the most consequential risks posed by existing and emerging WMD threats. It focuses on threats posed by near-peer competitors and rogue states while at the same time supporting the nation's nuclear deterrent. DTRA's budget request is aligned with overarching guidance from the Interim National Security Strategic Guidance, the current National Defense Strategy, and the Nuclear Posture Review. Finally, DTRA's budget signals a commitment to achieve capability outcomes and deliver effects across five core functions: (1) Enable strategic deterrence, (2) Support U.S. treaty implementation and verification, (3) Partner to reduce global WMD threats, (4) Identify vulnerabilities and mitigation strategies, and (5) Develop and deliver rapid capabilities. Furthermore, DTRA supports DoD's counter WMD (CWMD) priorities and requirements articulated in the Guidance for the Employment of the Force, the Joint Strategic Capabilities Plan, and Combatant Command campaign plans.

DTRA's RDT&E portfolio addresses complex WMD threat problems for the warfighter, including understanding the environment, threats and vulnerabilities; controlling, defeating, disabling, and disposing of threats; and enhancing DoD's ability to safeguard the force and manage consequences and outcomes. DTRA accomplishes this through three thrust areas:

- Understand the Environment, Threats, and Vulnerabilities: Provides the technical underpinnings to anticipate, detect, identify, locate, characterize, and assess WMD. DTRA's portfolio will prioritize capabilities that enable U.S. forces for more effective operations in environments where their traditional strengths in battlespace awareness are being actively countered.
- Control, Defeat, Disable, and Dispose of Threats: Provides the technical underpinnings to counter WMD proliferation and emerging threats. DTRA's portfolio will prioritize innovative capabilities that permit warfighters to defeat, interrupt, or otherwise render useless WMD and emerging threats well ahead of actual threat employment.
- Safeguard the Force and Manage Consequences and Outcomes: Support operating forces capability to monitor and respond to chemical, biological, radiological, or nuclear incidents; mitigate hazards and their effects; and allow military personnel and other mission-critical personnel to continue operating effectively. Operating forces must be prepared to recover casualties, decontaminate personnel and equipment, and establish a protective posture. In response to these emerging and other enduring challenges, the portfolio supports developing and transitioning innovative and evolving technologies to protect mission-essential personnel, capabilities and associated control and support systems.

Our RDT&E programs develop and field CWMD capabilities for the Joint Force, while at the same time exploring potential technologies to identify, characterize, and counter emerging threats.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	567,055	645,430				
Total Research, Development, Test & Evaluation	567,055	645,430				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
-----	-----	-----	-----
Research, Development, Test & Eval, DW		645,430	653,952
Total Research, Development, Test & Evaluation		645,430	653,952

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
-----						
Basic Research	14,244	11,828				
Applied Research	162,703	197,011				
Advanced Technology Development	335,186	409,862				
Advanced Component Development & Prototypes	19,931	7,166				
System Development & Demonstration	20,750	19,563				
Management Support	14,241					
Total Research, Development, Test & Evaluation	567,055	645,430				
<b>Summary Recap of FYDP Programs</b>						
-----						
Research and Development	567,055	645,430				
Total Research, Development, Test & Evaluation	567,055	645,430				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Basic Research		11,828	11,584
Applied Research		197,011	192,162
Advanced Technology Development		409,862	402,226
Advanced Component Development & Prototypes		7,166	7,130
System Development & Demonstration		19,563	28,496
Management Support			12,354
Total Research, Development, Test & Evaluation		645,430	653,952
<u>Summary Recap of FYDP Programs</u>			
Research and Development		645,430	653,952
Total Research, Development, Test & Evaluation		645,430	653,952

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
Basic Research	14,244	11,828				
Applied Research	162,703	197,011				
Advanced Technology Development	335,186	409,862				
Advanced Component Development & Prototypes	19,931	7,166				
System Development & Demonstration	20,750	19,563				
Management Support	14,241					
Total Research, Development, Test & Evaluation	567,055	645,430				
<b>Summary Recap of FYDP Programs</b>						
Research and Development	567,055	645,430				
Total Research, Development, Test & Evaluation	567,055	645,430				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
Basic Research		11,828	11,584
Applied Research		197,011	192,162
Advanced Technology Development		409,862	402,226
Advanced Component Development & Prototypes		7,166	7,130
System Development & Demonstration		19,563	28,496
Management Support			12,354
Total Research, Development, Test & Evaluation		645,430	653,952
<u>Summary Recap of FYDP Programs</u>			
Research and Development		645,430	653,952
Total Research, Development, Test & Evaluation		645,430	653,952

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Defense Threat Reduction Agency	567,055	645,430				
Total Research, Development, Test & Evaluation	567,055	645,430				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

<u>Appropriation</u>	<u>FY 2022 Total Supplemental Enactment</u>	<u>FY 2022 Total Enactment</u>	<u>FY 2023 Request</u>
Defense Threat Reduction Agency		645,430	653,952
Total Research, Development, Test & Evaluation		645,430	653,952

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N S P.L. 117-103 e Enactment**** c
1	0601000BR	DTRA Basic Research	01	14,244	11,828				U
		Basic Research		14,244	11,828				
13	0602134BR	Improvised Threat Reduction Applied Research	02	3,699					U
25	0602718BR	Counter Weapons of Mass Destruction Applied Research	02	159,004	197,011				U
		Applied Research		162,703	197,011				
33	0603134BR	Counter Improvised-Threat Simulation	03	3,861					U
34	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03	331,325	409,862				U
35	0603176BR	Advanced Concepts and Performance Assessment	03						U
		Advanced Technology Development		335,186	409,862				
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04	19,931					U
105	0604551BR	Catapult	04		7,166				U
		Advanced Component Development & Prototypes		19,931	7,166				
129	0605000BR	Counter Weapons of Mass Destruction Systems Development	05	15,250	14,063				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0601000BR	DTRA Basic Research	01		11,828	11,584	U
		Basic Research			11,828	11,584	
13	0602134BR	Improvised Threat Reduction Applied Research	02				U
25	0602718BR	Counter Weapons of Mass Destruction Applied Research	02		197,011	192,162	U
		Applied Research			197,011	192,162	
33	0603134BR	Counter Improvised-Threat Simulation	03				U
34	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03		409,862	395,721	U
35	0603176BR	Advanced Concepts and Performance Assessment	03			6,505	U
		Advanced Technology Development			409,862	402,226	
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04				U
105	0604551BR	Catapult	04		7,166	7,130	U
		Advanced Component Development & Prototypes			7,166	7,130	
129	0605000BR	Counter Weapons of Mass Destruction Systems Development	05		14,063	14,403	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05	5,500	5,500					U
		System Development & Demonstration		20,750	19,563					
159	0605502BR	Small Business Innovation Research	06	14,241						U
180	0606853BR	Management, Technical & International Support	06							U
		Management Support		14,241						
Total Research, Development, Test & Eval, DW				567,055	645,430					

R-123BBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05		5,500	14,093	U
		System Development & Demonstration			19,563	28,496	
159	0605502BR	Small Business Innovation Research	06				U
180	0606853BR	Management, Technical & International Support	06			12,354	U
		Management Support				12,354	
Total Research, Development, Test & Eval, DW					645,430	653,952	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

UNCLASSIFIED

Defense Threat Reduction Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N S P.L. 117-103 Enactment****	S e c
1	0601000BR	DTRA Basic Research	01	14,244	11,828					U
		Basic Research		14,244	11,828					
13	0602134BR	Improvised Threat Reduction Applied Research	02	3,699						U
25	0602718BR	Counter Weapons of Mass Destruction Applied Research	02	159,004	197,011					U
		Applied Research		162,703	197,011					
33	0603134BR	Counter Improvised-Threat Simulation	03	3,861						U
34	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03	331,325	409,862					U
35	0603176BR	Advanced Concepts and Performance Assessment	03							U
		Advanced Technology Development		335,186	409,862					
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04	19,931						U
105	0604551BR	Catapult	04		7,166					U
		Advanced Component Development & Prototypes		19,931	7,166					
129	0605000BR	Counter Weapons of Mass Destruction Systems Development	05	15,250	14,063					U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Threat Reduction Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0601000BR	DTRA Basic Research	01		11,828	11,584	U
	Basic Research				11,828	11,584	
13	0602134BR	Improvised Threat Reduction Applied Research	02				U
25	0602718BR	Counter Weapons of Mass Destruction Applied Research	02		197,011	192,162	U
	Applied Research				197,011	192,162	
33	0603134BR	Counter Improvised-Threat Simulation	03				U
34	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development	03		409,862	395,721	U
35	0603176BR	Advanced Concepts and Performance Assessment	03			6,505	U
	Advanced Technology Development				409,862	402,226	
98	0604134BR	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	04				U
105	0604551BR	Catapult	04		7,166	7,130	U
	Advanced Component Development & Prototypes				7,166	7,130	
129	0605000BR	Counter Weapons of Mass Destruction Systems Development	05		14,063	14,403	U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23



UNCLASSIFIED

Defense Threat Reduction Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05	5,500	5,500					U
		System Development & Demonstration		20,750	19,563					
159	0605502BR	Small Business Innovation Research	06	14,241						U
180	0606853BR	Management, Technical & International Support	06							U
		Management Support		14,241						
Total Defense Threat Reduction Agency				567,055	645,430					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Threat Reduction Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
137	0605141BR	Mission Assurance Risk Management System (MARMS)	05		5,500	14,093	U
		System Development & Demonstration			19,563	28,496	
159	0605502BR	Small Business Innovation Research	06				U
180	0606853BR	Management, Technical & International Support	06			12,354	U
		Management Support				12,354	
Total Defense Threat Reduction Agency					645,430	653,952	

R-123BBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 13:48:23

**UNCLASSIFIED**

Defense Threat Reduction Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
1	01	0601000BR	DTRA Basic Research.....	Volume 5 - 569

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
13	02	0602134BR	Improvised Threat Reduction Applied Research.....	Volume 5 - 575
25	02	0602718BR	Counter Weapons of Mass Destruction Applied Research.....	Volume 5 - 581

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
33	03	0603134BR	Counter Improvised-Threat Simulation.....	Volume 5 - 597
34	03	0603160BR	Counter Weapons of Mass Destruction Advanced Technology Development.....	Volume 5 - 601

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Threat Reduction Agency • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
35	03	0603176BR	Advanced Concepts and Performance Assessment.....	Volume 5 - 619

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
98	04	0604134BR	Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing.....	Volume 5 - 623
105	04	0604551BR	Catapult.....	Volume 5 - 653

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
129	05	0605000BR	Counter Weapons of Mass Destruction Systems Development.....	Volume 5 - 663
137	05	0605141BR	Mission Assurance Risk Management System (MARMS).....	Volume 5 - 679

**UNCLASSIFIED**

**UNCLASSIFIED**

Defense Threat Reduction Agency • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
159	06	0605502BR	Small Business Innovation Research.....	Volume 5 - 689
180	06	0606853BR	Management Technical and International Support.....	Volume 5 - 693

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Defense Threat Reduction Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Advanced Concepts and Performance Assessment	0603176BR	35	03.....	Volume 5 - 619
Catapult	0604551BR	105	04.....	Volume 5 - 653
Counter Improvised-Threat Simulation	0603134BR	33	03.....	Volume 5 - 597
Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	0604134BR	98	04.....	Volume 5 - 623
Counter Weapons of Mass Destruction Advanced Technology Development	0603160BR	34	03.....	Volume 5 - 601
Counter Weapons of Mass Destruction Applied Research	0602718BR	25	02.....	Volume 5 - 581
Counter Weapons of Mass Destruction Systems Development	0605000BR	129	05.....	Volume 5 - 663
DTRA Basic Research	0601000BR	1	01.....	Volume 5 - 569
Improvised Threat Reduction Applied Research	0602134BR	13	02.....	Volume 5 - 575
Management Technical and International Support	0606853BR	180	06.....	Volume 5 - 693
Mission Assurance Risk Management System (MARMS)	0605141BR	137	05.....	Volume 5 - 679
Small Business Innovation Research	0605502BR	159	06.....	Volume 5 - 689

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



## ACRONYMS

A2TD	Automated Advanced Targeting Development
AD	Agent Defeat
ADMB	Agent Defeat Modeling and Simulation Modeling
AI/ML	Artificial Intelligence/Machine Learning
ANTS	Attack the Network Tool Suite
ATAC	Advanced Targeting Assessment Capability
ATD	Advanced Technology Development
AWeS	Auto-Weaponering System
BAA	Broad Agency Announcement
CBRNE	Chemical, Biological, Radiological, Nuclear, and High-yield Explosives
CCDR	Combatant Commander
CCMD	Combatant Command
C-IED	Counter-Improvised Explosive Device

CNTN	Combatant Command Countering Nuclear Threat Network
COE	Consequence of Execution
CoE-NI	Consequence of Execution – Nuclear Integration
CONOPS	Concept of Operations
CONUS	Continental United States
C-sUAS	Counter-Small Unmanned Aerial Systems
CT/CP	Counterterrorism/Counterproliferation
CTBT	Comprehensive Nuclear Test Ban Treaty
CTS	Component Test Structure
C-UAS	Counter-Unmanned Aerial System
CWMD	Countering Weapons of Mass Destruction
CWMD-T	Combating Weapons of Mass Destruction –Terrorism
DAPSS	Denied Area Persistent Sensor System
DEL	DTRA Experimentation Lab
DIAMONDS	Defense Integration and Management of Nuclear Data Services
DIOCC/DIA	Defense Intelligence Operations Coordination Center/Defense Intelligence Agency

DITEC	DTRA Integration Technical Experimentation Center
DoD	Department of Defense
DPPG	Defense Policy and Planning Guidance
DRDC	Defense Research and Development Canada
DSCS	Defense Satellite Communications System
DT&E	Development, Test, and Evaluation
DTRA	Defense Threat Reduction Agency
DTRIAC	Defense Threat Reduction Information Analysis Center
ECA	Enhanced Consequence Analysis
ECBC	Edgewood Chemical Biological Center
EM-1	Capabilities of Nuclear Weapons: Effects Manual Number 1
EMP	Electromagnetic Pulse
EMREP	Electromagnetic Reliability and Effects Predictions
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
ERDC	U. S. Army Engineer Research and Development Center

FeFET	Ferroelectric Field Effect Transistors
FEFLO	Finite Element Flow Solver
FFRDC	Federally Funded Research and Development Center
FOC	Full Operational Capability
FREAK	Force-on-Force Evaluation and Analysis of Key Performance Parameters
FYDP	Future Years Defense Program
GBSD	Ground-Based Strategic Deterrent
HDBT	Hard and Deeply Buried Target
HPAC	Hazardous Prediction and Assessment Capabilities
HPC	High Performance Computing
HREIOR	High Resolution Electro-Optical Infrared Camera
HTD	Hard Target Defeat
HWIL	Hardware-in-the-Loop
IED	Improvised Explosive Device
IIRM	Interaction of Ionizing Radiation with Matter
IMAAC	Interagency Modeling and Atmospheric Assessment Center

IMEA	Integrated Munitions Effects Assessment
IMS	International Monitoring System
IoT	Internet of Things
IR	Infrared
ISS	Integrated Sensor System
IT	Information Technology
JOC	Joint Operations Center
JWICS	Joint Worldwide Intelligence Communications System
LAMP	Loop-mediated Isothermal Amplification
LBTS	Large Blast Thermal Simulator
LLE	Laboratory for Laser Energetics
LLNL	Lawrence Livermore National Laboratory
LTRI	Left-to-Right-of-Launch
M&S	Modeling and Simulation
MACS	Modular Autonomous Countering WMD System
MAGICS	Modular Airborne Gaseous Isotope Collection System

MCAPS	Mobile C-sUAS Airborne Platform Suite
MDA	Missile Defense Agency
MFO	Microwave Frequency Oscillator
MIL-HDBK	Military Handbook
MIL-STD	Military Standard
MINES	Mission Impact of Nuclear Effects Software
MIT	Mission Information Technology
MSEE	Materials Science in Extreme Environments
NACT	Nuclear Arms Control Technology
NAIMLE	Artificial Intelligence/Machine Learning Environment (NAIMLE )
NBCRV	Nuclear Biological Chemical Reconnaissance Vehicle
NCBRE	Nuclear, Chemical, Biological, Radiological, and High-Yield Explosive
NIEM	National Information Exchange Model
NIPR	Non-classified Internet Protocol Router
NLAN	Non-classified Local Area Network
NTM	Improved National Technical Means (NTM)

NuCS	Nuclear Capabilities Services
NWE	Nuclear Weapons Effects
OGA	Other Governmental Agencies
QRC	Quick Reaction Capabilities
RN	Radiological-nuclear
SAR	Synthetic Aperture Radar
SIPR	Secret Internet Protocol Router
SPIDA	Spectral Polarimetric Instrument Data Analysis
SPINS	Standoff Portable Isotopic Neutron Spectroscopy
sUAS	Small Unmanned Aerial Systems
TTP	Tactics, Techniques, and Procedures
TWAC	Targeting Weaponering Assistance Cell
TXL	Transportable Xenon Laboratory
UAS	Unmanned Aerial Systems
UCP	Unified Command Plan
UGF	Underground Facility

UGT	Underground Test
UK	United Kingdom
URA	University Research Alliance
USANCA	U.S. Army Nuclear and Combating WMD Agency
USEUCOM	U.S. European Command
USFK	U.S. Forces Korea
USG	United States Government
USNORTHCOM	U.S. Northern Command
USPACOM	U.S. Pacific Command
USSOCOM	U.S. Special Operations Command
USSTRATCOM	U.S. Strategic Command
UTAS	Underground Targeting and Analysis System
V&V	Verification and Validation
VAPO	Vulnerability Assessment and Protection Option
VEO	Violent Extremist Organization
VIPER	Vehicle Integrated Platform Enhanced Radiac



VIRTUS	Virtual Radiation Training Through Ubiquity System
VMS	Virtual Management System
VR/AR	Virtual Reality/Augmented Reality
WEP	Weapon Effects Phenomenology
WMD	Weapons of Mass Destruction
WSMR	White Sands Missile Range

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 1: <i>Basic Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	386.814	14.244	11.828	11.584	0.000	11.584	11.715	11.945	12.184	12.427	-	-
RU: <i>Basic Research for Countering WMD</i>	386.814	14.244	11.828	11.584	0.000	11.584	11.715	11.945	12.184	12.427	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Basic Research for Countering WMD project, as the nation’s primary basic research portfolio dedicated to countering weapons of mass destruction (CWMD), is a core strategic investor in future scientific and technological progress across the Defense Threat Reduction Agency’s (DTRA) mission areas. This project concentrates on high-risk, high-payoff basic research, leveraging world-class expertise in academia, government, and industry, to increase the foundational body of scientific knowledge supporting DTRA’s Applied Research and Advanced Technology Development projects.

This project aligns with DTRA’s strategic objectives that support policy and planning guidance from the Executive Office of the President, the DoD, and the broader WMD threat reduction community. The portfolio addresses this guidance through capability enhancements, projects, and Science and Technology (S&T) investments that support CWMD. Specifically, they include: accelerating the development of standoff radiological/nuclear detection capabilities; securing vulnerable materials; defeating WMD agents; strategic radiation hardened microelectronics; and leveraging science, technology, and innovation through domestic partnerships and agreements.

This project solicits, coordinates, and conducts research to build a robust, forward-looking fundamental research portfolio targeting strategic, mission-focused, basic research with high potential impact for CWMD. The research projects are selected for scientific merit, technical quality, and the potential for innovation. Each research project offers opportunities to expand the knowledge base to help the warfighter, to bring to bear new science solutions with a fresh approach, or to leverage revolutionary approaches to technical surprise, building a foundation for future CWMD solutions. This research will enable new capabilities to control, defeat, disable, and/or dispose of WMD threats.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Defense Threat Reduction Agency	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 1: <i>Basic Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	14.617	11.828	0.000	0.000	0.000
Current President's Budget	14.244	11.828	11.584	0.000	11.584
Total Adjustments	-0.373	0.000	11.584	0.000	11.584
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.373	-			
• Adjustments to Budget Year	-	-	11.584	0.000	11.584

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 1					<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / DTRA Basic Research				<b>Project (Number/Name)</b> RU / Basic Research for Countering WMD			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RU: <i>Basic Research for Countering WMD</i>	386.814	14.244	11.828	11.584	0.000	11.584	11.715	11.945	12.184	12.427	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Basic Research for Countering WMD project, as the nation’s primary basic research portfolio dedicated to countering weapons of mass destruction (CWMD), is a core strategic investor in future scientific and technological progress across the Defense Threat Reduction Agency’s (DTRA) mission areas. This project concentrates on high-risk, high-payoff basic research, leveraging world-class expertise in academia, government, and industry, to increase the foundational body of scientific knowledge supporting DTRA’s Applied Research and Advanced Technology Development projects.

This project aligns with DTRA’s strategic objectives that support policy and planning guidance from the Executive Office of the President, the DoD, and the broader WMD threat reduction community. The portfolio addresses this guidance through capability enhancements, projects, and Science and Technology (S&T) investments that support CWMD. Specifically, they include: accelerating the development of standoff radiological/nuclear detection capabilities; securing vulnerable materials; defeating WMD agents; strategic radiation hardened microelectronics; and leveraging science, technology, and innovation through domestic partnerships and agreements.

This project solicits, coordinates, and conducts research to build a robust, forward-looking fundamental research portfolio targeting strategic, mission-focused, basic research with high potential impact for CWMD. The research projects are selected for scientific merit, technical quality, and the potential for innovation. Each research project offers opportunities to expand the knowledge base to help the warfighter, to bring to bear new science solutions with a fresh approach, or to leverage revolutionary approaches to technical surprise, building a foundation for future CWMD solutions. This research will enable new capabilities to control, defeat, disable, and/or dispose of WMD threats.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Project RU: Basic Research for Countering WMD	14.244	11.828	11.584	0.000	11.584
<b>Description:</b> Project RU funds the exploration and discovery of fundamental scientific knowledge related to DTRA’s CWMD mission by research partnerships with academia, government, and industry. DTRA’s Basic Research University Research Alliance (URA) program conducts revolutionary CWMD scientific research with broad applicability across multiple mission areas. DTRA’s basic research sets conditions for disruptive gains in the future effectiveness of technology-enabled concepts of operation not possible through evolutionary research. In FY 2021, DTRA established two URAs; Materials Science in Extreme Environments (MSEE) and Interaction of Ionizing Radiation with Matter (IIRM).					
<b>FY 2022 Plans:</b>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 1	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research</i>	<b>Project (Number/Name)</b> RU / <i>Basic Research for Countering WMD</i>
--	---	---

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Enable new methods to disrupt WMD attacks, enhance conventional nuclear integration, and improve enhanced consequence analysis. This Materials Science in Extreme Environments (MSEE) is a URA of 18 institutions from across the nation led by Johns Hopkins University.</p> <p>- Enhance capabilities to counter nuclear threat networks, enhance WMD survivability, and improve understanding the WMD environment. Interaction of Ionizing Radiation with Matter (IIRM) is a URA of 15 institutions nationwide led by Pennsylvania State University.</p> <p><b>FY 2023 Base Plans:</b> DTRA enters the third year of its URA program. The overarching goals of the two URAs remain unchanged.</p> <p>Collectively the URAs are training more than 177 students in STEM fields critical to DTRA's mission. Importantly the URAs are providing critical exposure to DTRA-mission relevant research via internships to 87 cadets and midshipmen from the US Service Academies and ROTC programs. The URAs published 42 peer reviewed journal articles during the first year of operation.</p> <p>The DTRA Basic Research funded Materials Science in Extreme Environments (MSEE) URA, led by Johns Hopkins University, includes a team of 18 universities that work collaboratively with DTRA personnel to advance the fundamental understanding of material properties and mechanisms in non-equilibrium high pressure, high temperature, and high photon number regimes. The MSEE URA will enable new methods to disrupt WMD attacks, enhance conventional nuclear integration, and improve enhanced consequence analysis.</p> <p>- Complete first principles calculations and experiments that will improve DoD models of nuclear fireball dynamics across various environments.</p> <p>- Add new diagnostics, i.e., a flash x-ray spectrometer, to the experimental facility Hypervelocity Facility for Impact Research Experiments (HyFIRE). Conduct experiments to improve DoD models of penetration into quartzite and sandstone for Hard and Deeply Buried Target defeat.</p> <p>- Test alliance designed and fabricated material targets at the OMEGA Laser Facility to investigate the effect of pulse length on thermomechanical shock propagation.</p> <p>- Investigate the effect of reduced laser power and tamper materials to support additional tampered OMEGA shot.</p> <p>- Develop composite nanoparticles with a staged energy release.</p> <p>- Create staged energy release composites and additive manufacturing-derived structure-function relationships.</p>					

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 1	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / DTRA Basic Research	<b>Project (Number/Name)</b> RU / Basic Research for Countering WMD
--	--	--

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>The Interaction of Ionizing Radiation with Matter (IIRM) URA, led by Pennsylvania State University, includes a team of 14 partner institutions that work collaboratively with DTRA personnel to advance the fundamental understanding of the interaction of radiation with materials for detection and electronics, devices and integration, nuclear survival and response, modeling, and simulation. Ultimately this investment will enable radiation sensing from multiple platforms; cost effective hardening and hardness testing of DoD systems; and safe and efficient military operations in a nuclear environment.</p> <ul style="list-style-type: none"> <li>- Study novel findings on semiconductors for radiation detection that competes with the state of the art without the need for refrigeration or mechanical cooling to low temperatures, providing the potential for significant reduction to size, weight, and power, and ease of field use of current radiation detection capabilities.</li> <li>- Synthesize and test functional fibers with embedded microchip readouts that could be woven into uniforms for wearable radiation sensing.</li> <li>- Conduct experiments at the Los Alamos Neutron Science Center for Systems on a Chip survivability in high neutron dose environments.</li> <li>- Determine appropriate gas concentrations to enable long range radiation detection, concentrate on experiments for laser based sensing methods to detect radiation plumes and contamination from long range.</li> <li>- Conduct additional testing on transconductance for alliance designed and fabricated Ferroelectric Field Effect Transistors (FeFETs); test for radiation effects to drive an improved device design for fabrication.</li> <li>- Verify and expand scintillation experiments with a focus toward potential integration with semiconductor materials for combined improvements in radiation detection.</li> </ul> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease from FY 2022 to FY 2023 is due to the residual impact of prior portfolio rebalancing to fund higher priority RDT&amp;E programs.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	14.244	11.828	11.584	0.000	11.584

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 1	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research</i>	<b>Project (Number/Name)</b> RU / <i>Basic Research for Countering WMD</i>
--	---	---

**D. Acquisition Strategy**

Procurement methods include competitive selection awards through university partnerships, DTRA's Broad Agency Announcement, and collaborative funding through other organizations.



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602134BR / <i>Improvised Threat Reduction Applied Research</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.502	3.699	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.201
JC: <i>Enable Rapid Capability Delivery</i>	0.502	1.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.752
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	0.000	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449

**A. Mission Description and Budget Item Justification**

The Defense Threat Reduction Agency (DTRA) Improvised Threat Reduction Applied Research program element (PE) funds technology outreach to produce studies that will drive earlier understanding of technologies and scientific theories for future programs to enhance the Department of Defense's ability to effectively counter asymmetric threats. Asymmetric threats are characterized by an environment in which an adversary employs a combination of conventional weapons, irregular tactics, and/or terrorism to obtain their objectives. The end-state of the PE is to evaluate the feasibility and practicality of research projects, taking the most promising proposals and translating them into practical prototypes for use against asymmetric threats.

Activities within this PE are driven by efforts to understand, anticipate, illuminate, isolate, and enable timely research that hastens the development of new capabilities for countering global asymmetric threats and emerging technologies.

<b>B. Program Change Summary (\$ in Millions)</b>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	3.699	0.000	0.000	0.000	0.000
Current President's Budget	3.699	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

There is no change from the previous President's Budget.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602134BR / <i>Improvised Threat Reduction Applied Research</i>				<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JC: <i>Enable Rapid Capability Delivery</i>	0.502	1.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.752

**A. Mission Description and Budget Item Justification**

The Defense Threat Reduction Agency (DTRA) takes a deliberate, structured, and proactive approach to meet future capability gaps and requirements through continuous study. DTRA enables DoD, the U.S. Government, and International Partners to counter and deter Weapons of Mass Destruction and emerging threats. The mission is embodied in three capability areas: understand the environment, threats, and vulnerabilities; control, defeat, disable, and dispose of WMD and asymmetric threats; and safeguard the force and manage consequences.

Activities within this project are driven by current and anticipated asymmetric threats. The applied research enables the understanding and shaping of new theories and development of new technologies in support of Combatant Commands and the DoD. The applied research will drive programmatic action to anticipate, illuminate, isolate, and mitigate asymmetric threats.

This project investigates emerging threat technologies as well as developing analysis support tools that identify emergent capability requirements and associated gaps. It provides timely acquisition and delivery of solutions to address evolving threats.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> JC: Enable Rapid Capability Delivery	1.250	0.000	0.000	0.000	0.000
<b>Description:</b> This project assesses current and emerging technologies that address the evolving asymmetric threat environment.					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> N/A					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.250	0.000	0.000	0.000	0.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602134BR / <i>Improvised Threat Reduction Applied Research</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>			<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 33/0603134BR/JC: <i>Counter Improvised-Threat Simulation</i>	3.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.861
• 98/0604134BR/JC: <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	11.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11.491

**Remarks**

**D. Acquisition Strategy**

Competitive selection of most appropriate performers to fulfill science and technology development needs.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602134BR / <i>Improvised Threat Reduction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	0.000	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449

**A. Mission Description and Budget Item Justification**

This project manages Countering Weapons of Mass Destruction (CWMD) community studies, strategic dialogues, and tabletop exercises to provide insights into emerging threats and future challenges to DTRA, DoD, and the warfighter. It delivers operationally relevant, credible, timely, and actionable recommendations to inform future operations, activities, and investments in support of countering weapons of mass destruction. In FY 2021, this project sponsored strategic research into weapons of mass destruction (WMD) trends and emerging science and technology that are anticipated to shape the future battlespace and require changes to DTRA's prioritization and/or focus. This project supported international dialogues with allies and partners, strategic studies not otherwise covered in the extant literature, and the development/delivery of experiential learning table top exercises to DTRA and the CWMD community. These sponsored activities produced custom recommendations DTRA, DoD, and the USG can use to mitigate the adverse effects of WMD challenges.

Additionally, funding in this project provides for support to optimize organizational policy development, decision making, research and development project management, engineering and technical analysis, and other professional support services to improve the effectiveness of program processes, procedures, and outcomes.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> CWMD Cross-Cutting Technical and Information Sciences	2.449	0.000	0.000	0.000	0.000
<b>Description:</b> This project manages Countering Weapons of Mass Destruction (CWMD) community studies, strategic dialogues, and tabletop exercises to provide insights into emerging threats and future challenges to DTRA, DoD, and the warfighter.					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> N/A					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602134BR / <i>Improvised Threat Reduction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	2.449	0.000	0.000	0.000	0.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 25/0602718BR: <i>Counter Weapons of Mass Destruction Applied Research</i>	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
• 98/0604134BR: <i>Counter Improvised- Threat Technology Demonstration, Prototype Development</i>	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
• 105/0604551BR: <i>Catapult</i>	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing
• 159/0605502BR: <i>Small Business Innovation Research</i>	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	756.569	159.004	197.011	192.162	0.000	192.162	205.414	208.558	203.879	200.236	Continuing	Continuing
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	346.681	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing
RD: <i>Nuclear Technologies and Capabilities Development</i>	145.646	83.538	101.229	106.095	0.000	106.095	110.854	112.082	114.321	111.359	Continuing	Continuing
RG: <i>Counter WMD Technologies and Capabilities Development</i>	134.528	20.752	29.359	30.277	0.000	30.277	30.871	31.589	32.220	31.788	Continuing	Continuing
RR: <i>CWMD Test and Evaluation</i>	129.714	18.426	18.311	23.120	0.000	23.120	23.771	23.973	24.699	23.546	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Defense Threat Reduction Agency (DTRA) Counter Weapons of Mass Destruction (CWMD) Applied Research program element funds the application and advancement of basic scientific knowledge to develop novel materials, devices, systems, and methods supporting next generation concepts and technologies, to include advances in Weapons of Mass Destruction (WMD) surveillance, detection, defeat, prevention, nonproliferation, counter proliferation, consequence management, and treaty verification.

This Applied Research portfolio is aligned with strategic planning objectives and Science and Technology (S&T) investment direction established annually by DTRA, which directly support policy and planning guidance from the Executive Office of the President, the Department of Defense (DoD), and the broader WMD threat reduction community.

The portfolio advances DTRA's CWMD mission by balancing the following: invest in DTRA's applied research capabilities and increase the CWMD technology base to maximize future pay-off; capitalize on opportunities to deliver innovative, cost-effective solutions to technical challenges that must be resolved prior to system-specific technology investigations and development; and ensure applied research efforts are directly aligned to the mission-specific capability requirements of DTRA, the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	174.221	197.011	0.000	0.000	0.000
Current President's Budget	159.004	197.011	192.162	0.000	192.162
Total Adjustments	-15.217	0.000	192.162	0.000	192.162
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-10.618	-			
• SBIR/STTR Transfer	-4.599	-			
• Adjustments to Budget Year	0.000	0.000	192.162	0.000	192.162

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding. In FY 2021, DTRA reprogrammed funding for higher Departmental priorities.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	346.681	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The CWMD Cross-Cutting Technical and Information Sciences project develops concepts and technologies in the areas of high-speed information processing, modeling and simulation, signal detection, and data-driven decision analysis in support of the Defense Threat Reduction Agency's (DTRA's) technical reach-back teams. This project develops and maintains continuously improving collaborative architectures and Weapons of Mass Destruction (WMD) modeling and simulation codes that drive an integrated suite of decision support tools serving the Combatant Commands, other Department of Defense (DoD) agencies, and national and international Countering WMD (CWMD) partners. This effort also funds research activities that benefit the public through analysis and engagement to reduce and counter threats posed by WMD via the Strategic Trends Research Initiative (STRI). STRI cultivates national and international research community partnerships across domains, bringing scientific, technical, and social science experts together to help understand and anticipate WMD capabilities and threats.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p><b>Title:</b> RA: CWMD Cross-Cutting Technical and Information Sciences</p> <p><b>Description:</b> Project RA develops concepts and technologies in the areas of high-speed information processing, modeling and simulation, signal detection, and data-driven decision analysis.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop and sustain advanced information technology capabilities enabling CWMD situational understanding and leverage advanced data science techniques to improve threat analysis to better inform operational planning.</li> <li>- Transition new data science solutions to improve real-time threat analysis into regular operational use.</li> <li>- Leverage non-traditional acquisition means to develop and deliver technical capabilities responsive to urgent, emergent theater requirements in support of critical strategic partners.</li> <li>- Deliver timely technical capabilities in response to Combatant Command (CCMD) emergent needs that would otherwise not be met in the required timeline.</li> <li>- Provide integrated support for effective transition to advanced development partners by leveraging an overarching assessment approach to capability development efforts to identify promising efforts for potential transition, will improve transition effectiveness rate.</li> <li>- Assist in transition of additional projects that may otherwise not transition effectively to a sustainable partnership.</li> </ul>	36.288	48.112	32.670	0.000	32.670

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<ul style="list-style-type: none"> <li>- Utilize new and emergent advanced modeling and simulation tools and development activities to develop two integrated CWMD modeling capabilities to support in theater operational planning.</li> <li>- Generate timely and actionable recommendations on mitigation of anticipated future challenges based upon assessment/analysis of foreign and domestic Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE) trends.</li> <li>- Develop timely and relevant table top exercises and refine strategic dialogues/symposia/fora to accommodate year-upon-year learning and advancement on anticipated future battlespace challenges.</li> <li>- Refine strategic research projects to improve tangible outcomes and achievable recommendations for future activities to counter WMD development and use.</li> <li>- Continue developing quarterly updates to forecasted changes/developments in geopolitical landscapes and the intersection of CBRNE and WMD employment systems.</li> <li>- Leverage CBRNE community resources to provide in-depth and expert analysis to current and future WMD problem sets.</li> </ul> <p><b><i>FY 2023 Base Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Develop new and emergent advanced modeling and simulation tools, applications and other development activities to develop two, and deliver one new, integrated CWMD modeling capabilities to support in theater operational planning.</li> <li>- Develop analytics using machine and deep learning to provide geospatial prediction analysis and behavior variance for CWMD pattern-of-life analysis.</li> <li>- Develop processing algorithms using artificial intelligence and machine learning to tip and cue analysts for CWMD threat network analysis.</li> <li>- Provide strategic, urgent Counter-Threat capability development for urgent and emergent theater needs, with focus on detector and sensor design, data analysis and storage, search capabilities, defeat pathways, and continuous test site technical advancement.</li> <li>- Develop data integration, analysis and visualization solutions in support of CCMDs, Special Operations Forces, and other mission partners. Incorporate new technologies to increase the scalability, reusability, and transferability of data science capabilities developed across commands/units supported.</li> <li>- Apply advanced analytics to develop novel capabilities for illuminating and disrupting procurement and proliferation networks and coordinating CWMD operations. Will transition at least two operational prototypes to supported commands/units or advanced developers.</li> </ul>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
- Conduct studies and table-top exercises to understand and explore the Chemical Biological Radiological and Nuclear spectrum and enabling technology challenges facing our warfighters in the next five to ten years.					
<b><i>FY 2023 OCO Plans:</i></b> N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The decrease from FY 2022 to FY 2023 is due to the net impact of 1) the realignment of resources to PE 0603160BR in Project RR for a) data architecture signatures technology development to locate, identify, and track special nuclear materials and b) necessary upgrades to national test bed capabilities, 2) a realignment to O&M to fund expert dialogues with specialists at universities for global futures strategic planning, and 3) realignments from quick reaction capabilities to better align investments to National, Departmental, and Agency level strategic guidance.					
<b>Accomplishments/Planned Programs Subtotals</b>	36.288	48.112	32.670	0.000	32.670

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 13/0602134BR: <i>Improvised Threat Reduction Applied Research</i>	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
• 98/0604134BR: <i>Counter Improvised- Threat Technology Demonstration, Prototype Development and Testing</i>	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
• 105/0604551BR: <i>Catapult</i>	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing
• 159/0605502BR: <i>Small Business Innovation Research</i>	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.241

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**D. Acquisition Strategy**

Competitive selection of most appropriate performers to fulfill science and technology development needs.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>RD: Nuclear Technologies and Capabilities Development</i>	145.646	83.538	101.229	106.095	0.000	106.095	110.854	112.082	114.321	111.359	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Nuclear Technologies and Capabilities Development encompasses the following related areas:

Research, development, test, and evaluation (RDT&E) to identify, develop, and exploit signatures associated with nuclear threats in support of U.S. capabilities that detect and interdict such threats; and locate, identify, and track special nuclear material and improve detection factors such as range, time, sensitivity, and accuracy to enhance Service and Special Mission Unit capabilities. These efforts support Department of Defense (DoD) requirements for countering terrorism, counterproliferation, nonproliferation, countering rogue states, and homeland defense.

RDT&E to systematically study signatures associated with adversary nuclear programs and nuclear detonations to gain knowledge or understanding necessary to: determine technical capabilities needed to improve DoD contingency planning activities; improve DoD situational awareness on the nuclear battlefield; and improve capabilities to attribute the source of a nuclear detonation.

Research and develop innovative technologies for the protection of mission-essential personnel, critical military and national defense capabilities, and associated control and support systems during a nuclear event. Research under this project supports the mission critical systems identified under DoD Instruction 3150.09, Chemical, Biological, Radiological, and Nuclear Survivability Policy. System vulnerability research develops nuclear assessment capabilities to support operational planning, weapons effects predictions, and strategic system design. This activity also provides the DoD's nuclear design and protection standards for new and existing systems, e.g., command and control facilities and aircraft. Key systems include the Nuclear Command and Control System, the net-centric thin-line, and both military and civilian satellites and associated support systems. Experimental capabilities research provides the warfighter with unique x-ray, gamma ray, and electromagnetic pulse (EMP) test capabilities in support of system survivability development, certification, and sustainment. These efforts also support international collaboration, user groups, case study reviews, and the Joint Atomic Information Exchange Group. The human survivability effort conducts research to develop and validate mortality and morbidity models associated with radiological and nuclear weapon effects.

Research and development modeling tools to support military operational planning, weapons effects predictions, and strategic system design decisions; consolidate validated modeling tools for integrated functionality; predict system responses to nuclear and radiological weapons producing electromagnetic, thermal, blast, shock, and radiation environments; provide detailed adversary nuclear infrastructure characterization to enhance counterforce operations and hazard effects; and, develop foreign nuclear weapon outputs.

Delivers integrated applications, data analysis, and cloud-ready AI-enhanced capabilities, cross-cutting platform supporting full spectrum of nuclear operations, wargaming, and assessments. Provides timely electronic access to Nuclear Testing Archives supporting validation of the effectiveness of the Nuclear Deterrent and survivability of US military assets without a return to nuclear testing.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p><b>Title:</b> RD: Nuclear Technologies and Capabilities Development</p> <p><b>Description:</b> Project RD develops direct and indirect technologies for the detection of radiation and non-radiative signatures associated with nuclear threats, and advances warfighter capabilities to rapidly locate, characterize, and counter such threats.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Sponsor/host one trial nuclear wargame with current Mission Impact of Nuclear Effects Software (MINES) capabilities; advance nuclear wargaming research to include other nuclear weapon effects and incorporate into MINES development.</li> <li>- Develop prototype sensors using novel materials (e.g. CLLBC (Cs<sub>2</sub>LiLa(Br,Cl)<sub>6</sub>:Ce, Dual-sided micro-structured semiconductor neutron detectors (DSMSNDs)) for evaluation of military applications.</li> <li>- Develop improved nuclear weapons outputs models that correctly account for radioactive debris, improving estimates of fallout-induced casualties and impacts on space and missile forces.</li> <li>- Develop improved nuclear weapons induced fire ignition models that correctly account for thick fuels, improving estimates of battle and collateral damages from nuclear plans.</li> <li>- Conduct tests at the U.S. Army White Sands Missile Range (WSMR) Large Blast Thermal Simulator (LBTS) to quantify combined airblast and thermal effects, improving estimates of impacts to ground maneuver forces operating on a nuclear battlefield.</li> <li>- Integrate toolsets in cloud platform for nuclear planning, Nuclear, Chemical, Biological, Radiological, and High-Yield Explosive (NCBRE) assessments, and advanced analytics in support of Service and Combatant Command planning and assessments and Conventional Nuclear Integration situational awareness - includes tool development to synthesize necessary modeling data for tool sets.</li> <li>- Provide integration support for nuclear technology programs; support international activities, user groups, nuclear survivability program, and case study reviews. Also utilizes the Nuclear Science and Engineering Research Center to leverage DoD Degree Granting Institutions to develop new capabilities and advance DTRA's mission to support the warfighter.</li> <li>- Publish updates to nuclear survivability military standards for aircraft, ships, missiles and interceptor.</li> <li>- Support nuclear modernization through the certification of strategic materials and the upgrade of nuclear effects testing and diagnostics.</li> <li>- Provide nuclear survivability operational support through analyses, vulnerability assessments, and the review of mission critical systems.</li> </ul>	83.538	101.229	106.095	0.000	106.095

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Deliver enhanced cloud platform with integrated toolsets for nuclear planning, Nuclear, Chemical, Biological, Radiological, and high Explosive (NCBRE) assessments, and advanced analytics for warfighter and Conventional-Nuclear Integration (CNI) situational awareness.</p> <p>- Deliver integrated improved nuclear physics and effects model in theater nuclear planning tool, improving accuracy of nuclear planning capability for US Army and Combatant Commands (CCMDs).</p> <p>- Provide advanced search and discovery Artificial intelligence/Machine Learning (AI/ML) algorithms for improved media retrieval capability documents (20%), photographs (2%), and films (.5%), enabling nuclear survivability and effects programs with higher fidelity data.</p> <p><b>FY 2023 Base Plans:</b></p> <p>- Conduct technical demonstration of radiological-nuclear (RN) Virtual Reality/Augmented Reality (VR/AR) capabilities.</p> <p>- Investigate autonomous operations and swarming applications for radiation sensors on unmanned platforms.</p> <p>- Mature advanced search and discovery (ASD) of archived nuclear documents using AI/ML algorithms to support increased user portal retrieval capability of information from documents (25%), photographs (10%), and films (2%) to enable nuclear survivability and effects algorithm programs with higher fidelity data.</p> <p>- Enhance Nuclear, Chemical, Biological, Radiological, High Explosives (NCBRE) Artificial Intelligence/Machine Learning Environment (NAIMLE) data curation and operability specific to RN data types; integration of container development between working data models related to nuclear missions</p> <p>- Integrate 3D effects model supporting aviation assets in theater nuclear planning tool to improve nuclear planning capability for US Army and CCMDs.</p> <p>- Deliver tools for visualization of data feeds to meet warfighter needs and for sharing data with foreign partners (Supporting Nuclear Enterprise Threat Characterization and Nuclear Enterprise Threat Isolation).</p> <p>- Facilitate three nuclear war-games design and operation with Mission Impacts of Nuclear Events (MINES); Support five DoD nuclear war-games &amp; exercises design and operation with SME, existing tools, and MINES capabilities; Sponsor/host two nuclear war-games with updated MINES capabilities.</p> <p>- Initiate x-ray development to optimize key performance parameters on new Quad Eagle Simulator; enable growth and continued availability of DTRA's capabilities.</p> <p>- Develop EMP Planning Tools (Electromagnetic Reliability &amp; Effects Prediction (EMREP) v9, STRATCOM Support equipment, Nuclear Battlefield Test Support).</p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
- Conduct EMP modular expansion and data demonstration, scintillation Hardware-in-the-Loop (HWIL) production/certification demonstrations, modeling and experimentation to characterize dose rate, and neutron effects.  <b>FY 2023 OCO Plans:</b> N/A  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase from FY 2022 to FY 2023 is primarily for increased investment in nuclear survivability. This increase will fund new Combatant Command Electromagnetic Pulse (EMP) testing requirements for various battlefield systems, surface vessels, and aircraft.					
<b>Accomplishments/Planned Programs Subtotals</b>	83.538	101.229	106.095	0.000	106.095

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 34/0603160BR/RD: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	46.587	54.417	60.249	0.000	60.249	59.722	61.765	62.800	63.855	Continuing	Continuing
• 129/0605000BR/RD: <i>Counter Weapons of Mass Destruction Systems Development</i>	15.250	14.063	14.403	0.000	14.403	13.414	13.381	13.649	13.922	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Competitive selection of most appropriate performers to fulfill science and technology development needs.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>				<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RG: <i>Counter WMD Technologies and Capabilities Development</i>	134.528	20.752	29.359	30.277	0.000	30.277	30.871	31.589	32.220	31.788	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Counter WMD Technologies and Capabilities Development encompasses the following areas.

Defeat Technologies program develops innovative kinetic and non-kinetic weapon technologies to expand traditional and asymmetric options available to Combatant Commanders to deny, disrupt, and defeat adversarial use of WMD, while minimizing collateral effects. Technology development focuses on the physical or functional defeat of WMD threat materials, an adversary's ability to deliver the same, and the physical and nonphysical support networks enabling both. It does so through the systematic identification and maturation of technologies capable of defeating WMD agents or agent-based processes and selecting technologies for integration into weapons, delivery systems, or rapid WMD elimination capabilities. This effort includes developing specific WMD agent/agent-based process simulants, sub-scale test infrastructure, and sampling capability required for effective development, testing, and evaluation of next-generation CWMD capabilities. The project places a high priority on understanding, characterizing, and validating potential weapon effects within mathematical confidence as it relates to the unintended release of hazardous threat materials. Technologies with the potential for weapon and capability integration are transitioned to Budget Activity (BA) 3, Advanced Technology Development (ATD) efforts. On a limited basis, technology test data is shared with coalition partners.

WMD counterforce technologies research develops weapons effects modeling algorithms, full and sub-scale test series required to investigate CWMD weapon effects and sensor performance, and visualization and situational awareness tools to support the next generation Technical Reachback cell. These activities are critical enablers for the development of advanced CWMD planning tools. Energetics research develops materials and weapon design technology providing defeat capabilities for engaging hard and deeply buried targets that are beyond current high explosive blast/fragmentation warhead technology.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RG: Counter WMD Technologies and Capabilities Development	20.752	29.359	30.277	0.000	30.277
<b>Description:</b> Project RG develops innovative kinetic and non-kinetic weapons technologies to expand traditional and asymmetric options available to Combatant Commanders to deny, disrupt, and defeat adversarial use of WMD while minimizing collateral effects.					
<b>FY 2022 Plans:</b>					
- Initiate Next Generation Access Denial capability based on studies conducted in FY 2021.					
- Develop and transition next generation agent defeat capabilities utilizing enhanced energetics, advanced manufacturing techniques and tactics that improve performance and lethality and reduce production time and cost.					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<ul style="list-style-type: none"> <li>- Complete Coalition Warfare Program-Autonomous Tunnel Exploitation with RoK.</li> <li>- Explore operationalizing nontraditional data; Transition WMDpedia.</li> <li>- Complete independent review of forecasting tactics, techniques, and procedures (TTPs), improve regional assessments, validate effectiveness of forecasting TTPs.</li> <li>- Program, plan, and manage Explosive Ordnance Disposal (EOD) diagnostics and defeat projects and deliver technologies.</li> <li>- Program, plan, and manage low-visibility and breaching projects and deliver technologies.</li> <li>- Provide Systems Engineering and Integration support for both internal DTRA programs and provide subject matter expertise to external organizations with efforts related to CWMD and hard and deeply buried target (HDBT) defeat.</li> <li>- Support Combatant Command (CCMD) operational planning activities while identifying warfighting capability gaps.</li> <li>- Deliver Targeting Recommendation Packages and conduct training activities as requested by the CCMDs.</li> <li>- Support weapons effects testing programs and weapons development activities.</li> </ul> <p><b>FY 2023 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop, test, and evaluate specialized capabilities to protect against and defeat WMD through diagnostics and characterization of Agent Defeat Modeling and Simulation Modeling (ADMB).</li> <li>- Conduct lab-scale tests and large/full-scale test event to validate source term prediction capabilities for ADMB.</li> <li>- Conduct small and mid-scale tests to verify weapons effects phenomenology (WEP) models (e.g. over-burial and penetration).</li> <li>- Begin to explore a Cloud Based Solution transition and continue multi-dimensional upgrades into the Vulnerability Assessment and Protection Option (VAPO) Platform.</li> <li>- Complete partnership with U. S. Army Engineer Research and Development Center (ERDC) and the United Kingdom (UK) to deliver a VAPO capability allowing end users to perform an assessment of aerial delivered threats and weapons.</li> <li>- Initiate combined effects model development with completion of Hi-Fi calculations.</li> <li>- Explore existing Artificial Intelligence/Machine Learning (AI/ML) advancements for weapons effects phenomenology RDT&amp;E application.</li> <li>- Program, plan, and manage Explosive Ordnance Disposal (EOD) diagnostics and defeat projects and deliver technologies.</li> <li>- Program, plan, and manage low-visibility and breaching projects and deliver technologies.</li> </ul>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
- Provide Systems Engineering and Integration support for internal DTRA programs and provide subject matter expertise to external organizations with efforts related to CWMD and hard and deeply buried target (HDBT) defeat. - Deliver Targeting Recommendation Packages and conduct training activities as requested by the CCMDs. - Support weapons effects testing programs and weapons development activities in support of Combatant Command CWMD requirements.  <b>FY 2023 OCO Plans:</b> N/A  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase from FY 2022 to FY 2023 is mostly due to inflation and a slight investment increase in CWMD Hard Target Defeat (HTD) Weapons Technologies development activities.					
<b>Accomplishments/Planned Programs Subtotals</b>	20.752	29.359	30.277	0.000	30.277

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 34/0603160BR/RG: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	233.769	266.262	246.951	0.000	246.951	253.002	258.835	262.652	258.335	Continuing	Continuing
<b>Remarks</b>											

**D. Acquisition Strategy**  
 Competitive selection of most appropriate performers to fulfill science and technology development needs.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>				<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RR: <i>CWMD Test and Evaluation</i>	129.714	18.426	18.311	23.120	0.000	23.120	23.771	23.973	24.699	23.546	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Countering WMD Test and Evaluation project provides a unique national test capability for simulated WMD facilities and processes. This capability provides structured and systematic end-to-end test event planning, preparation, management, execution, and data analysis. It also offers test instrumentation (data acquisition systems and optics), scientific analysis and predictions, test article construction, test article/test bed remediation, tunnel mining, architectural and engineering design, systems engineering and integration, and test data management. The project leverages 50 years of expertise in investigating weapons effects and target response across the spectrum of hostile environments that could be created by proliferate nations or terrorist organizations with access to advanced conventional weapons or WMD. Subject matter experts design full and sub-scale testing strategies focusing on weapon-target interaction with fixed soft and hardened facilities to include above ground facilities, cut-and-cover facilities, and deep underground tunnels. This capability does not exist anywhere else within the DoD and supports the counterproliferation pillar of the National Strategy to Counter WMD.

**B. Accomplishments/Planned Programs (\$ in Millions)**

**Title:** RR: Countering WMD Test and Evaluation

**Description:** Project RR provides a unique national test bed capability for the study of weapon-target interaction, simulated WMD facility characterization and defeat testing, and evaluation of asymmetric threats observed in theater, to evaluate the implications of WMD and other special weapon use against U.S. military and civilian assets. Additionally, Project RR develops instrumentation and identifies unique threat signatures that can support early detection and development of countermeasures to support Combatant Command needs.

**FY 2022 Plans:**

- Continue to modernize and evolve instrumentation and diagnostics capability to support test and evaluation activities across the WMD spectrum, as well as develop new methods to address the evolving threats
- Replicate, test, and evaluate identified threat WMD systems and use tactics, techniques, and procedures to support the development of WMD detection, characterization, and countermeasures documented in CCMD requirements.
- Perform threat-relevant test and evaluation activities to document unique signatures that identify, characterize, and determine the effectiveness of defeat techniques for WMD proliferation and production facilities, leveraging the Nevada National Security Site, as well as a novel transportable capability that can replicate specific threats of interest to the CCMDs.

<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
18.426	18.311	23.120	0.000	23.120

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>
--	--	--

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<ul style="list-style-type: none"> <li>- Design and build testbeds in small-, mid-, and large-scale environments capable of capturing data needed to improve and validate high-fidelity modeling and simulation tools used to predict US weapon and adversary threat effects on facilities of interest.</li> <li>- Employ the capability developed in FY2021 to support the characterization and evaluation of observed automated and autonomous threat systems with WMD elements, and demonstrate progress in the development of algorithms to support the early detection and countermeasures development.</li> <li>- Complete the development of the data architecture, transportable data collection system, and portals to enable data acquisition for all DTRA research and development activities, and the interagency sharing of data at multiple classification levels.</li> <li>- Demonstrate advancement in data analysis techniques, data analytics, and signature-based algorithms to support the development of deliverable tools to the combatant commands.</li> </ul> <p><b><i>FY 2023 Base Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Modernize and evolve instrumentation and diagnostics capability to support test and evaluation activities across the CWMD spectrum, as well as develop new methods to address the evolving threats.</li> <li>- Remediate and restore existing test bed articles to continue support across the CWMD spectrum.</li> <li>- Replicate, test, and evaluate identified threat WMD systems and use tactics, techniques, and procedures to support the development of WMD detection, characterization, and countermeasures documented in CCMD requirements.</li> <li>- Perform threat-relevant test and evaluation activities to document unique signatures that identify, characterize, and determine the effectiveness of defeat techniques for WMD proliferation and production facilities, leveraging the Nevada National Security Site, as well as a novel transportable capability that can replicate specific threats of interest to the CCMDs.</li> <li>- Design and build testbeds in small-, mid-, and large-scale environments capable of capturing data needed to improve and validate high-fidelity modeling and simulation tools used to predict US weapon and adversary threat effects on facilities of interest.</li> <li>- Maintain ability to execute RDT&amp;E testing at Kirtland AFB, the White Sands Missile Range (WSMR), and the Nevada National Security Site.</li> </ul> <p><b><i>FY 2023 OCO Plans:</i></b> N/A</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b></p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>Counter Weapons of Mass Destruction Applied Research</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
The increase from FY 2022 to FY 2023 funds necessary upgrades to national test bed capabilities in support of countering WMD test and evaluation activities and environmental compliance.					
<b>Accomplishments/Planned Programs Subtotals</b>	18.426	18.311	23.120	0.000	23.120

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	0.010	4.523	9.530	0.000	9.530	10.170	10.063	10.150	7.557	Continuing	Continuing
<b>Remarks</b>											

**D. Acquisition Strategy**  
Competitive selection of most appropriate performers to fulfill science and technology development needs.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603134BR / <i>Counter Improvised-Threat Simulation</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	86.542	3.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	90.403
JC: <i>Enable Rapid Capability Delivery</i>	86.542	3.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	90.403

**A. Mission Description and Budget Item Justification**

The Defense Threat Reduction Agency (DTRA) Counter Improvised-Threat Simulation program element funds the assessment, analysis, experimentation, evaluation, and testing of systems to counter asymmetric threats to determine feasibility for prototyping, spiral development, Program of Record investment and potential for immediate fielding.

Understanding asymmetric threats is the driving force behind DTRA's deliberate, structured, and proactive approach to understanding, anticipating, illuminating, isolating, and/or mitigating threats through identified needs. DTRA is working to bring concepts and theories forward to assist and hasten the development of subsystems and components along with integration into prototypes for field experiments and/or laboratory tests.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2021</u></b>	<b><u>FY 2022</u></b>	<b><u>FY 2023 Base</u></b>	<b><u>FY 2023 OCO</u></b>	<b><u>FY 2023 Total</u></b>
Previous President's Budget	3.861	0.000	0.000	0.000	0.000
Current President's Budget	3.861	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

There is no change from the previous President's Budget.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603134BR / Counter Improvised-Threat Simulation	<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JC: Enable Rapid Capability Delivery	86.542	3.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	90.403
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

This project is driven by current and projected threat activities. It enables the timely validation, resourcing, applied research and prototype development and delivery to counter threats that continue to impact US forces. The project supports the evaluation of integrated technologies or prototype systems in a realistic environment to counter asymmetric threats.

DTRA performs experiments and modeling and simulations in the pursuit of advanced technology development. The outcomes of these experiments are incorporated into new or existing prototypes to enhance system performance while reducing cost.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> JC: Enable Rapid Capability Delivery	3.861	0.000	0.000	0.000	0.000
<b>Description:</b> This project employs technology development, modeling-and-simulation, and analysis support tools to meet Combatant Command requirements and anticipated threats. DTRA provides timely acquisition and delivery of solutions that respond to asymmetric threat requirements and gaps.					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> N/A					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	3.861	0.000	0.000	0.000	0.000



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022	
<b>Appropriation/Budget Activity</b> 0400 / 3				<b>R-1 Program Element (Number/Name)</b> PE 0603134BR / Counter Improvised-Threat Simulation				<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery			

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	Total Cost
			Base	OCO	Total					Complete	
• 13/0602134BR/JC: Improvised Threat Reduction Applied Research	1.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500
• 98/0604134BR/JC: Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	11.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.841

**Remarks**

**D. Acquisition Strategy**

Competitive selection to determine the optimal performer who can produce a viable deliverable within schedule and budget constraints.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	696.649	331.325	409.862	395.721	0.000	395.721	407.669	417.369	419.816	414.431	Continuing	Continuing
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	148.257	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
RD: <i>Nuclear Technologies and Capabilities Development</i>	148.546	46.587	54.417	60.249	0.000	60.249	59.722	61.765	62.800	63.855	Continuing	Continuing
RG: <i>Counter WMD Technologies and Capabilities Development</i>	399.686	233.769	266.262	246.951	0.000	246.951	253.002	258.835	262.652	258.335	Continuing	Continuing
RR: <i>CWMD Test and Evaluation</i>	0.160	0.010	4.523	9.530	0.000	9.530	10.170	10.063	10.150	7.557	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Advanced Technology Development portfolio is aligned with National and DoD strategic objectives as well as with Science and Technology (S&T) investment direction established annually by the Defense Threat Reduction Agency (DTRA). The objectives directly support policy and planning guidance from the Executive Office of the President, the Department of Defense (DoD), and the broader Weapons of Mass Destruction (WMD) threat reduction community.

The portfolio advances the Countering WMD (CWMD) mission by selecting advanced technology development initiatives that meet the following criteria: (1) efforts are clearly defined and directly linked to mission-specific capability requirements of DTRA, the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners; (2) preliminary assessments of subsystems and components offer the highest potential for technological feasibility, operability, and producibility upon transition out of S&T research; (3) activities demonstrate cost effectiveness or cost reduction potential of technologies during field testing or simulation at scale.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>
---	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	356.659	399.362	0.000	0.000	0.000
Current President's Budget	331.325	409.862	395.721	0.000	395.721
Total Adjustments	-25.334	10.500	395.721	0.000	395.721
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-16.465	-			
• SBIR/STTR Transfer	-8.869	-			
• Adjustments to Budget Year	-	-	395.721	0.000	395.721

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** RD: *Nuclear Technologies and Capabilities Development*

Congressional Add: *Data-Driven Methods of Nuclear Weapon Discovery*

Congressional Add Subtotals for Project: RD

**Project:** RG: *Counter WMD Technologies and Capabilities Development*

Congressional Add: *Strategic Systems Defeat (SSD)*

Congressional Add: *Detection and Tracking Technology*

Congressional Add: *Reduced Order Models*

Congressional Add Subtotals for Project: RG

Congressional Add Totals for all Projects

	FY 2021	FY 2022
	0.000	4.000
Congressional Add Subtotals for Project: RD	0.000	4.000
	5.000	0.000
	0.000	4.000
Congressional Add Subtotals for Project: RG	5.000	6.500
Congressional Add Totals for all Projects	5.000	10.500

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding. In FY 2021, DTRA reprogrammed funding for higher Departmental priorities.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>				<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	148.257	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The CWMD Cross-Cutting Technical and Information Sciences project provides technical expertise through continuous reach-back and quick reaction support to the United States and its allies across the Countering Weapons of Mass Destruction (CWMD) mission space. The project performs continuous modeling of ad hoc computational analyses on the consequences of Weapons of Mass Destruction (WMD) in consultation with military and civilian planners, warfighters, and first responders, and leverages research performed by the Project on Advanced Systems and Concepts for CWMD at the Naval Postgraduate School. The project also supports international CWMD cooperation by developing technologies and concepts suitable for foreign release.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RA: CWMD Cross-Cutting Technical and Information Sciences	50.959	84.660	78.991	0.000	78.991
<b>Description:</b> Project RA develops modeling and simulation capabilities and provides technical reachback support to maintain and increase decision advantages for the United States and its allies through improved situational understanding across the complete CWMD mission space.					
<b>FY 2022 Plans:</b>					
- Conduct Research and Development to maintain DTRA's cutting edge 24/7 technical reach back assistance capability, decision support and planning support to Combatant Commands (CCMDs), Services, interagency and other government customers in support of immediate missions and operational environments.					
- Provide critical training support in CWMD-relevant models to strategic partner community.					
- Provide Quick Reaction Capability to urgent warfighter requirements based on new or emerging gaps.					
- Provide best-of-breed applied research from elsewhere in the portfolio to develop prototypes for fielding with unique strategic customers to meet requirements aligned with the current National Defense Strategy (NDS).					
- Apply Artificial Intelligence/Machine Learning (AI/ML) technology advances (from academia, industry, and other government organizations) to CWMD/ Counter Threat Network (CTN)-specific problem sets.					
- Provide CCMDs with operational prototypes of tools for CWMD data integration, analysis, and visualization.					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Develop and sustain advanced information technology capabilities enabling CWMD situational understanding and leverage advanced data science techniques to improve threat analysis to better inform operational planning.					
<b><i>FY 2023 Base Plans:</i></b>					
- Develop tools to improve CWMD situational awareness capabilities integration into Android/web based environments supporting the warfighter.					
- Provide 24/7 technical reachback assistance, decision support and planning support to CCMD, Service, interagency and other government customers to support immediate mission and operational environments.					
- Provide critical training support in CWMD-relevant models to over 500 strategic partner community students.					
- Anticipate responding to over 1250 requests for information/assistance with over 95% timeliness in responses.					
- Facilitate technical exchanges with partners in at least 14 countries, and with all geographic and functional CCMDs, to improve understanding of and refine requirements. Will conduct at least one CCMD technology demonstration event to showcase and deliver capability solutions to theater customers to meet critical CWMD requirements.					
- Leverage applied research from within the broader portfolio to develop prototypes for fielding and testing, then will transition them to partner organizations with unique strategic customers to meet requirements aligned with the current NDS.					
<b><i>FY 2023 OCO Plans:</i></b>					
N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b>					
The decrease from FY 2022 to FY 2023 is due primarily to the net impact of 1) increased investment in Hazardous Prediction and Assessment Capabilities (HPAC) and 2) the realignment of resources from quick reaction capabilities to fund higher Agency priorities.					
<b>Accomplishments/Planned Programs Subtotals</b>	50.959	84.660	78.991	0.000	78.991

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• 13/0602134BR: <i>Improvised Threat Reduction Applied Research</i>	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / Counter Weapons of Mass Destruction Advanced Technology Development	<b>Project (Number/Name)</b> RA / CWMD Cross-Cutting Technical and Information Sciences

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	
			Base	OCO	Total					Complete	Total Cost
• 25/0602718BR: Counter Weapons of Mass Destruction Applied Research	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing
• 98/0604134BR: Counter Improvised- Threat Technology Demonstration, Prototype Development and Testing	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
• 105/0604551BR: Catapult	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing
• 159/0605502BR: Small Business Innovation Research	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Assessment and selection of best performer for developmental requirements to meet specific military capability needs.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>					<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RD: <i>Nuclear Technologies and Capabilities Development</i>	148.546	46.587	54.417	60.249	0.000	60.249	59.722	61.765	62.800	63.855	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Research, development, test, and evaluation (RDT&E) to identify, develop, and exploit signatures associated with nuclear threats in support of U.S. capabilities that detect and interdict such threats; and locate, identify, and track special nuclear material and improve detection factors such as range, time, sensitivity, and accuracy to enhance Service and Special Mission Unit capabilities. These efforts support Department of Defense (DoD) requirements for countering terrorism, counter proliferation, nonproliferation, countering rogue states, and homeland defense.

RDT&E to systematically study signatures associated with adversary nuclear programs and nuclear detonations to gain knowledge or understanding necessary to: determine technical capabilities needed to improve DoD contingency planning activities; improve DoD situational awareness on the nuclear battlefield; and improve capabilities to attribute the source of a nuclear detonation.

Research and develop innovative technologies for the protection of mission-essential personnel, critical military and national defense capabilities, and associated control and support systems during a nuclear event. Research under this project supports the mission critical systems identified under DoD Instruction 3150.09, Chemical, Biological, Radiological, and Nuclear Survivability Policy. System vulnerability research develops nuclear assessment capabilities to support operational planning, weapons effects predictions, and strategic system design. This activity also provides the DoD's nuclear design and protection standards for new and existing systems, e.g., command and control facilities and aircraft. Key systems include the Nuclear Command and Control System, the net-centric thin-line, and both military and civilian satellites and associated support systems. Experimental capabilities research provides the warfighter with unique x-ray, gamma ray, and electromagnetic pulse (EMP) test capabilities in support of system survivability development, certification, and sustainment. These efforts also support international collaboration, user groups, case study reviews, and the Joint Atomic Information Exchange Group. The human survivability effort conducts research to develop and validate mortality and morbidity models associated with radiological and nuclear weapon effects.

Research and development modeling tools to support military operational planning, weapons effects predictions, and strategic system design decisions; consolidate validated modeling tools for integrated functionality; predict system responses to nuclear and radiological weapons producing electromagnetic, thermal, blast, shock, and radiation environments; provide detailed adversary nuclear infrastructure characterization to enhance counterforce operations and hazard effects; and, develop foreign nuclear weapon outputs.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RD: Nuclear Technologies and Capabilities Development	46.587	50.417	60.249	0.000	60.249



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p><b>Description:</b> Project RD develops, integrates and transitions radiation detection technologies, as well as systems, tools, techniques, and procedures that take advantage of non-radiation based signatures, in order to advance warfighter capabilities to rapidly detect, localize, characterize, and interdict nuclear and radiological threats.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop Synthetic Aperture Radar (SAR) Sensor Characterization Device capability, data analysis and algorithm development, and other Combatant Command countering nuclear threat network (CNTN) capabilities.</li> <li>- Support the design and operation of at least four DoD nuclear wargames and exercises with subject matter expertise, existing tools, and integrated initial MINES software capabilities.</li> <li>- Test and evaluate the Integration of improved contamination identification and avoidance capabilities into Service sensor networks and command and control systems.</li> <li>- Provide prototype electromagnetic pulse (EMP) sensor(s) for use on the battlefield enabling warfighter situational awareness of EMP effects.</li> <li>- Conduct technical demonstration of integrated sensor network capable of detecting, identifying and providing early warning of radiological hazards.</li> <li>- Develop and test prototype test articles for the integration of the Vehicle Integrated Platform Enhanced Radiac (VIPER) into Army Combat vehicles (Army Multipurpose Vehicle Platform).</li> <li>- Develop prototype Vehicle Integrated Platform Enhanced Radiac for aviation platforms.</li> <li>- Demonstrate tools that predict nuclear weapons effects on petroleum and transportation networks, improving nuclear planning and targeting decisions.</li> <li>- Demonstrate improved tool to predict non-ideal nuclear weapons airblast effects on ground maneuver forces, improving operational planning for conventional and nuclear battlefield.</li> <li>- Enhance cloud platform for integrated toolsets for nuclear planning, Nuclear, Chemical, Biological, Radiological, and high Explosive (NCBRE) assessments, and advanced analytics in support of Service and Combatant Command planning and assessments and Conventional Nuclear Integration situational awareness.</li> <li>- Support the DoD Atomic Veteran program by determining radiation exposure levels and managing the Atomic Veterans Service Certificate recognition.</li> <li>- Perform nuclear survivability modeling for effects on humans.</li> </ul> <p><b>FY 2023 Base Plans:</b></p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<ul style="list-style-type: none"> <li>- Provide USSTRATCOM with Nuclear Capability Services (NuCS) integration of five improved Enhanced Consequence Analysis (ECA) models.</li> <li>- Deliver improved nuclear weapons environment model that accounts for nuclear fire ignition in thick fuels.</li> <li>- Conduct test at the Large Blast Thermal Simulator (LBTS) to quantify combined air blast and thermal effects.</li> <li>- Deliver improved nuclear weapons environment models that reduces uncertainty from nuclear ground shock.</li> <li>- Deliver ECA logistics and petroleum transmission models that account for impacts of significant nuclear weapons environments.</li> <li>- Begin standard development for Military Standard (MIL-STD) for DOD Battlefield Systems.</li> <li>- Publish updated nuclear survivability standards for Military Handbook (MIL-HDBK), Surface Vessels.</li> <li>- Develop nuclear survivability (NS) standards for MIL-STDs and MIL-HDBK for Space and Missiles; prepare final coordination of MIL-STD 3053; conduct initial MIL-STD 3054 revision coordination.</li> <li>- Conduct EMP Technology and Vulnerability Assessments for VC-25B, Ground-Based Strategic Deterrent (GBSD - Minuteman replacement), and FFG-62 support</li> <li>- Demonstrate platform agnostic sensors networked within military command systems; integrate edge data processing for radiological-nuclear (RN) assessments across all echelons; provide prototype 3D mapping capability for the Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV).</li> </ul> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase from FY 2022 to FY 2023 is primarily for increased investment in nuclear survivability with resources realigned from RG-Advanced Energetics. This increase funds new Combatant Command Electromagnetic Pulse (EMP) testing requirements for various battlefield systems, surface vessels, and aircraft.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	46.587	50.417	60.249	0.000	60.249

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Data-Driven Methods of Nuclear Weapon Discovery	0.000	4.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

	<b>FY 2021</b>	<b>FY 2022</b>
<b>FY 2021 Accomplishments:</b> N/A		
<b>FY 2022 Plans:</b> Develop tool to derive nuclear weapons-to-critical-infrastructure coupling parameters from data-driven sources to improve operational planning for conventional and nuclear battlefield activities.		
<b>Congressional Adds Subtotals</b>	0.000	4.000

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 25/0602718BR/RD: <i>Counter Weapons of Mass Destruction Applied Research</i>	83.538	101.229	106.095	0.000	106.095	110.854	112.082	114.321	111.359	Continuing	Continuing
• 129/0605000BR/RD: <i>Counter Weapons of Mass Destruction Systems Development</i>	15.250	14.063	14.403	0.000	14.403	13.414	13.381	13.649	13.922	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Assessment and selection of best performer for developmental requirements to meet specific military capability needs.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
RG: <i>Counter WMD Technologies and Capabilities Development</i>	399.686	233.769	266.262	246.951	0.000	246.951	253.002	258.835	262.652	258.335	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Counter WMD Technologies and Capabilities Development encompasses the following areas.

Defeat Technologies researches, develops, integrates, demonstrates, and transitions innovative kinetic and non-kinetic weapon capabilities to expand traditional and asymmetric options available to Combatant Commanders to deny, disrupt, and defeat Weapons of Mass Destruction (WMD) while minimizing collateral effects.

Technology development focuses on the physical or functional defeat of (1) chemical, biological, nuclear, and radiological threat materials, (2) an adversary's ability to deliver the same, as well as (3) the physical and non-physical support networks enabling both. This program achieves these goals through the systematic identification and maturation of technologies capable of defeating WMD agents or agent-based processes, then integrating them into weapons, delivery systems, or rapid WMD elimination capabilities. This effort includes developing specific WMD agent/agent-based process simulants, test infrastructure, and sampling capability required for effective development, testing, and evaluation of next generation capabilities to ensure optimum weapon solutions are achieved. Requirements are delineated in Agency Priority Lists for lethal and non-lethal Countering WMD (CWMD) capability. Based on specified requirements, weapons and capabilities are transitioned to a Service program of record for system acquisition.

Counter emergent threat technologies research develops and transitions a full spectrum of new technologies to counter emergent WMD threats. This research supports the U.S. Special Operations Command (USSOCOM) in two areas: (1) counter proliferation research is a collaborative effort to develop advanced, warfighter-unique technologies to defeat WMD development and acquisition pathways, to include defeat of the devices themselves, while minimizing risks to U.S. forces; and (2) counter violent extremist organization concepts and technologies to integrate and synchronize activities that prevent violent extremist organizations and rogue nation states from developing, acquiring, proliferating, or using WMD. This effort supports Commander, USSOCOM responsibilities under the Chairman, Joint Chiefs of Staff Unified Command Plan.

Counterforce technologies research develops, integrates, demonstrates, and transitions capabilities to find, characterize, assess, and plan for the defeat of WMD threats. This research is focused in three areas: (1) WMD battlespace awareness provides warfighters with tools to find, characterize, and assess WMD threats; (2) weapons effects research provides modernized, fast-running, validated CWMD planning tools and integrates modeling and simulation software to optimize the execution of WMD and associated hard target defeat operations; and (3) innovative engineering of select promising technologies discovered under fundamental and basic research to increase the effectiveness of weapons against blast doors and other underground structures for functional defeat of Underground Facilities (UGFs), WMD, and their delivery systems.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>
--	---	---

DTRA provides a unique national test bed capability for simulated weapons of mass destruction (WMD) facility characterization, weapon-target interaction, and WMD facility defeat testing. This test bed is capable of responding to operational needs outside of DTRA’s research portfolio and is used by the DoD, Military Services, Combatant Commanders, and other Federal Agencies to evaluate the implications of WMD, conventional weapons, and other special weapons used against U.S. military or civilian systems and targets.

Target assessment technologies research develops, integrates, tests, demonstrates, and transitions processes and technologies providing advanced capabilities in the areas of WMD target assessment, automated advanced targeting development (A2TD), facility defeat, and full dimensional defeat. This research develops analytical tools and processes required to: (1) find and characterize WMD targets and associated hard and deeply buried targets (HDBTs); and (2) assess the results of physical and functional defeat mechanisms (such as direct attack). The A2TD initiative seeks to apply emerging computer assisted technologies to automate target characterization for hard targets and WMD targets. The end result will be faster and more efficient characterization of important hard targets and WMD targets. The facility defeat project develops, validates, and employs processes and software for characterization and defeat of command specified hard targets in conjunction with Defense Intelligence Agency (DIA) analysis. The full dimensional defeat project aims to develop an enterprise capability for finding and identifying a facility, characterizing its function and physical layout, determining current or future vulnerabilities to available defeat mechanisms, planning and executing an attack, assessing damage, and denying reconstitution efforts. The dynamic capabilities encompassed in this effort provide Combatant Commands (CCMDs) and the intelligence community tools and processes needed to hold at risk high value hard targets and WMD targets possessed by adversaries.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p><b>Title:</b> RG: Counter WMD Technologies and Capabilities Development</p> <p><b>Description:</b> Project RG develops advanced technologies and weapon concepts and validates their applicability to CWMD.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop and transition next generation agent defeat capabilities utilizing enhanced energetics, advanced manufacturing techniques and tactics that improve performance and lethality and reduce production time and cost.</li> <li>- Program, plan, and manage Explosive Ordnance Disposal (EOD) diagnostics and defeat projects and deliver technologies.</li> <li>- Program, plan, and manage low-visibility and breaching projects and deliver technologies.</li> <li>- Provide capability to rapidly support technical requirements through RDT&amp;E of current and emerging WMD threats to operational forces.</li> <li>- Conduct research and development of dual-use threat components for test and evaluation in support of CCMDs, network disruption capability, and RDT&amp;E of current and emerging WMD threats to operational force.</li> </ul>	228.769	259.762	246.951	0.000	246.951

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Develop quick reaction capabilities (QRCs) in support of geographic Combatant Commands (CCMD) and in collaboration with Other Governmental Agencies (OGA) to detect, locate, track, characterize and counter threats in the areas of counter proliferation (CP) and counter weapons of mass destruction (CWMD).</p> <p><b>FY 2023 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Improve Integrated Munitions Effects Assessment (IMEA) capability by integrating data model for more accurate modeling of buildings, bunkers, and tunnels used for storage of WMD.</li> <li>- Develop application interfaces for core IMEA functionality to interface with other targeting tools (e.g. Joint Targeting Toolbox (JTT), Digital Image Exploitation Engine (DIEE)), and intelligence databases (Modernized Intelligence Database (MIDB) and Machine-Assisted Analysis Rapid-Repository System (MARS))</li> <li>- Initiate development of new tools to auto-generate customizable briefing materials for visualization to support target validation authority and CCMD's intent.</li> <li>- Complete modularization of IMEA code and move to cloud computing/storage, multi-platform user environment support, full spectrum module archival/transition.</li> <li>- Complete IMEA capability to model cityscapes for target characterization.</li> <li>- Deliver Auto-Weaponing System (AWeS) guided weaponing tool utilizing neural networks for integration and distribution through IMEA.</li> <li>- Integrate Multi-Hit on multiple aim points for bunkers and tunnel solution recommendations into IMEA.</li> <li>- Conduct research and development to integrate sensor feeds directly to the Targeting Weaponing Assistance Cell (TWAC) software for neural network analysis.</li> <li>- Deliver TWAC targeting recommendation packages and conduct training activities as requested by Combatant Commands</li> <li>- Provide TWAC systems engineering and integration support for both internal DTRA and external organizations with efforts related to CWMD and Hardened and Deeply Buried Targets (HDBT).</li> <li>- Support Combatant Commands with CWMD targeting and operational planning activities while identifying warfighting capability gaps.</li> <li>- Develop and test small unmanned aerial systems (UAS) for autonomous technical reconnaissance of a WMD target in denied area.</li> <li>- Demonstrate next-generation sensor for radio-nuclide (RD) data collection in collaboration with the Department of Energy.</li> <li>- Develop offensive counter-proliferation, counter-WMD technologies in support of Combatant Command requirements.</li> </ul>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<ul style="list-style-type: none"> <li>- Develop WMD pathway defeat technologies, as well as threat-specific test articles and analyses.</li> <li>- Develop lighter, smaller, more effective breaching capabilities.</li> <li>- Develop and test structural, reactive materials and advanced agent defeat concepts to improve the capability to defeat and/or neutralize WMD-related targets.</li> </ul> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease from FY 2022 to FY 2023 is primarily due to decreased investment in counterterrorism activities in this project. Resources were realigned to higher priority efforts, including Nuclear Survivability in Project RD to meet new Combatant Command requirements for Electromagnetic Pulse (EMP) testing for various battlefield systems, surface vessels, and aircraft. Additionally, resources were realigned to DTRA's Operation and Maintenance account to fund Combatant Command requirements for threat analysis.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	228.769	259.762	246.951	0.000	246.951

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> Strategic Systems Defeat (SSD)</p> <p><b>FY 2021 Accomplishments:</b> - Design, develop, test, and deliver five Hand Emplaced Form Factor (HEFF) sensors that can perform a classified Combatant Command mission identified in an approved and validated Joint Staff Joint Emergent Operational Needs Statement (JEON) for a Combatant Command as well as a new, emergent classified requirement from a second Combatant Command.</p> <p>- Design, develop, and assess "brassboard" prototyping efforts for next-gen SSD sensing capabilities leveraging DARPA developed technologies, and for participation in Missile Defense Agency's Left-Through-Right-of-Launch (LTRI) wargame campaign.</p> <p><b>FY 2022 Plans:</b> N/A</p>	5.000	0.000
<p><b>Congressional Add:</b> Detection and Tracking Technology</p> <p><b>FY 2021 Accomplishments:</b> N/A</p> <p><b>FY 2022 Plans:</b> - Develop a taggant system to track WMD items of interest through covert means.</p>	0.000	4.000
<p><b>Congressional Add:</b> Reduced Order Models</p>	0.000	2.500

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RG / <i>Counter WMD Technologies and Capabilities Development</i>

	<b>FY 2021</b>	<b>FY 2022</b>
<b>FY 2021 Accomplishments:</b> N/A		
<b>FY 2022 Plans:</b> - Develop and implement methodologies for Model Order Reduction (MOR) using data-driven (machine learning) Reduced Order Model (ROM) techniques on legacy code data, observation data, and first principles code simulation data.		
<b>Congressional Adds Subtotals</b>	5.000	6.500

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>			<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 25/0602718BR/RG: <i>Counter Weapons of Mass Destruction Applied Research</i>	20.752	29.359	30.277	0.000	30.277	30.871	31.589	32.220	31.788	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Assessment and selection of best performer for developmental requirements to meet specific military capability needs.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / Counter Weapons of Mass Destruction Advanced Technology Development					<b>Project (Number/Name)</b> RR / CWMD Test and Evaluation		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RR: CWMD Test and Evaluation	0.160	0.010	4.523	9.530	0.000	9.530	10.170	10.063	10.150	7.557	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Countering WMD Test and Evaluation project provides a unique national test capability for simulated WMD facilities and processes. This capability provides structured and systematic end-to-end test event planning, preparation, management, execution, and data analysis. It also offers test instrumentation (data acquisition systems and optics), scientific analysis and predictions, test article construction, test article/test bed remediation, tunnel mining, architectural and engineering design, systems engineering and integration, and test data management. The project leverages 50 years of expertise in investigating weapons effects and target response across the spectrum of hostile environments that could be created by proliferant nations or terrorist organizations with access to advanced conventional weapons or WMD. Subject matter experts design full and sub-scale testing strategies focusing on weapon-target interaction with fixed soft and hardened facilities to include above ground facilities, cut-and-cover facilities, and deep underground tunnels. This capability does not exist anywhere else within the DoD and supports the counter proliferation pillar of the National Strategy to Counter WMD.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RR: CWMD Test and Evaluation	0.010	4.523	9.530	0.000	9.530
<b>Description:</b> This project employs technology development, modeling-and-simulation, and analysis support tools to meet Combatant Command requirements and anticipated threats. DTRA provides timely acquisition and delivery of solutions that respond to asymmetric threat requirements and gaps.					
<b>FY 2022 Plans:</b> -Conduct two test events that incorporate WMD threats on unmanned systems across multiple domains (land, air, sea) that further incorporate automated and autonomous capabilities. - Document unique signatures of threat of unmanned systems operating at different levels of automation and autonomy and make available through DTRA's data architecture system to the broader USG community. - Integrate algorithms developed in FY 2021 to develop a multi-phenomenology-based tool deliverable to a Combatant Command (CCMD) as a means for future development of early detection and countermeasures for specific threats in their AOR.					
<b>FY 2023 Base Plans:</b> - Provide end-to-end test event planning, management, execution, and analysis supporting DoD, federal agencies', and friendly nations' programs to counter proliferation and defeat WMD.					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
- Provide test articles, bunker and building construction, data acquisition systems, test optics, and data analysis. - Conduct test events, in conjunction with Combatant Commands and Services, that incorporate WMD threats on unmanned systems across multiple domains (land, air, and sea) that further incorporate automated and autonomous capabilities. - Document unique signatures of threat of unmanned systems operating at different levels of automation and autonomy and make available through DTRA's data architecture system to the broader USG community. - Conduct testing to understand blast propagation and associated wall damage from an internal explosion; develop simplified internal detonation and dispersion model for blast propagation through failing walls; update/validate blast propagation models in Integrated Munitions Effects Assessment (IMEA) and Vulnerability Assessment and Protection Option (VAPO). - Develop/validate models for blast propagation through failing walls (both light and heavy walls) for standard US inventory-sized weapons (500#, 1000#, 2000# GBU); understand the blast and fragment environment in adjacent room for equipment damage estimates.					
<b><i>FY 2023 OCO Plans:</i></b> N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase from FY 2022 to FY 2023 funds 1) data architecture signatures technology for tracking of special nuclear materials, and 2) necessary upgrades to national test bed capabilities in support of DTRA's countering WMD test and evaluation activities with resources realigned from Project RA - CWMD Cross-Cutting Technical and Information Sciences in PE 0602718BR.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.010	4.523	9.530	0.000	9.530

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 25/0602718BR: <i>Counter Weapons of Mass Destruction Applied Research</i>	18.426	18.311	23.120	0.000	23.120	23.771	23.973	24.699	23.546	Continuing	Continuing

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>

**D. Acquisition Strategy**  
N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603176BR / <i>Advanced Concepts and Performance Assessment</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	6.505	0.000	6.505	6.125	5.887	5.792	5.641	Continuing	Continuing
RR: <i>CWMD Test and Evaluation</i>	0.000	0.000	0.000	6.505	0.000	6.505	6.125	5.887	5.792	5.641	Continuing	Continuing

**Note**

On November 9, 2020, the Deputy Secretary of Defense directed the programmatic transfer of the National Assessment Group (NAG) from Office of the Under Secretary of Defense for Acquisition & Sustainment (OUSD(A&S)) to DTRA, previously budgeted under Program Element (PE) 0604942D8Z, to DTRA for a better alignment of similar missions. The RDT&E funding is captured under this new PE 0603176BR, Budget Activity (BA) 03. This new PE represents an administrative transfer of an ongoing effort, not a new start.

**A. Mission Description and Budget Item Justification**

The NAG conducts rapid, secure, and independent assessments of critical and unique technologies to support the Military Services, other government agencies, and DTRA. This rapid assessment group provides independent assessments of critical and unique technologies and capabilities for customers in the areas of counter WMD and emerging threats. The NAG provides an independent review/analysis and reporting of operational assessments, capability demonstrations, and test events.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	6.505	0.000	6.505
Total Adjustments	0.000	0.000	6.505	0.000	6.505
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Functional Transfer (NAG)	-	-	6.505	0.000	6.505

**Change Summary Explanation**

The increase from the FY 2022 President's Budget is due to the functional transfer of the National Assessment Group (NAG) from Office of the Under Secretary of Defense for Acquisition & Sustainment (OUSD(A&S)) to DTRA.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603176BR / <i>Advanced Concepts and Performance Assessment</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
RR: <i>CWMD Test and Evaluation</i>	0.000	0.000	0.000	6.505	0.000	6.505	6.125	5.887	5.792	5.641	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

On November 9, 2020, the Deputy Secretary of Defense directed the programmatic transfer of the National Assessment Group (NAG) from Office of the Under Secretary of Defense for Acquisition & Sustainment (OUSD(A&S)) to DTRA, previously budgeted under Program Element (PE) 0604942D8Z, to DTRA for a better alignment of similar missions. The RDT&E funding is captured under this new PE 0603176BR, Budget Activity (BA) 03. This new PE represents an administrative transfer of an ongoing effort, not a new start.

**A. Mission Description and Budget Item Justification**

This project conducts rapid, secure, and independent assessments of critical and unique technologies to support the Military Services, other government agencies, and DTRA.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> Project RR: CWMD Test and Evaluation	0.000	0.000	6.505	0.000	6.505
<b>Description:</b> Project RR conducts independent assessments, analyses, reviews, capability demonstrations and test events conducted by the NAG.					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> <ul style="list-style-type: none"> <li>• Conduct short/no notice unique technical assessments in support of DoD efforts to detect, deter, and defeat (D3) WMD threats.</li> <li>• Conduct threat replication testing using capabilities that support the DoD D3 mission.</li> <li>• Mission analysis will continue as this new program pivots full support to the Counter WMD mission space.</li> </ul>					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603176BR / <i>Advanced Concepts and Performance Assessment</i>	<b>Project (Number/Name)</b> RR / <i>CWMD Test and Evaluation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
The increase from FY 2022 is due to the functional transfer of the National Assessment Group (NAG) from Office of the Under Secretary of Defense for Acquisition & Sustainment (OUSD(A&S)) to DTRA.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	6.505	0.000	6.505

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 25/0602718BR: <i>Counter Weapons of Mass Destruction Applied Research</i>	18.426	18.311	23.120	0.000	23.120	23.771	23.973	24.699	23.546	Continuing	Continuing
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	0.010	4.523	9.530	0.000	9.530	10.170	10.063	10.150	7.557	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	409.393	19.931	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	429.324
JC: <i>Enable Rapid Capability Delivery</i>	380.093	11.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	391.584
JS: <i>Assist Situational Understanding</i>	29.300	1.607	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.907
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	0.000	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833

**A. Mission Description and Budget Item Justification**

This program element supports the development, demonstration, and testing of technologies to advance the analytical infrastructure, methods, and tools to enhance asymmetric countermeasure solutions. Advancements in analytics include the production of tools that leverage machine learning and artificial intelligence, increasing our ability to expedite the understanding of emerging threats and accompanying activities. This investment also enables development and delivery of capabilities to understand, anticipate, illuminate, isolate, and/or mitigate asymmetric threats and their effects.

DTRA expedites technology transition from the laboratory to operational use to reduce risk within the acquisition process. This is done by evaluating integrated technologies or prototype systems in a high quality and realistic operating environment.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	19.931	0.000	0.000	0.000	0.000
Current President's Budget	19.931	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

There is no change from the previous President's Budget.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
JC: Enable Rapid Capability Delivery	380.093	11.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	391.584
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DTRA delivers counter asymmetric threats materiel solutions in support of joint and combined forces, effectively addressing changes to threat tactics, techniques, and procedures (TTPs). DTRA responds to asymmetric threats identified by the forward deployed warfighter as well as academia and industry.

This project builds prototypes and tests and evaluates existing industry systems to meet Combatant Command capability gaps and emerging asymmetric threats. DTRA also provides solutions to prevent or mitigate battlefield operational surprise.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> JC: Enable Rapid Capability Delivery	11.491	0.000	0.000	0.000	0.000
<b>Description:</b> This project delivers materiel solutions to counter asymmetric threats in support of joint and combined forces supporting contingency operations, effectively addressing changes to threat tactics, techniques, and procedures (TTPs).					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> N/A					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	11.491	0.000	0.000	0.000	0.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	Total Cost
			Base	OCO	Total					Complete	
• 13/0602134BR/JC: <i>Improvised Threat Reduction Applied Research</i>	1.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.500
• 33/0603134BR/JC: <i>Counter Improvised-Threat Simulation</i>	3.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.861

**Remarks**

**D. Acquisition Strategy**

Assess and select best performer for developmental requirements to meet specific military capability needs. Performer base includes research developers across DoD and other Government agency laboratories, academia, and industry.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Anti-Armor IED (AAIED)	C/FFP	Battelle : Idaho Falls, ID	16.608	-		-		-		-		-	0.000	16.608	16.608
Booby Trapped Structures (BTS)	C/FFP	Shield AI : San Diego, CA	14.737	-		-		-		-		-	0.000	14.737	14.737
Buried IED	C/CPFF	Naval Research Lab : Washington, DC	9.852	-		-		-		-		-	0.000	9.852	9.852
Home-Made Explosives (HME)	C/CPFF	Manufacturing Techniques, Inc. (MTEQ) HQ : Lorton, VA	31.783	-		-		-		-		-	0.000	31.783	31.783
Network	C/FFP	John Hopkins : Baltimore, MD	44.959	-		-		-		-		-	0.000	44.959	44.959
Person-Born IED (PBIED)	C/FFP	MIT Lincoln Laboratory (MIT-LL) : Lexington, MA	19.456	-		-		-		-		-	0.000	19.456	19.456
Radio Controlled IED (RCIED)	C/CPFF	Rampart Technologies, Colorado Springs, CO : Sericore, Hanover, MD	3.515	-		-		-		-		-	0.000	3.515	3.515
RDT&E Technology Enablers	C/CPFF	Various : Various	54.776	-		-		-		-		-	0.000	54.776	54.776
Sensitive Integration Office (SIO) Programs	C/CPFF	Various : Various	43.771	-		-		-		-		-	0.000	43.771	43.771
Tunnel	C/FFP	ERDC: Vicksburg, MS : MIT Lincoln Labs: Boston, MA	10.208	-		-		-		-		-	0.000	10.208	10.208
Unmanned Aerial Systems (UAS)	C/FFP	Technology Service Corporation (TSC) Fairfax, VA : BAE Systems, Fridley, MN	33.647	-		-		-		-		-	0.000	33.647	33.647

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency</b>											<b>Date: April 2022</b>				
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing					<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery						

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Vehicle-Attached IED (VAIED)	C/CPFF	Various : TBD	2.770	-		-		-		-		-	0.000	2.770	2.770
Vehicle-Borne IED (VBIED)	C/CPFF	Naval Surface Warfare Center (NSWC) Dahlgren : King George County, VA	24.564	-		-		-		-		-	0.000	24.564	24.564
Water-Borne IED (WBIED)	C/FFP	Various : Various	5.027	-		-		-		-		-	0.000	5.027	5.027
Integrated Signatures Program (ISP)	MIPR	Indian Head Explosive Ordnance Technology Division : Indian Head, MD	-	4.000	Jul 2021	-		-		-		-	0.000	4.000	4.000
Split Aces 4.0	MIPR	Naval Air Systems Command PM263 : Patuxent River, MD	-	2.841	Jul 2021	-		-		-		-	0.000	2.841	2.841
Data Science for Emerging Threats	C/CPAF	Massachusetts Institute of Technology : Boston, MA	-	1.081	Jul 2021	-		-		-		-	0.000	1.081	1.081
Image Recognition Proof-of-Concept	SS/T&M	Carnegie Mellon University : Pittsburgh, PA	-	0.202	May 2021	-		-		-		-	0.000	0.202	0.202
<b>Subtotal</b>			315.673	8.124		-		-		-		-	0.000	323.797	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Advisory for Strategic and Emergent Technologies	C/CPAF	Mission Technology Reston : Reston, VA	-	0.367	Mar 2021	-		-		-		-	0.000	0.367	0.367
<b>Subtotal</b>			-	0.367		-		-		-		-	0.000	0.367	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation (T&E) 6.4	MIPR	Naval Air Weapons Station : China Lake, CA	36.519	-		-		-		-		-	0.000	36.519	36.519
T&E Threat Support 6.4	MIPR	Intelligence and Information Warfare Directorate (I2WD), Communications-Electronics Research, Development and Engineering Center (CERDEC) : Aberdeen Proving Ground, MD	21.939	-		-		-		-		-	0.000	21.939	21.939
C-sUAS Test & Evaluation	MIPR	Naval Air Warfare Center Weapons Division : China Lake, CA	4.720	3.000	Jul 2021	-		-		-		-	0.000	7.720	7.720
SETA Capability Research Architecture Cell (CRAC)	C/CPAF	Zel Technologies : Reston, VA	1.242	-		-		-		-		-	0.000	1.242	1.242
<b>Subtotal</b>			64.420	3.000		-		-		-		-	0.000	67.420	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		380.093	11.491	-	-	-	0.000	391.584	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> JC / Enable Rapid Capability Delivery

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Anti-Armor IED (AAIED)</b>																												
Explosive Form Projectile (EFP) Detect - High Resolution Electro-Optical Infrared Camera (HREIOR)																												
Explosive Form Projectile (EFP) Detect - Stalker																												
Explosive Form Projectile (EFP) Detect Spiral																												
Non-Linear Junction Tech																												
EFP Detection & Defeat																												
<b>Booby Trapped Structures (BTS)</b>																												
Iron Horse																												
<b>Buried IED</b>																												
Microwave Frequency Oscillator (MFO) - Mineroller																												
Spectral Polarmetric Instrument Data Analysis (SPIDA)																												
SPIDA Spiral (Automated Change Detection)																												
<b>Home-Made Explosives (HME)</b>																												
Mini Hyper Spectral Imaging Group 3																												
Standoff Portable Isotopic Neutron Spectroscopy (SPINS)																												
<b>Improvised Threat Device Replication</b>																												
T&E Threat Support																												
<b>Network</b>																												
Cobalt Doom																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Explosives attribution and exploitation (EA2)																												
Improved National Technical Means (NTM) Integration																												
North Wind																												
Sensitive Integration Office Programs																												
Tough Luck																												
ISP																												
<b>Person-Born IED (PBIED)</b>																												
Atomic Magnetometer																												
PBIED Sensor Integration (Tiger Paw)																												
<b>Radio Controlled IED (RCIED)</b>																												
Songbird (Whistler Spiral)																												
<b>RDT&amp;E Technology Enablers</b>																												
Technical Outreach BA 4																												
<b>Counter-small Unmanned Aerial Systems (C-sUAS)</b>																												
C-sUAS Test and Evaluation																												
GroundTaker																												
Microwave Frequency Oscillator (MFO) C-sUAS																												
Mobile C-sUAS Airborne Platform Suite (MCAPS) Spiral																												
Multi vs. Multi Airborne Dispersed																												
Multi vs. Multi Dismounted Deployed																												
Pike on Reaper																												



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Tech Exploitation Tech Red Device Coordination	
Split Aces 4.0	
<b>Test &amp; Eval</b>	
Test & Evaluation Support	
<b>Vehicle-Borne IED (VBIED)</b>	
Supernova Spiral	
<b>C-IED</b>	
Travel	
UK Joint Tech Development	
VBIED Detection Sensor Integration	
<b>Global Data Integration</b>	
Data Science for Emerging Threats	
Image Recognition Proof-of-Concept	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Anti-Armor IED (AAIED)</b>	
Explosive Form Projectile (EFP) Detect - High Resolution Electro-Optical Infrared Camera (HREIOR)	
Explosive Form Projectile (EFP) Detect - Stalker	
Explosive Form Projectile (EFP) Detect Spiral	
Non-Linear Junction Tech	

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
EFP Detection & Defeat																												
<b>Booby Trapped Structures (BTS)</b>																												
Iron Horse																												
<b>Buried IED</b>																												
Microwave Frequency Oscillator (MFO) - Mineroller																												
Spectral Polarimetric Instrument Data Analysis (SPIDA)																												
SPIDA Spiral (Automated Change Detection)																												
<b>Home-Made Explosives (HME)</b>																												
Mini Hyper Spectral Imaging Group 3																												
Standoff Portable Isotopic Neutron Spectroscopy (SPINS)																												
<b>Improvised Threat Device Replication</b>																												
T&E Threat Support																												
<b>Network</b>																												
Cobalt Doom																												
Explosives attribution and exploitation (EA2)																												
Improved National Technical Means (NTM) Integration																												
North Wind																												
Sensitive Integration Office Programs																												
Tough Luck																												
ISP																												
<b>Person-Born IED (PBIED)</b>																												
Atomic Magnetometer																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PBIED Sensor Integration (Tiger Paw)																												
<b>Radio Controlled IED (RCIED)</b>																												
Songbird (Whistler Spiral)																												
<b>RDT&amp;E Technology Enablers</b>																												
Technical Outreach BA 4																												
<b>Counter-small Unmanned Aerial Systems (C-sUAS)</b>																												
C-sUAS Test and Evaluation																												
GroundTaker																												
Microwave Frequency Oscillator (MFO) C-sUAS																												
Mobile C-sUAS Airborne Platform Suite (MCAPS) Spiral																												
Multi vs. Multi Airborne Dispersed																												
Multi vs. Multi Dismounted Deployed																												
Pike on Reaper																												
Tech Exploitation Tech Red Device Coordination																												
Split Aces 4.0																												
<b>Test &amp; Eval</b>																												
Test & Evaluation Support																												
<b>Vehicle-Borne IED (VBIED)</b>																												
Supernova Spiral																												
<b>C-IED</b>																												
Travel																												
UK Joint Tech Development																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

VBIED Detection Sensor Integration	
<b>Global Data Integration</b>	
Data Science for Emerging Threats	[REDACTED]
Image Recognition Proof-of-Concept	[REDACTED]

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Anti-Armor IED (AAIED)</b>				
Explosive Form Projectile (EFP) Detect - High Resolution Electro-Optical Infrared Camera (HREIOR)	1	2020	4	2020
Explosive Form Projectile (EFP) Detect - Stalker	1	2020	4	2020
Explosive Form Projectile (EFP) Detect Spiral	1	2020	4	2020
Non-Linear Junction Tech	1	2019	4	2020
EFP Detection & Defeat	1	2020	1	2020
<b>Booby Trapped Structures (BTS)</b>				
Iron Horse	3	2019	1	2020
<b>Buried IED</b>				
Microwave Frequency Oscillator (MFO) - Mineroller	1	2019	2	2020
Spectral Polarimetric Instrument Data Analysis (SPIDA)	1	2019	4	2020
SPIDA Spiral (Automated Change Detection)	3	2020	4	2020
<b>Home-Made Explosives (HME)</b>				
Mini Hyper Spectral Imaging Group 3	4	2018	4	2020
Standoff Portable Isotopic Neutron Spectroscopy (SPINS)	3	2019	2	2020
<b>Improvised Threat Device Replication</b>				
T&E Threat Support	1	2020	4	2020
<b>Network</b>				
Cobalt Doom	1	2018	4	2020
Explosives attribution and exploitation (EA2)	1	2019	4	2020
Improved National Technical Means (NTM) Integration	4	2019	4	2020

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
North Wind	4	2015	4	2020
Sensitive Integration Office Programs	1	2015	4	2020
Tough Luck	2	2014	4	2020
ISP	1	2021	4	2021
<b>Person-Born IED (PBIED)</b>				
Atomic Magnetometer	2	2019	3	2020
PBIED Sensor Integration (Tiger Paw)	1	2018	2	2020
<b>Radio Controlled IED (RCIED)</b>				
Songbird (Whistler Spiral)	1	2020	4	2020
<b>RDT&amp;E Technology Enablers</b>				
Technical Outreach BA 4	1	2016	4	2020
<b>Counter-small Unmanned Aerial Systems (C-sUAS)</b>				
C-sUAS Test and Evaluation	1	2019	4	2021
GroundTaker	3	2018	4	2020
Microwave Frequency Oscillator (MFO) C-sUAS	4	2016	4	2020
Mobile C-sUAS Airborne Platform Suite (MCAPS) Spiral	2	2019	4	2020
Multi vs. Multi Airborne Dispersed	1	2020	4	2022
Multi vs. Multi Dismounted Deployed	1	2020	4	2020
Pike on Reaper	4	2019	4	2020
Tech Exploitation Tech Red Device Coordination	1	2019	4	2020
Split Aces 4.0	1	2020	4	2021
<b>Test &amp; Eval</b>				
Test & Evaluation Support	1	2020	4	2020
<b>Vehicle-Borne IED (VBIED)</b>				
Supernova Spiral	4	2019	4	2020

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JC / <i>Enable Rapid Capability Delivery</i>
--	--	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>C-IED</i></b>				
Travel	1	2018	4	2020
UK Joint Tech Development	1	2019	4	2020
VBIED Detection Sensor Integration	3	2019	4	2020
<b><i>Global Data Integration</i></b>				
Data Science for Emerging Threats	3	2021	3	2022
Image Recognition Proof-of-Concept	3	2021	3	2022

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>				<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
JS: <i>Assist Situational Understanding</i>	29.300	1.607	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.907
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DTRA MIT created and deployed a significant capability called Voltron. Voltron provides analysts access to signals intelligence (SIGINT) data within a secure and IC-accredited software developer environment. Voltron provides users a single interface to query more than 25 data sources and combines results into dynamic visualizations and exports. Voltron captures analytics techniques and provides a constantly growing toolbox providing analysts with continuously new models in support of analysis and operations. Voltron provides analysts access to methodologies involving multi-INT fusion in an easy to use interface. These methods are based on years of experience supporting the tactical targeting environment and built in collaboration with other teams across the IC. There are currently more than 75 models in Voltron available to the user community.

DTRA's authorities and mission have enabled a unique Development, Security, and Operations (DevSecOps) "Path-to-Production" to rapidly develop and deploy mission-driven IT solutions. This unique development environment includes an integrated Cyber Security Assessment and Authorization process, an in-house collateral Authorizing Official for SIPRNet and DIA-approved Authorization to Operate on JWICS, creating a strong partnership between technologists and intelligence analysts working real-world problems, and a collaborative and innovative culture that launches practical software solutions rapidly.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> JS: Assist Situational Understanding	1.607	0.000	0.000	0.000	0.000
<b>Description:</b> Provides testing and engineering support for COTS and GOTS intelligence analysis application and software and systems that operate on the mission enclave. Supports cybersecurity testing and security engineering of new or upgraded software and systems prior to authorization to operate on production enclaves. Sandia / SETA Capability Research Architecture Cell (CRAC) identifies, investigates, explores, evaluates, and tests prototypes of emerging and cutting edge information technology that provides superior advantage to analysts and warfighters. Sandia / CRAC builds partnerships with mission partners in DoD, IC, IA, Academia, National Labs and Industry to support, develop and integrate plans, programs, requirements, resources, technology and innovations across the mission spectrum for DTRA. Facilitates innovation, acceleration of programs, rapid response to emerging events, and rapid development and operationalization of new technologies.					



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b><i>FY 2022 Plans:</i></b> N/A					
<b><i>FY 2023 Base Plans:</i></b> N/A					
<b><i>FY 2023 OCO Plans:</i></b> N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.607	0.000	0.000	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Assessment and selection of best performer to provide contractual services to develop and operationalize requirements through the new Enterprise Acquisition Strategy Initiative (EASI) at the least risk, optimal cost and proven technically. Performer base selection includes research developers across DoD and other Government agency laboratories, academia, and industry.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> JS / Assist Situational Understanding
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support	C/CPAF	Booz Allen Hamilton : Reston, VA	2.435	-		0.000		0.000		0.000		0.000	0.000	2.435	-
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability Development (Automation and Data Science)	C/CPAF	Booz Allen Hamilton : Reston, VA	3.653	-		0.000		0.000		0.000		0.000	0.000	3.653	-
Sandia	MIPR	Sandia National Laboratories : Reston, VA	0.103	-		0.000		0.000		0.000		0.000	0.000	0.103	-
IRTM	MIPR	Office of Naval Research : Arlington, VA	0.257	-		0.000		0.000		0.000		0.000	0.000	0.257	-
Network	C/FFP	John Hopkins : Baltimore, MD	1.815	-		0.000		0.000		0.000		0.000	0.000	1.815	-
Vehicle-Borne IED (VBIED)	C/CPFF	Naval Surface Warfare Command : Dahlgren, VA	8.500	-		0.000		0.000		0.000		0.000	0.000	8.500	-
<b>Subtotal</b>			16.763	-		0.000		0.000		0.000		0.000	0.000	16.763	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support	C/CPAF	Booz Allen Hamilton : Reston, VA	0.812	0.000		0.000		0.000		0.000		0.000	0.000	0.812	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>
--	--	--

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability Development (Automation and Data Science)	C/CPAF	Booz Allen Hamilton : Reston, VA	1.217	0.000		0.000		0.000		0.000		0.000	0.000	1.217	-
QRC IT Network (OIR)	C/CPAF	Booz Allen Hamilton : Reston, VA	1.456	0.000		0.000		0.000		0.000		0.000	0.000	1.456	-
QRC IT Network (RS)	C/CPAF	Booz Allen Hamilton : Reston, VA	0.348	0.000		0.000		0.000		0.000		0.000	0.000	0.348	-
Sandia	MIPR	Sandia National Laboratories : Reston, VA	0.346	0.000		0.000		0.000		0.000		0.000	0.000	0.346	-
Carnegie Mellon University-Software Engineering Institute (CMU-SEI)	MIPR	Carnegie Mellon University/SEI : Hanscomb AFB, MA	0.215	0.000		0.000		0.000		0.000		0.000	0.000	0.215	-
<b>Subtotal</b>			4.394	0.000		0.000		0.000		0.000		0.000	0.000	4.394	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support	C/CPAF	Booz Allen Hamilton : Reston, VA	0.812	0.000		0.000		0.000		0.000		0.000	0.000	0.812	-
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability	C/CPAF	Booz Allen Hamilton : Reston, VA	1.856	0.000		0.000		0.000		0.000		0.000	0.000	1.856	-



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Assist Situational Understanding</b>																												
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support																												
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability Development (Automation and Data Science)																												
QRC IT Network (OIR)																												
QRC IT Network (RS)																												
Sandia																												
SETA Capability Research Architecture Cell (CRAC)																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Assist Situational Understanding</b>																												
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support																												
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability Development (Automation and Data Science)																												
QRC IT Network (OIR)																												
QRC IT Network (RS)																												
Sandia																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SETA Capability Research Architecture Cell (CRAC)																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> JS / <i>Assist Situational Understanding</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Assist Situational Understanding</i></b>				
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Direct Operations Support	4	2016	4	2019
Attack the Network Suite (MIT) - Systems Integration Lab (SIL) - Mission IT Capability Development (Automation and Data Science)	4	2016	4	2019
QRC IT Network (OIR)	2	2017	2	2021
QRC IT Network (RS)	2	2017	2	2021
Sandia	1	2020	4	2021
SETA Capability Research Architecture Cell (CRAC)	4	2016	4	2021

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	0.000	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

During the FY 2021 execution, Catapult funding was realigned to this project to segregate this funding in preparation for the realignment of this program-of-record to the new program element PE 0604551BR.

**A. Mission Description and Budget Item Justification**

This project enables DTRA's Catapult Information System Program to design, develop, test, and deliver mission capabilities that support the ability to aggregate, and analyze data and information on global emerging threats and threat networks. Catapult and DTRA's Mission Information Technology (MIT) capability allows DTRA to rapidly develop, engineer, test and deploy analytical tools, threat models and simulations, data science methodologies, and software applications in support of the warfighter. Catapult and its associated Attack the Network Tool Suite (ANTS) integrates data sources that support the detection and identification of emerging threats, threat networks and actors, command and control, operations, intelligence, and engagement for neutralizing, attacking, and defeating both current and emerging improvised threats and threat networks.

DTRA's MIT capability, with its embedded Combatant Command (CCMD) capability, data integrators, and reachback staff work continuously to create capabilities requested by users from the DoD, the Intelligence Community (IC), interagency partners, and the Whole of Government to ingest, fuse, analyze, and present mission relevant data and information. These capabilities reside in Catapult, a cloud technology-based data analytics platform developed and being delivered by DTRA that provides an extensible, continuously augmented, real-time repository of intelligence on improvised threats and worldwide threat actors and networks. Catapult is fully operational and accredited on the Secret Internet Protocol Router Network (SIPRNet) and Joint Worldwide Intelligence Communications System (JWICS). The Catapult architecture pulls from more than 850 data sources on SIPRNet and more than 170 data sources on JWICS. Catapult uses a set of more than 100 tools (ANTS) and services to provide national-level capabilities for data and information capture, discovery, access, aggregation, correlation, visualization, analysis, sharing, and distribution for users from the strategic level to the tactical edge.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> CWMD Cross-Cutting Technical and Information Sciences	6.833	0.000	0.000	0.000	0.000
<b>Description:</b> This project enables DTRA to design, develop, test, and deliver mission capabilities that support the ability to collect, aggregate, and analyze intelligence data on global emerging threats and threat networks.					



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
The project allows DTRA to rapidly develop, engineer, test, and deploy analytical tools, threat models and simulations, data science methodologies, and software applications in support of the warfighter. Catapult and its associated Attack the Network Tool Suite (ANTS) integrates data sources that support the detection and identification of emerging threats, threat networks and actors, command and control, operations, intelligence, and engagement for neutralizing, attacking, and defeating both current and emerging improvised threats and threat networks.					
<b>FY 2022 Plans:</b> N/A					
<b>FY 2023 Base Plans:</b> N/A					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> No change. Project activities are complete.					
<b>Accomplishments/Planned Programs Subtotals</b>	6.833	0.000	0.000	0.000	0.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 13/0602134BR: <i>Improvised Threat Reduction Applied Research</i>	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 25/0602718BR: <i>Counter Weapons of Mass Destruction Applied Research</i>	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
• 105/0604551BR: <i>Catapult</i>	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 159/0605502BR: <i>Small Business Innovation Research</i>	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing	<b>Project (Number/Name)</b> RA / CWMD Cross-Cutting Technical and Information Sciences
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System	C/CPAF	Booz Allen Hamilton : Reston, VA	0.000	5.374	Aug 2021	0.000		0.000		0.000		0.000	0.000	5.374	5.374
<b>Subtotal</b>			0.000	5.374		0.000		0.000		0.000		0.000	0.000	5.374	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System Support	C/CPAF	Booz Allen Hamilton : Reston, VA	0.000	0.515	Aug 2021	0.000		0.000		0.000		0.000	0.000	0.515	0.515
<b>Subtotal</b>			0.000	0.515		0.000		0.000		0.000		0.000	0.000	0.515	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System	C/CPAF	Booz Allen Hamilton : Reston, VA	0.000	0.944	Aug 2021	0.000		0.000		0.000		0.000	0.000	0.944	0.944
<b>Subtotal</b>			0.000	0.944		0.000		0.000		0.000		0.000	0.000	0.944	N/A

Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		0.000	6.833	0.000	0.000	0.000	6.833	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>CWMD Cross-Cutting Technical and Information Sciences</i></b>	
Catapult / CTN Tool Suite Program of Record Support	

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>CWMD Cross-Cutting Technical and Information Sciences</i></b>	
Catapult / CTN Tool Suite Program of Record Support	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604134BR / <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>CWMD Cross-Cutting Technical and Information Sciences</i></b>				
Catapult / CTN Tool Suite Program of Record Support	4	2016	4	2021

**Note**

The Catapult program funding for FY 2022 and beyond has been realigned to PE 0604551BR. This R-4a reflects Catapult program activities through Q4 FY 2021.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	8.110	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	8.110	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing

**Note**

Catapult activities, previously justified under program element 0604134BR, were realigned to this program element to better reflect the nature of these ongoing activities. In FY 2020, \$8.110 million was appropriately executed in PE 0604134BR for the Catapult Program of Record. Within the exhibit, execution is reflected in PE 0604551BR which was newly established for Catapult beginning in FY 2022.

**A. Mission Description and Budget Item Justification**

This program designs, develops, tests, and delivers mission capabilities that support the ability to aggregate, and analyze data on global emerging threats and expedites DTRA's technology transition from the laboratory to operational use to reduce risk within the acquisition process. This is done by developing and deploying emerging technologies into our fully operational system through our Development, Security, and Operations (DevSecOps) pipeline.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	7.166	0.000	0.000	0.000
Current President's Budget	0.000	7.166	7.130	0.000	7.130
Total Adjustments	0.000	0.000	7.130	0.000	7.130
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	7.130	0.000	7.130

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>				<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	8.110	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project enables DTRA's Catapult Information System Program to design, develop, test and deliver mission capabilities that support the ability to aggregate and analyze data on global emerging threats, threat actors and threat networks. Catapult allows DTRA to rapidly develop, engineer, test and deploy analytical tools, data science methodologies and software applications in support of the warfighter. Catapult and its associated Attack the Network Tool Suite (ANTS) integrates data sources that support the detection and identification of emerging threats, threat networks and actors, command and control, operations, intelligence, and engagement for neutralizing, attacking and defeating both current and emerging threats and threat networks.

Catapult uses its RDT&E funding to meet user needs using tools and services that reside in Catapult, a cloud technology-based data analytics platform developed and delivered by DTRA that provides an extensible, continuously augmented, real-time repository of data on emerging threats and worldwide threat actors. Catapult is fully operational and accredited on the Secret Internet Protocol Router Network (SIPRNet) and Joint Worldwide Intelligence Communications System (JWICS). The Catapult architecture pulls from more than 850 data sources on SIPRNet and more than 170 data sources on JWICS. Catapult uses ANTS tools and services to provide national-level capabilities for data and information capture, discovery, access, aggregation, correlation, visualization, analysis, sharing, and distribution for users from the strategic level to the tactical edge.

This project achieves transformational mission capabilities and postures the Agency to meet emerging mission requirements through innovative technology solutions and service upgrades.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RA: <i>CWMD Cross-Cutting Technical and Information Sciences</i>	0.000	7.166	7.130	0.000	7.130
<b>Description:</b> This project enables DTRA's Catapult Information System Program to design, develop, test, and deliver mission capabilities that support the ability to aggregate and analyze data on global emerging threats. Catapult allows DTRA to rapidly develop, engineer, test and deploy analytical tools, data science methodologies and software applications in support of the warfighter.					
The project achieves transformational mission capabilities and postures the Agency to meet emerging mission requirements through innovative technology solutions and service upgrades.					



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p><b><i>FY 2022 Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Develop predictive Data Science models through supervised and unsupervised Machine Learning against current and emerging threats; including fusion of multi-INT data across unclassified and classified data sets to identify networks and locations of interest to DTRA and its mission partners.</li> <li>- Create a new development environment to enable “technology at the edge” to support real-time development of new Data Science models/algorithms at mission partner sites to enhance existing or future Catapult Machine Learning models.</li> <li>- Implement role-based access control and dynamic query analytics across Catapult data through Elastic Search to enable users to quickly retrieve known affiliates, family members, contacts, aliases, email addresses and other information about entities and enemy threat networks without running additional queries.</li> <li>- Create “Functions as a Service” by commoditizing common used functions and analytics across the ANTS to enable scalability and elasticity across the tool suite allowing ANTS capabilities to execute analytics against larger and more diverse data sets.</li> <li>- Extend Catapult architecture to allow for shared services across Whole of Government to enable analytics to be re-used in other platforms and tools across various IC and DoD organizations.</li> <li>- Develop Active Learning interface and pipeline to enable crowdsourced input for training and tagging data to feed new Data Science machine learning models.</li> <li>- Modularize Catapult’s Data Processing Framework to enable targeted data transformation based on data source, artifact mime type, artifact size or any number of other source specific properties. Add better processing support for structured data, imagery, financial, SIGINT, Measurement and Signature Intelligence (MASINT), Internet of Things (IoT) and cyber data to broaden the scope of the Catapult Analytics stack.</li> <li>- Determine the capabilities that go beyond simple content identification and labeling, and move toward understanding the story and context of the video or image.</li> <li>- Determine unsupervised and supervised techniques to cluster relevant information, and enable accurate insight for analysts to improve the understanding of (1) themes, (2) intent of extracted text, (3) topics, (4) authenticity, etc. within the given data set(s) (Natural Language Processing – Understanding and Context).</li> <li>- Improve processing with alternative hardware (neuromorphic processors, Field Programmable Gate Arrays, etc.) by determining the best next generation hardware designed to maximize the runtime efficiency, accuracy and limited space/power consumption of select Artificial Intelligence/Machine Learning (AI/ML) solutions.</li> </ul> <p><b><i>FY 2023 Base Plans:</i></b></p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<ul style="list-style-type: none"> <li>- Develop predictive Data Science models through supervised and unsupervised Machine Learning (ML) against current and emerging threats; including fusion of multi-INT data across unclassified and classified data sets to identify networks and locations of interest to DTRA and its mission partners.</li> <li>- Integrate ML-driven application features into ANTS capabilities, such as ML JavaScript libraries, to enhance human-centered design of applications and tailor individual access to applications to improve user experience.</li> <li>- Develop an Active Learning-enabled extension to the data annotation platform to accelerate preparation of training sets for both new and retrained machine learning models.</li> <li>- Develop a Named Entity Recognition (NER) enhancement using machine learning techniques to expand the scope of captured entities, including events, location features, person attributes and affiliations.</li> <li>- Integrate a query expansion capability to automatically recommend keywords in the corpus of documents as users are typing queries; accelerate document discovery and enhance information retrieval features in ANTS applications.</li> <li>- Automate the process of labeling data for supervised machine learning by integrating labeling functions or custom recipes.</li> <li>- Modernize the Catapult data model using JADC2-recognized formats, such as National Information Exchange Model (NIEM), or other open and recognized data model standards to improve the cross-compatibility of the Catapult corpus with other data repositories in the DoD.</li> <li>- Standardize open API services to adhere to JADC2 recommendations to improve data accessibility by using familiar lexicon, formats and techniques for retrieving data by data-as-a-service subscribers and citizen data scientists.</li> <li>- Develop the Next Generation of the Catapult Information System to align to the Joint All Domain Command and Control and Joint Warfighting Concept.</li> </ul> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The decrease from FY 2022 to FY 2023 is due to the realignment of information technology engineering and implementation funding to RA: CWMD Cross-Cutting Technical and Information Sciences in program element 0602718BR.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	7.166	7.130	0.000	7.130

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022	
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>				<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>			

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	Total Cost
			Base	OCO	Total					Complete	
• 12/0602134BR: <i>Improvised Threat Reduction Applied Research</i>	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449
• 23/0602718BR: <i>CWMD Applied Research</i>	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	0.000	0.000
• 32/0603160BR: <i>CWMD Advanced Technology Development</i>	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	0.000	0.000
• 95/0604134BR: <i>Counter Improvised- Threat Technology Demonstration, Prototype Development and Testing</i>	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
• 159/0605502BR: <i>Small Business Innovation Research</i>	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.241

**Remarks**

N/A

**D. Acquisition Strategy**

Assessment and selection of best performers to provide contractual services to develop and operationalize requirements through the new contract vehicle (IMAX) at the least risk, optimal cost and proven technically. Performer base selection includes research developers across DoD and other Government agency laboratories, academia, and industry.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System	C/CPAF	Booz Allen Hamilton : Reston, VA	5.218	0.000		5.969	Jul 2022	6.140	Jul 2023	0.000		6.140	Continuing	Continuing	-
<b>Subtotal</b>			5.218	0.000		5.969		6.140		0.000		6.140	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System	C/CPAF	Booz Allen Hamilton : Reston, VA	0.917	0.000		0.000		0.000		0.000		0.000	0.000	0.917	0.917
<b>Subtotal</b>			0.917	0.000		0.000		0.000		0.000		0.000	0.000	0.917	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Catapult Information System	C/CPAF	Booz Allen Hamilton : Reston, VA	0.500	0.000		0.963	Jul 2022	0.990	Jul 2023	0.000		0.990	Continuing	Continuing	-
SETA - Capability Research Architecture Cell (CRAC)	C/CPAF	TBD : Ft. Belvoir, VA	1.475	0.000		0.000		0.000		0.000		0.000	0.000	1.475	-
TACEON	C/CPAF	TBD : TBD	0.000	0.000		0.234		0.000		0.000		0.000	0.000	0.234	-
<b>Subtotal</b>			1.975	0.000		1.197		0.990		0.000		0.990	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		8.110	0.000	7.166	7.130	0.000	7.130	Continuing	Continuing	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Defense Threat Reduction Agency							<b>Date:</b> April 2022			
<b>Appropriation/Budget Activity</b> 0400 / 4			<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>			<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>				

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
--	-------------	---------	---------	--------------	-------------	---------------	------------------	------------	--------------------------

<u>Remarks</u>									

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Catapult and Technology Analysis</b>	
Catapult / Attack the Network Tool Suite (ANTS) Support	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604551BR / <i>Catapult</i>	<b>Project (Number/Name)</b> RA / <i>CWMD Cross-Cutting Technical and Information Sciences</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Catapult and Technology Analysis</i></b>				
Catapult / Attack the Network Tool Suite (ANTS) Support	4	2022	4	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	9.870	15.250	14.063	14.403	0.000	14.403	13.414	13.381	13.649	13.922	Continuing	Continuing
RD: <i>Nuclear Technologies and Capabilities Development</i>	9.870	15.250	14.063	14.403	0.000	14.403	13.414	13.381	13.649	13.922	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Counter Weapons of Mass Destruction (CWMD) Systems Development program element supports the development and demonstration of technologies and systems for the CWMD mission, including modeling and simulation (M&S) capabilities, verification and monitoring technologies, and decision support systems.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	15.650	14.063	0.000	0.000	0.000
Current President's Budget	15.250	14.063	14.403	0.000	14.403
Total Adjustments	-0.400	0.000	14.403	0.000	14.403
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.400	-			
• Adjustments to Budget Year	-	-	14.403	0.000	14.403

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>				<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RD: <i>Nuclear Technologies and Capabilities Development</i>	9.870	15.250	14.063	14.403	0.000	14.403	13.414	13.381	13.649	13.922	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project supports the development of capabilities for the Defense Threat Reduction Agency (DTRA) to counter proliferation and weapons of mass destruction (WMD) and to model the consequences of the use of nuclear weapons and integrate these capabilities for Combatant Command use.

DTRA's Enhanced Consequence Analysis (ECA) program performs research and development to improve the reliability and effectiveness of capabilities related to the consequence of execution of a nuclear weapon. This program delivers nuclear weapon effects (NWE) decision support tools for use during strategic and operational planning. The ECA program directly supports U.S. and allied warfighter planning requirements, including the Integrated Strategic Planning and Analysis Network Increment 5 (ISPAN Inc 5), an acquisition category (ACAT) 1A Major Automated Information System (MAIS) that supports developing nuclear and conventional force application plans.

DTRA's Nuclear Arms Control Technologies (NACT) program performs research and development to improve the sustainability, reliability, and effectiveness of capabilities related to its operational mission to install, operate, maintain, and sustain the waveform and radionuclide nuclear detonation detection stations and a radionuclide analysis laboratory comprising the majority of the U.S. portion of the International Monitoring System (IMS). This system delivers data continuously to the U.S. monitoring and verification community supporting warfighter and interagency nuclear-event response in support of the U.S. and Department of Defense (DoD). The NACT program directly supports U.S. and allied warfighter and national technical monitoring requirements and provides vital data used by the treaty monitoring community, warfighter planners, DoD, other U.S. Government agencies, and international agencies.

The Nuclear Capabilities Services (NuCS) program performs RDT&E to improve capabilities to model nuclear weapon effects (NWE) environments and simulate the response of systems and networks to these effects. Starting with NWE modeling & simulation (M&S) capabilities rooted in the DoD nuclear testing program, NuCS augments these legacy codes through integration of higher-fidelity reduced-order models built by DTRA applied research efforts that combine first-principle science & technology M&S and experimental research. Through technology updates to legacy codes and integration of new models, NuCS provide a standard source of NWE M&S capabilities for all DoD users. The Enhanced Consequence Analysis (ECA) program integrates NuCS capabilities and these M&S capabilities with operational databases and systems and works with end-users to provide a user experience specifically designed for nuclear planning. Together, these programs support United States and allied planning and decision making in the event of nuclear weapon use.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RD - Nuclear Technologies and Capabilities Development	15.250	14.063	14.403	0.000	14.403

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p><b>Description:</b> Project RD supports the NuCS, NACT, and ECA programs, conducting RDT&amp;E to support U.S. and allied nuclear planning and decision-making requirements.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Improve and expand the NWE M&amp;S capabilities available to be integrated in the NuCS and ECA programs for delivery to end-user programs.</li> <li>- Demonstrate newly-integrated NWE M&amp;S capabilities and establish priorities for improving and delivering these capabilities through early user assessment engagements with end-users.</li> <li>- Continue to integrate improved NWE M&amp;S capabilities into U.S. and allied planning and decision support systems in support of DoD nuclear planning requirements.</li> <li>- Conduct Research and Development in support of U.S. IMS sites globally.</li> <li>- Provide upgrades to U.S. IMS sites globally, as required.</li> </ul> <p><b>FY 2023 Base Plans:</b></p> <p>Nuclear Signature Monitoring – Signature Evaluation:</p> <ul style="list-style-type: none"> <li>- Develop geographically expanded monitoring capability and algorithms for detection of new threats, Conventional-Nuclear Integration (CNI), and verification of covert nuclear signatures.</li> <li>- Integrate nuclear and radionuclide data into Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) Consequence Management Response Force (CCMRF) Exercises to provide realistic scenarios for emergency response to nuclear events.</li> <li>- Characterize waveform signals from Cooperative Threat Reduction leveraged large-scale high-explosive tests at Soviet test sites to reduce uncertainty in nuclear effects models.</li> </ul> <p>International Monitoring System (IMS) - Signature Exploitation / Dual Use:</p> <ul style="list-style-type: none"> <li>- Expand digitization of nuclear testing data to other test sites and integrate into Waveforms From Nuclear Explosions (WFNE) to reduce uncertainty in nuclear effect models.</li> <li>- Improve and reduce uncertainty of infrasound propagation models for both IMS and other strategic DoD missions.</li> <li>- Expand characterization of waveform signals application to military mission and reduce uncertainty in nuclear effects models through detailed analysis of high-explosive coupling experiments.</li> </ul> <p>Nuclear Signature Monitoring - Signature Availability/System Performance:</p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
- Design the 32nd of 32 US IMS stations to demonstrate U.S. commitment and keep pace with other State Signatories' installation of 300 out of 321 (93%) stations. - Design the next-generation particulate monitoring station for dual-use to support both IMS and other strategic DoD missions. - Increase nuclear and radionuclide data provided from existing networks and sensors through the DTRA Joint Operations Center (JOC) to support Combatant Commands (CCMDs).  <b>FY 2023 OCO Plans:</b> N/A  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The increase from FY 2022 to FY 2023 is due to inflation.					
<b>Accomplishments/Planned Programs Subtotals</b>	15.250	14.063	14.403	0.000	14.403

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 25/0602718BR/RD: <i>Counter Weapons of Mass Destruction Applied Research</i>	83.538	101.229	106.095	0.000	106.095	110.854	112.082	114.321	111.359	Continuing	Continuing
• 34/0603160BR/RD: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	46.587	54.417	60.249	0.000	60.249	59.722	61.765	62.800	63.855	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
 Assess government, academic, and industrial performers and make selections based upon a "best fit for task" criteria. Common government awardees include DoD Service Laboratories and the Department of Energy National Laboratories.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Enhanced Consequence Analysis (ECA) capability development	C/CPFF	Booz Allen Hamilton : McLean, VA	2.555	0.000		2.100	Nov 2021	1.970	Mar 2023	0.000		1.970	Continuing	Continuing	-
Nuclear Capabilities Service (NuCS) nuclear weapon effects models and integration development	C/CPFF	Applied Research Associates : Raleigh, NC	0.000	0.000		0.300	Nov 2021	0.000		0.000		0.000	Continuing	Continuing	-
Nuclear Capabilities Service (NuCS) nuclear weapon effects models and integration development	TBD	TBD : TBD	0.000	0.000		1.100	Mar 2022	1.535	Mar 2023	0.000		1.535	Continuing	Continuing	-
<b>Subtotal</b>			2.555	0.000		3.500		3.505		0.000		3.505	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Radionuclide sensor, station, laboratory and network improvements	FFRDC	Pacific Northwest National Laboratory : Richland, WA	1.550	1.212	Jan 2021	1.236	Jan 2022	1.785	Jan 2023	0.000		1.785	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements; validation and verification testing	FFRDC	Sandia National Laboratory : Albuquerque, NM	1.850	1.244	Jan 2021	1.377	Jan 2022	1.589	Jan 2023	0.000		1.589	Continuing	Continuing	-
Radionuclide sensor, station, and network Improvements	MIPR	Air Force Technical Application Center : Patrick AFB, FL	0.500	0.390	Feb 2021	0.398	Feb 2022	0.350	Jan 2023	0.000		0.350	Continuing	Continuing	-
Radionuclide sensor, station, laboratory and network improvements	C/CPFF	General Dynamics Mission Systems, Inc. : Fairfax, VA	0.435	0.446	Nov 2020	0.455	Nov 2021	0.750	Nov 2022	0.000		0.750	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Station, and network Improvements	C/CPFF	Leidos Innovations Corp : Alexandria, VA	0.200	0.240	Nov 2020	0.245	Nov 2021	0.250	Mar 2023	0.000		0.250	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements	C/CPFF	Pennsylvania State University : State College, PA	0.400	0.450	Jan 2021	0.459	Jan 2022	0.275	Feb 2023	0.000		0.275	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements; validation and verification testing	C/CPFF	University of Alaska Fairbanks : Fairbanks, AK	0.143	0.000		0.000		0.395	Mar 2023	0.000		0.395	Continuing	Continuing	-
Integrated Munitions Effects Assessment Software Development	C/CPFF	Applied Research Associates, Inc : Alexandria, VA	0.200	0.200	Feb 2021	0.204	Feb 2022	0.000		0.000		0.000	0.000	0.604	-
Radionuclide sensor, station, laboratory and network improvements	FFRDC	Argonne National Laboratory : Argonne, IL	0.200	0.000		0.000		0.602	Mar 2023	0.000		0.602	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements; validation and verification testing	C/TBD	TBD : TBD	0.160	0.500	Mar 2021	0.510	Mar 2022	0.000		0.000		0.000	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements	MIPR	US Army Corps of Engineers : Vicksburg, MS	0.100	0.300	Jan 2021	0.306	Jan 2022	0.000		0.000		0.000	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements	MIPR	Missile Defense Agency : Fort Belvoir, VA	0.650	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements	MIPR	Geophysical Detection for Non-Proliferation University Affiliated Research Center, University of Alaska : Fairbanks, AK	0.500	0.206	Feb 2021	0.510	Feb 2022	0.695	Feb 2023	0.000		0.695	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Radionuclide sensor, station, and network Improvements	FFRDC	Savannah River National Laboratory : Savannah River Site Aiken, SC	0.404	0.750	Mar 2021	0.765	Mar 2022	0.300	Mar 2023	0.000		0.300	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements	MIPR	DIA/MSIC : TBD	0.000	0.250	Mar 2021	0.255	Mar 2022	0.000		0.000		0.000	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements; validation and verification testing	FFRDC	Lawrence Livermore National Laboratory : Livermore, CA	0.000	0.950	Jan 2021	0.969	Jan 2022	0.000		0.000		0.000	Continuing	Continuing	-
Radionuclide sensor, station, and network Improvements	C/CPFF	Draper : Cambridge, MA	0.000	3.000	Jul 2021	0.000		0.300	Jan 2023	0.000		0.300	Continuing	Continuing	-
Enhanced consequence analysis initial capability	C/CPFF	TBD : TBD	0.000	5.000	Jul 2021	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Seismic and Infrasound sensor, station, and network Improvements; validation and verification testing	C/CPFF	National Nuclear Center of Kazakhstan : Kazakhstan	0.000	0.000		0.000	Dec 2021	0.550	Dec 2022	0.000		0.550	Continuing	Continuing	-
Applied Research Associates : Albuquerque, NM	C/CPFF	Applied Research Associates : Albuquerque, NM	0.000	0.000		0.000		0.450	Dec 2022	0.000		0.450	Continuing	Continuing	-
<b>Subtotal</b>			7.292	15.138		7.689		8.291		0.000		8.291	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Enhanced Consequence Analysis (ECA) T&E	C/CPFF	Booz Allen Hamilton : McLean, VA	0.000	0.000		1.200	Nov 2021	1.020	Mar 2023	0.000		1.020	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
NuCS T&E	C/CPFF	Applied Research Associates : Raleigh, NC	0.000	0.000		0.500	Nov 2021	0.000	Mar 2023	0.000		0.000	Continuing	Continuing	-
NuCS T&E	TBD	TBD : TBD	0.000	0.000		1.060	Mar 2022	1.475	Mar 2023	0.000		1.475	Continuing	Continuing	-
<b>Subtotal</b>			0.000	0.000		2.760		2.495		0.000		2.495	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Travel	Reqn	Various : Various	0.023	0.112	Nov 2020	0.114	Nov 2021	0.112	Nov 2022	0.000		0.112	Continuing	Continuing	-
<b>Subtotal</b>			0.023	0.112		0.114		0.112		0.000		0.112	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	9.870	15.250	14.063	14.403	0.000	14.403	Continuing	Continuing	N/A

**Remarks**



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Enhanced Consequence Analysis (ECA)</b>																												
Assessment of software readiness, strategic and operational planning networks, and DoD and Allied requirements	██████████																											
Development of initial ECA decision support capability and establishment of software development pipeline for future capability enhancements	██████████																											
Test and evaluation of ECA integrated nuclear weapon effects models in preparation for deployment on strategic and operational planning networks	██████████																											
Deployment of ECA decision support tools on DoD and Allied strategic and operational planning networks																												
Update ECA decision support tools and integrate new nuclear weapon effects models once mature and available to meet DoD and Allied planning requirements																												
Train users on the employment, assumptions, and limitation of ECA nuclear weapon decision support tools																												
/2 Update ECA decision support tools and integrate new nuclear weapon effects models once mature and available to meet DoD and Allied planning requirements																												
/2 Test and evaluation of ECA integrated nuclear weapon effects models in preparation																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>
--	---	---

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
for deployment on strategic and operational planning networks																												
/2 Train users on the employment, assumptions, and limitation of ECA nuclear weapon decision support tools																												
<b>Nuclear Capabilities Services (NuCS)</b>																												
Release initial cloud-compatible capabilities																												
Develop and deliver capabilities planned for 2022 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for 2022 production release																												
Testing, verification, and validation activities and documentation development for 2022 production release																												
Develop training materials for 2022 production release																												
Develop and deliver capabilities planned for 2023 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for 2023 production release																												
Testing, verification, and validation activities and documentation development for 2023 production release																												
Develop and deliver capabilities planned for 2026 production release																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>
--	---	---

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2026																												
Testing, verification, and validation activities and documentation development for NuCS 2026																												
Integrate NuCS 2026 into operational systems																												
Develop and deliver capabilities planned for 2027 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2027																												
Testing, verification, and validation activities and documentation development for NuCS 2027																												
Integrate NuCS 2027 into operational systems																												
Develop and deliver capabilities planned for 2028 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2028																												
Testing, verification, and validation activities and documentation development for NuCS 2028																												
Update and deliver training on released capabilities																												



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
for deployment on strategic and operational planning networks																												
/2 Train users on the employment, assumptions, and limitation of ECA nuclear weapon decision support tools																												
<b>Nuclear Capabilities Services (NuCS)</b>																												
Release initial cloud-compatible capabilities																												
Develop and deliver capabilities planned for 2022 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for 2022 production release																												
Testing, verification, and validation activities and documentation development for 2022 production release																												
Develop training materials for 2022 production release																												
Develop and deliver capabilities planned for 2023 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for 2023 production release																												
Testing, verification, and validation activities and documentation development for 2023 production release																												
Develop and deliver capabilities planned for 2026 production release																												

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / Counter Weapons of Mass Destruction Systems Development	<b>Project (Number/Name)</b> RD / Nuclear Technologies and Capabilities Development
--	--	--

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2026																												
Testing, verification, and validation activities and documentation development for NuCS 2026																												
Integrate NuCS 2026 into operational systems																												
Develop and deliver capabilities planned for 2027 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2027																												
Testing, verification, and validation activities and documentation development for NuCS 2027																												
Integrate NuCS 2027 into operational systems																												
Develop and deliver capabilities planned for 2028 production release																												
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2028																												
Testing, verification, and validation activities and documentation development for NuCS 2028																												
Update and deliver training on released capabilities																												

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Enhanced Consequence Analysis (ECA)</i></b>				
Assessment of software readiness, strategic and operational planning networks, and DoD and Allied requirements	1	2020	4	2021
Development of initial ECA decision support capability and establishment of software development pipeline for future capability enhancements	3	2020	2	2021
Test and evaluation of ECA integrated nuclear weapon effects models in preparation for deployment on strategic and operational planning networks	4	2020	1	2025
Deployment of ECA decision support tools on DoD and Allied strategic and operational planning networks	1	2021	1	2023
Update ECA decision support tools and integrate new nuclear weapon effects models once mature and available to meet DoD and Allied planning requirements	2	2021	4	2025
Train users on the employment, assumptions, and limitation of ECA nuclear weapon decision support tools	2	2021	4	2025
/2 Update ECA decision support tools and integrate new nuclear weapon effects models once mature and available to meet DoD and Allied planning requirements	2	2025	4	2027
/2 Test and evaluation of ECA integrated nuclear weapon effects models in preparation for deployment on strategic and operational planning networks	4	2022	4	2027
/2 Train users on the employment, assumptions, and limitation of ECA nuclear weapon decision support tools	4	2022	4	2027
<b><i>Nuclear Capabilities Services (NuCS)</i></b>				
Release initial cloud-compatible capabilities	1	2021	2	2021
Develop and deliver capabilities planned for 2022 production release	2	2021	2	2022
Demonstrate modeling and simulation capabilities and enable early user assessment for 2022 production release	1	2021	4	2022

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>Counter Weapons of Mass Destruction Systems Development</i>	<b>Project (Number/Name)</b> RD / <i>Nuclear Technologies and Capabilities Development</i>
--	---	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Testing, verification, and validation activities and documentation development for 2022 production release	1	2021	4	2022
Develop training materials for 2022 production release	1	2021	4	2022
Develop and deliver capabilities planned for 2023 production release	2	2022	2	2025
Demonstrate modeling and simulation capabilities and enable early user assessment for 2023 production release	2	2022	3	2026
Testing, verification, and validation activities and documentation development for 2023 production release	2	2022	3	2026
Develop and deliver capabilities planned for 2026 production release	1	2025	4	2025
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2026	2	2025	1	2026
Testing, verification, and validation activities and documentation development for NuCS 2026	2	2025	4	2026
Integrate NuCS 2026 into operational systems	1	2027	2	2027
Develop and deliver capabilities planned for 2027 production release	1	2026	4	2026
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2027	2	2026	1	2027
Testing, verification, and validation activities and documentation development for NuCS 2027	2	2026	4	2027
Integrate NuCS 2027 into operational systems	1	2027	2	2027
Develop and deliver capabilities planned for 2028 production release	1	2027	4	2027
Demonstrate modeling and simulation capabilities and enable early user assessment for NuCS 2028	2	2027	4	2027
Testing, verification, and validation activities and documentation development for NuCS 2028	2	2027	4	2027
Update and deliver training on released capabilities	2	2022	4	2027



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b>					<b>R-1 Program Element (Number/Name)</b>							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 5: System Development &amp; Demonstration (SDD)</i>					PE 0605141BR / <i>Mission Assurance Risk Management System (MARMS)</i>							
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	5.500	5.500	14.093	0.000	14.093	9.316	9.440	9.573	9.702	Continuing	Continuing
MA: <i>Mission Assurance Risk Management System</i>	0.000	5.500	5.500	14.093	0.000	14.093	9.316	9.440	9.573	9.702	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

MARMS is a Department of Defense (DoD) risk management system that directly supports the Secretary of Defense Mission Assurance (MA) responsibilities as defined in the DoD Directive (DoDD) 3020.40, Mission Assurance, with the objectives of creating resilience and supporting critical processes to enable the protection of assets and ensuring defense critical missions across 17 Mission Assurance Related Programs and Activities (MARPA). MARMS functions as an integration framework spanning multiple security domains that will support risk-informed decision-making, resource investment, and improved synchronization at different levels within DoD. MARMS supports multiple Joint Capability Areas (JCA): Command and Control, Logistics, and Protection. MARMS is a joint program and an acquisition category (ACAT) III software-intensive and situational awareness program in the agile-based Adaptive Acquisition Framework – Software Pathway (AAF-SWP). MARMS has Risk Management Framework (RMF) security controls in place to protect the Mission Assurance data with a "high" impact value for confidentiality and integrity, and "medium" for the availability security objectives in accordance with DoD Instruction (DoDI) 8510.01 and the Committee on National Security Systems Instruction (CNSSI) 1253.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	5.500	5.500	0.000	0.000	0.000
Current President's Budget	5.500	5.500	14.093	0.000	14.093
Total Adjustments	0.000	0.000	14.093	0.000	14.093
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	14.093	0.000	14.093

**Change Summary Explanation**

FY 2023 funds increase because the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / Mission Assurance Risk Management System (MARMS)				<b>Project (Number/Name)</b> MA / Mission Assurance Risk Management System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
MA: Mission Assurance Risk Management System	0.000	5.500	5.500	14.093	0.000	14.093	9.316	9.440	9.573	9.702	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

MARMS is a Department of Defense (DoD) risk management system that directly supports the Secretary of Defense's Mission Assurance (MA) responsibilities as defined in the DoD Directive (DoDD) 3020.40, Mission Assurance, with the objectives of creating resilience and supporting critical processes to enable the protection of assets and ensuring defense critical missions. MARMS will function as an integration framework spanning multiple security domains that will support risk-informed decision-making, resource investment, and improved synchronization at different levels within DoD. MARMS supports multiple Joint Capability Areas (JCA): Command and Control, Logistics, and Protection. MARMS is an acquisition category (ACAT) III software program and has a "high" impact value for confidentiality and integrity, and "medium" for the availability security objective in accordance with DoD Instruction (DoDI) 8510.01 and the Committee on National Security Systems Instruction (CNSSI) 1253.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> MA - Mission Assurance Risk Management System	5.500	5.500	14.093	0.000	14.093
<p><b>Description:</b> MARMS is a multi-year enduring program that will federate a family of MA systems to be integrated as an enterprise solution defined in the MARMS Information System Initial Capabilities Document (IS-ICD) and Requirements Definition Package (RDP) for Increment 1. The RDP-1 defines multiple spirals of major technological improvements. Each spiral is comprised of multiple Capability Drops (CD) that define specific capabilities. RDP-1 defines seven capability drops focusing on the collection, analysis, warehousing, sharing, protection, and accessing of Defense Critical Infrastructure (DCI) and Anti-Terrorism (AT) data to support risk-informed decision making, resource investment and improve synchronization across Mission Assurance-related programs for Increment 1.</p> <p><b>FY 2022 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue to improve the capability of the Information Sharing Registry (CD1) toward overall program initial capability fielding of DCI and AT risk data at the end of FY 2022.</li> <li>- Modernize and integrate assessment capabilities, existing systems, and the Mission Assurance Viewer and Analysis Portal on SIPR (CD2, CD3, and CD4).</li> <li>- Begin modernization and integration of the Mission Assurance Viewer and Analysis Portal on JWICS (CD5) toward initial capability fielding in 4th Quarter FY 2022.</li> </ul>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / <i>Mission Assurance Risk Management System (MARMS)</i>	<b>Project (Number/Name)</b> MA / <i>Mission Assurance Risk Management System</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Begin modernization and integration of Cross Domain Solution – SIPR to JWICS (CD6) in 1st Quarter FY 2022 and JWICS to SIPR (CD7) in 1st Quarter FY2023.					
<b><i>FY 2023 Base Plans:</i></b>					
- Develop MARMS Increment 2 adding integration of DoD risk-based data for next three Mission Assurance Related Programs and Activities (MARPA): DoD Cybersecurity, Energy Resilience (ER), & Emergency Management (EM).					
- Develop base capability (Data Registry, Enterprise Viewer, Cross Domain) for new Unclassified MARMS Architecture to support three new MARPAs.					
- Develop enhancements to existing Unclassified/SIPR/Top Secret systems that support the new MARPAs.					
- Transition from USAF EPRM to an alternate platform.					
- Establish new hosting, accreditation, and development as needed to supporting AT and DCI assessments.					
<b><i>FY 2023 OCO Plans:</i></b>					
N/A					
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b>					
The increase from FY 2022 to FY 2023 is due to increased investment for new MARMS capabilities required to support the alignment of risk-based data for three new Mission Assurance Related Programs and Activities (MARPA), Emergency Management (EM), Energy Resilience (ER), and Cybersecurity, which have new requirements for unclassified MARMS information technology (IT) solutions.					
<b>Accomplishments/Planned Programs Subtotals</b>	5.500	5.500	14.093	0.000	14.093

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The acquisition strategy for MARMS is based on its designation as a joint DoD program and being a software-intensive and situational awareness program. Therefore, it is aligned to follow the acquisition construct defined by the agile-based DoDI 5000.87 Adaptive Acquisition Framework – Software Pathway (AAF-SWP). In order to accomplish the Mission Assurance Strategy and Policy of aligning and integrating the risk based data for the 17 Mission Assurance Related Programs and Activities (MARPA), the MARMS PMO will build on the initial foundational/baseline information technology capabilities and data integration investments for Increments 1 and 2 for the remaining MARPAs per the guidance of the Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance (DASD-DC&MA) and the Joint

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / <i>Mission Assurance Risk Management System (MARMS)</i>	<b>Project (Number/Name)</b> MA / <i>Mission Assurance Risk Management System</i>

Staff J36 Mission Assurance Branch. Joint Capabilities Integration and Development System (JCIDS) IT-Box terminology of Modernize and Integrate, IOC/FOC, will be phased out with continuous Development, Security, and Operations (DevSecOps) as an enduring program.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / Mission Assurance Risk Management System (MARMS)	<b>Project (Number/Name)</b> MA / Mission Assurance Risk Management System
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Mission Assurance and Risk Management System (MARMS) Secret Internet Protocol Router (SIPR) Hosting	MIPR	U.S. Army ALTESS : Radford, VA	0.000	0.000		0.120	Dec 2021	0.130	Dec 2022	0.000		0.130	Continuing	Continuing	-
MARMS Unclassified Hosting	C/TBD	TBD : TBD	0.000	0.000		0.000		0.600	Feb 2024	0.000		0.600	Continuing	Continuing	-
MARMS SIPR Hosting - COOP	C/TBD	TBD : TBD	0.000	0.000		0.000		0.100	Feb 2023	0.000		0.100	Continuing	Continuing	-
MARMS JWICS Hosting	C/TBD	Central Intelligence Agency : Langley, VA	0.000	0.000		0.000		0.100	Feb 2023	0.000		0.100	Continuing	Continuing	-
Capability Drop (CD) 1 - Information Sharing	MIPR	U.S. Army Future Command (AFC) : Picatinny Arsenal, NJ	0.000	2.795	Nov 2020	1.560	Nov 2021	3.560	Nov 2022	0.000		3.560	Continuing	Continuing	-
CD2 EPRM Engineering COA	C/TBD	TBD : TBD	0.000	0.000		0.000		1.500	Feb 2023	0.000		1.500	Continuing	Continuing	-
CD2 - Assessment Capability	MIPR	USAF : Washington, DC	0.000	0.500	Feb 2021	0.590	Nov 2021	1.600	Nov 2022	0.000		1.600	Continuing	Continuing	-
CD3 - Existing System Upgrades	MIPR	Naval Surface Warfare Center (NSWC) : Dahlgren	0.000	0.640	Feb 2021	0.620	Feb 2022	0.700	Feb 2023	0.000		0.700	Continuing	Continuing	-
CD3 - Existing System Upgrades	MIPR	USSTRATCOM : Omaha, NE	0.000	0.250	Nov 2020	0.250	Dec 2021	0.250	Dec 2022	0.000		0.250	Continuing	Continuing	-
CD4 - Workspace/Viewer on Secret Internet Protocol Router Network (SIPR)	C/CPFF	Appdiction, Inc. : Fort Belvoir, VA	0.000	0.420	Feb 2021	0.840	Feb 2022	0.900	Feb 2023	0.000		0.900	Continuing	Continuing	-
CD5 - Workspace/Viewer on Joint Worldwide Intelligence Communications System (JWICS)	C/CPFF	Appdiction, Inc. : Fort Belvoir, VA	0.000	0.420	Feb 2021	0.790	Feb 2022	0.900	Feb 2023	0.000		0.900	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Defense Threat Reduction Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / Mission Assurance Risk Management System (MARMS)	<b>Project (Number/Name)</b> MA / Mission Assurance Risk Management System
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CD6 - Cross Domain Solution SIPR to JWICS	MIPR	U.S. Army Future Command (AFC) : Picatinny Arsenal, NJ	0.000	0.350	Feb 2021	0.100	Feb 2022	0.100	Feb 2023	0.000		0.100	Continuing	Continuing	-
CD7 - CD6 - Cross Domain Solution JWICS to SIPR	MIPR	U.S. Army Future Command (AFC) : Picatinny Arsenal, NJ	0.000	0.125	Feb 2021	0.000		0.000		0.000		0.000	Continuing	Continuing	-
CD8 - Registry & Workspace/Viewer on Unclassified Internet Protocol Router Network (NIPR)	MIPR	U.S. Army Future Command (AFC) : Picatinny Arsenal, NJ	0.000	0.000		0.000		2.000	Apr 2023	0.000		2.000	Continuing	Continuing	-
CD9 - Unclassified Data Management & Cross Domain Solution NIPR to Higher Domains	MIPR	U.S. Army Future Command (AFC) : Picatinny Arsenal, NJ	0.000	0.000		0.000		1.000	Apr 2023	0.000		1.000	Continuing	Continuing	-
<b>Subtotal</b>			0.000	5.500		4.870		13.440		0.000		13.440	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Office Subject Matter Expertise Support	FFRDC	Institute for Defense Analysis : Ft. Belvoir, VA	0.000	0.000		0.380	Nov 2021	0.390	Nov 2022	0.000		0.390	Continuing	Continuing	-
Program Management Office Subject Matter Expertise Support	C/TBD	TBD : Ft. Belvoir, VA	0.000	0.000		0.250	May 2022	0.263	May 2023	0.000		0.263	Continuing	Continuing	-
<b>Subtotal</b>			0.000	0.000		0.630		0.653		0.000		0.653	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
	<b>Project Cost Totals</b>		0.000	5.500	5.500	14.093	0.000	14.093	Continuing	Continuing



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Defense Threat Reduction Agency		Date: April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / Mission Assurance Risk Management System (MARMS)	<b>Project (Number/Name)</b> MA / Mission Assurance Risk Management System

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Mission Assurance and Risk Management (MARMS)</b>	
Hosting for MARMS (Consolidated)	[Redacted]
Capability Drop (CD) 1: Information Sharing Registry	[Redacted]
CD 2: Assessment Capability – Enterprise Protection Risk Management System (EPRM) (to include new engineering task)	[Redacted]
CD 3: System Upgrades – Mission Decomposition and Asset Dependency Module –Mission Assurance Decision Support System (MADSS)	[Redacted]
CD 3: System Upgrades - Asset Management Module – Strategic Mission Assurance Database System (SMADS)	[Redacted]
CD 4: Workspace/Viewer on SIPR	[Redacted]
CD 5: Workspace/Viewer on JWICS	[Redacted]
CD 6: Cross Domain Solution - SIPR to JWICS	[Redacted]
CD 7: Cross Domain Solution - JWICS to SIPR	[Redacted]
CD 8: Registry & Workspace/Viewer on NIPR	[Redacted]
CD 9: Unclassified Data Management & Cross Domain Solution NIPR to Higher Domains	[Redacted]
PMO SME Support	[Redacted]



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605141BR / <i>Mission Assurance Risk Management System (MARMS)</i>	<b>Project (Number/Name)</b> MA / <i>Mission Assurance Risk Management System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Mission Assurance and Risk Management (MARMS)</i></b>				
Hosting for MARMS (Consolidated)	1	2022	4	2027
Capability Drop (CD) 1: Information Sharing Registry	1	2021	4	2027
CD 2: Assessment Capability – Enterprise Protection Risk Management System (EPRM) (to include new engineering task)	1	2021	4	2027
CD 3: System Upgrades – Mission Decomposition and Asset Dependency Module – Mission Assurance Decision Support System (MADSS)	1	2021	4	2027
CD 3: System Upgrades - Asset Management Module – Strategic Mission Assurance Database System (SMADS)	1	2021	4	2027
CD 4: Workspace/Viewer on SIPR	1	2021	4	2027
CD 5: Workspace/Viewer on JWICS	1	2021	4	2027
CD 6: Cross Domain Solution - SIPR to JWICS	1	2021	3	2024
CD 7: Cross Domain Solution - JWICS to SIPR	1	2022	4	2027
CD 8: Registry & Workspace/Viewer on NIPR	3	2023	4	2027
CD 9: Unclassified Data Management & Cross Domain Solution NIPR to Higher Domains	3	2023	4	2027
PMO SME Support	1	2022	4	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6:</i> <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	95.496	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RA: <i>Information Sciences and Applications</i>	95.496	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

Funding for the ongoing SBIR/STTR program is consolidated in this program element during the year of execution.

**A. Mission Description and Budget Item Justification**

The Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs provide the means for stimulating technological innovation in the private sector, strengthens the role of small business in meeting the Department of Defense (DoD) research and development needs; fosters and encourages participation of minority and disadvantaged businesses in technological innovation; and increases the commercial application of the DoD supported research and development results. These efforts are responsive to Public Law 106-554.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	14.241	0.000	0.000	0.000	0.000
Total Adjustments	14.241	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	14.241	0.000			

**Change Summary Explanation**

Funding for the SBIR program is consolidated in this program element during the year of execution.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>			<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RA: <i>Information Sciences and Applications</i>	95.496	14.241	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

\*Funding is not allocated until the year-of-execution. Program Element 0605502BR “Small Business Innovation Research (SBIR)” is used to report year-end execution. FY 2022 and FY 2023 plans are provided based on estimated SBIR/STTR funding levels to be determined in accordance with the law and relative to final Agency RDT&E portfolio appropriations.

**A. Mission Description and Budget Item Justification**

The Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs provide the means for stimulating technological innovation in the private sector and strengthens the role of small business in meeting the Department of Defense (DoD) research and development needs. These programs foster and encourage participation of minority and disadvantaged businesses in technological innovation and increase the commercial application of DoD supported research and development results. These efforts are responsive to Public Law 106-554 Small Business Act (15 U.S.C. 638).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> RA: Information Sciences and Applications	14.241	0.000	0.000	0.000	0.000
<b>Description:</b> This project provides the means for stimulating technological innovation in the private sector; strengthens the role of small business in meeting the DoD research and development needs; fosters and encourages participation of minority and disadvantaged businesses in technological innovation; and increases the commercial application of the DoD supported research and development results. These efforts are responsive to Public Law 106-554.					
<b>FY 2022 Plans:</b> Nine Small Business Innovation Research projects (\$12.291M) are planned to address:  - Developing radiation dose advisory technology; developing pedigree reconstruction capabilities to identify terrorist networks; for the use of transient electric field measurements as test diagnostics; for nuclear scintillation mitigation by matched channel; and radiation-resistant and temperature-insensitive solid state photomultipliers.					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<p>- SBIR research projects will also address technology concepts for distributed, cooperative, learning for subterranean robotic autonomous systems; global nano aerial terrestrial sensing for radiation/nuclear detection; applying lifecycle management and continuous integration for pre-exascale high performance computing architectures; advanced optics based magnetic field diagnostics for nuclear weapon effects testing; developing algorithms that can locally link radiation detectors to enhance identification/ localization capability; augmented reality and virtual reality capabilities; and develop modern low visibility Radio Frequency (RF) capabilities.</p> <p>Additional research areas (\$2.258M) will be determined in March 2022 in conjunction with the upcoming OSD Broad Agency Announcement.</p> <p>Five STTR Innovation Research Technology projects (\$2.046M) are to develop technology for synthetic aperture radar image generation data augmentation, develop numeric-informed neural networks, and develop mathematical models to build multi-radiation detector algorithms. An additional \$1.100M project will be down-selected from current on-going research efforts.</p> <p><b>FY 2023 Base Plans:</b> SBIR projects (\$2.900M) will address requirements for areas of research that will be selected in March 2022 and others later in the year in accordance with the OSD SBIR FY 2022.3 Broad Agency Announcements.</p> <p>More mature technology projects (\$11.100M) will focus in the areas of Artificial Intelligence/Machine Learning edge computing-based solutions in forward deployed cell phones and associated equipment; technology for distributed and cooperative learning for subterranean robotic autonomous systems; global nanotechnology aerial/terrestrial sensing for radiation/nuclear detection technology; pre-exascale high performance computing architectures; advanced optics-based magnetic field diagnostics for nuclear weapon effects testing; developing algorithms that can locally link radiation detectors (of different resolutions) to enhance identification/localization capability; augmented reality and virtual reality capabilities; and, modernized low-visibility RF capabilities.</p> <p>STTR project (\$2.000 million) requirements are yet to be determined. These topics will be developed in accordance with the overarching OSD Broad Agency Announcements.</p> <p><b>FY 2023 OCO Plans:</b> N/A</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	14.241	0.000	0.000	0.000	0.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 13/0602134BR: <i>Improvised Threat Reduction Applied Research</i>	2.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.449
• 25/0602718BR: <i>Counter Weapons of Mass Destruction Applied Research</i>	36.288	48.112	32.670	0.000	32.670	39.918	40.914	32.639	33.543	Continuing	Continuing
• 34/0603160BR: <i>Counter Weapons of Mass Destruction Advanced Technology Development</i>	50.959	84.660	78.991	0.000	78.991	84.775	86.706	84.214	84.684	Continuing	Continuing
• 98/0604134BR: <i>Counter Improvised- Threat Technology Demonstration, Prototype Development and Testing</i>	6.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.833
• 105/0604551BR: <i>Catapult</i>	0.000	7.166	7.130	0.000	7.130	7.328	7.475	7.625	7.777	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0606853BR / <i>Management Technical and International Support</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	12.354	0.000	12.354	11.919	12.115	12.358	12.605	Continuing	Continuing
MN: <i>Defense Critical Infrastructure - Mission Assurance</i>	0.000	0.000	0.000	12.354	0.000	12.354	11.919	12.115	12.358	12.605	Continuing	Continuing

**Note**

This new program element supports the development of a series of advanced analytic efforts to more effectively identify risks and threats to Surge Layer Defense and, more broadly, DoD's Mission Assurance (MA) as identified in the current National Defense Strategy. This is a new start.

**A. Mission Description and Budget Item Justification**

The Defense Threat Reduction Agency (DTRA), as the DoD Center of Excellence for Mission Assurance Assessments, has been tasked by Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance (DASD (DC&MA)) with leading change within the MA community on behalf of OSD to ensure best practices are documented during the Joint Mission Assurance Assessments (JMAA), Balanced Survivability Assessments (BSA), and Red Team Assessments. Including but not limited to dependency analysis, asymmetric threats, cyber operations, general engineering, security operations, and emergency management.

In partnership with the Homeland Advanced Analytic Capability (HAAC) program and the U.S. Department of the Navy of Defense Critical Infrastructure - Mission Assurance program, DTRA's Mission Assurance program will perform mission analysis; engineering and commercial infrastructure network interdependency analysis; MA assessments; information enterprise design, implementation, and support; and defense industrial base supply chain network and related analysis. Providing broad leadership, best practices, research, development, coordination, and support to DoD Components around specific focus areas to drive solution-oriented efficiencies, collaboration, and results that benefit the entire DoD MA enterprise.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0606853BR / <i>Management Technical and International Support</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	12.354	0.000	12.354
Total Adjustments	0.000	0.000	12.354	0.000	12.354
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Increase for Defense Critical Infrastructure	-	-	12.354	0.000	12.354

**Change Summary Explanation**

The increase from the FY 2022 President's Budget is a consolidation of DoD MA Enterprise funding from the U.S. Department of the Navy of Defense Critical Infrastructure - Mission Assurance program and Defense Wide activities to DTRA to establish the Homeland Advanced Analytic Capability (HAAC) program.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Defense Threat Reduction Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0606853BR / <i>Management Technical and International Support</i>	<b>Project (Number/Name)</b> MN / <i>Defense Critical Infrastructure - Mission Assurance</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
MN: <i>Defense Critical Infrastructure - Mission Assurance</i>	0.000	0.000	0.000	12.354	0.000	12.354	11.919	12.115	12.358	12.605	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

This new program element supports the development of a series of advanced analytic efforts to more effectively identify risks and threats to Surge Layer Defense and, more broadly, DoD's Mission Assurance (MA) as identified in the current National Defense Strategy. This is a new start.

**A. Mission Description and Budget Item Justification**

This project supports the development of a series of advanced analytic efforts to more effectively identify risks and threats to Surge-Layer Defense and, more broadly, DoD's Mission Assurance (MA) as identified in the current National Defense Strategy.

The Defense Threat Reduction Agency (DTRA) as the DoD Center of Excellence for Mission Assurance Assessments has been tasked by Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance (DASD (DC&MA)) with leading change within the MA community on behalf of OSD to ensure best practices are documented during Joint Mission Assurance Assessments, Balanced Survivability Assessments, and Red Team Assessments. Including but not limited to dependency analysis, asymmetric threats, cyber operations, general engineering, security operations, and emergency management.

In partnership with the Homeland Advanced Analytic Capability (HAAC) program and the U.S. Department of the Navy's Defense Critical Infrastructure - Mission Assurance program, DTRA's Mission Assurance program will perform mission analyses; engineering, and commercial infrastructure network interdependency analyses; MA assessments; information enterprise design, implementation, and support; and defense industrial base supply chain network and related analysis. Providing broad leadership, best practices, research, development, coordination, and support to DoD Components around specific focus areas to drive solution-oriented efficiencies, collaboration, and results that benefit the entire DoD MA enterprise.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<b>Title:</b> MN - Defense Critical Infrastructure - Mission Assurance	0.000	0.000	12.354	0.000	12.354
<b>Description:</b> This program establishes an integrated and comprehensive approach to deliver vastly improved threat data and operational support to the DoD mission assurance enterprise.					
<b>FY 2022 Plans:</b>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Defense Threat Reduction Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0606853BR / <i>Management Technical and International Support</i>	<b>Project (Number/Name)</b> MN / <i>Defense Critical Infrastructure - Mission Assurance</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
N/A					
<p><b><i>FY 2023 Base Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Provide oversight and program management of the HAAC program in coordination with Office of the Under Secretary of Defense for Policy (OUSDP), the U.S. Navy, and the U.S. Air Force.</li> <li>- Provide HAAC products to facilitate DoD dependency analysis, vulnerability, and risk assessments.</li> <li>- Develop innovative infrastructure network interdependency analysis while identifying and prioritizing threats and risks to DoD's critical infrastructure.</li> </ul> <p><b><i>FY 2023 OCO Plans:</i></b> N/A</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase from FY 2022 to FY 2023 is due to a consolidation of DoD MA Enterprise funding from the U.S. Department of the Navy's Defense Critical Infrastructure - Mission Assurance program and Defense Wide activities to DTRA to establish the Homeland Advanced Analytic Capability (HAAC) program.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	12.354	0.000	12.354

<p><b>C. Other Program Funding Summary (\$ in Millions)</b> N/A</p> <p><b>Remarks</b></p> <p><b>D. Acquisition Strategy</b> N/A</p>
---

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**DoD Human Resources Activity**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

DoD Human Resources Activity • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 701**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 713**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 715**  
**Exhibit R-2s..... Volume 5 - 717**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	37,919	30,509				
Total Research, Development, Test & Evaluation	37,919	30,509				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

<u>Appropriation</u>	<u>FY 2022 Total Supplemental Enactment</u>	<u>FY 2022 Total Enactment</u>	<u>FY 2023 Request</u>
Research, Development, Test & Eval, DW		30,509	30,664
Total Research, Development, Test & Evaluation		30,509	30,664



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
-----	-----	-----	-----	-----	-----	-----
System Development & Demonstration	7,287	7,205				
Management Support	30,632	23,304				
Total Research, Development, Test & Evaluation	37,919	30,509				
<b>Summary Recap of FYDP Programs</b>						
-----	-----	-----	-----	-----	-----	-----
Intelligence and Communications	1,112	853				
Research and Development	36,707	28,967				
Training Medical and Other	100	689				
Total Research, Development, Test & Evaluation	37,919	30,509				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
System Development & Demonstration		7,205	6,191
Management Support		23,304	24,473
Total Research, Development, Test & Evaluation		30,509	30,664
<u>Summary Recap of FYDP Programs</u>			
Intelligence and Communications		853	
Research and Development		28,967	29,948
Training Medical and Other		689	716
Total Research, Development, Test & Evaluation		30,509	30,664

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b>						
System Development & Demonstration	7,287	7,205				
Management Support	30,632	23,304				
Total Research, Development, Test & Evaluation	37,919	30,509				
<b>Summary Recap of FYDP Programs</b>						
Intelligence and Communications	1,112	853				
Research and Development	36,707	28,967				
Training Medical and Other	100	689				
Total Research, Development, Test & Evaluation	37,919	30,509				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
<u>Summary Recap of Budget Activities</u>			
System Development & Demonstration		7,205	6,191
Management Support		23,304	24,473
Total Research, Development, Test & Evaluation		30,509	30,664
<u>Summary Recap of FYDP Programs</u>			
Intelligence and Communications		853	
Research and Development		28,967	29,948
Training Medical and Other		689	716
Total Research, Development, Test & Evaluation		30,509	30,664

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Defense Human Resources Activity	37,919	30,509				
Total Research, Development, Test & Evaluation	37,919	30,509				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
-----	-----	-----	-----
Defense Human Resources Activity		30,509	30,664
Total Research, Development, Test & Evaluation		30,509	30,664

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N S P.L. 117-103 Enactment**** e	S
131	0605021SE	Homeland Personnel Security Initiative	05	7,287	7,205					U
		System Development & Demonstration		7,287	7,205					
169	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	29,420	21,762					U
186	0303140SE	Information Systems Security Program	06	1,112	853					U
193	0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06	100	689					U
		Management Support		30,632	23,304					
Total Research, Development, Test & Eval, DW				37,919	30,509					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
131	0605021SE	Homeland Personnel Security Initiative	05		7,205	6,191	U
		System Development & Demonstration			7,205	6,191	
169	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06		21,762	23,757	U
186	0303140SE	Information Systems Security Program	06		853		U
193	0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06		689	716	U
		Management Support			23,304	24,473	
Total Research, Development, Test & Eval, DW					30,509	30,664	



UNCLASSIFIED

Defense Human Resources Activity  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N S P.L. 117-103 Enactment**** e	
131	0605021SE	Homeland Personnel Security Initiative	05	7,287	7,205					U
		System Development & Demonstration		7,287	7,205					
169	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	29,420	21,762					U
186	0303140SE	Information Systems Security Program	06	1,112	853					U
193	0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06	100	689					U
		Management Support		30,632	23,304					
Total Defense Human Resources Activity				37,919	30,509					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense Human Resources Activity  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
131	0605021SE	Homeland Personnel Security Initiative	05		7,205	6,191	U
		System Development & Demonstration			7,205	6,191	
169	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06		21,762	23,757	U
186	0303140SE	Information Systems Security Program	06		853		U
193	0808709SE	Defense Equal Opportunity Management Institute (DEOMI)	06		689	716	U
		Management Support			23,304	24,473	
Total Defense Human Resources Activity					30,509	30,664	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 11:57:16

**UNCLASSIFIED**

DoD Human Resources Activity • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
131	05	0605021SE	Homeland Personnel Security Initiative.....	Volume 5 - 717

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
169	06	0605803SE	R&D in Support of DOD Enlistment, Testing and Evaluation.....	Volume 5 - 733
186	06	0303140SE	DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation.....	Volume 5 - 753
193	06	0808709SE	Defense Equal Opportunity Management Institute (DEOMI).....	Volume 5 - 759

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

DoD Human Resources Activity • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation	0303140SE	186	06.....	Volume 5 - 753
Defense Equal Opportunity Management Institute (DEOMI)	0808709SE	193	06.....	Volume 5 - 759
Homeland Personnel Security Initiative	0605021SE	131	05.....	Volume 5 - 717
R&D in Support of DOD Enlistment, Testing and Evaluation	0605803SE	169	06.....	Volume 5 - 733

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 DoD Human Resources Activity** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	7.591	7.287	7.205	6.191	-	6.191	9.247	9.451	9.089	9.206	Continuing	Continuing
01: Homeland Security Presidential Directive (HSPD-12) Initiative	0.591	0.295	0.300	0.314	-	0.314	0.325	0.331	0.337	0.340	Continuing	Continuing
02: Enterprise Data Services (EDS)	4.200	4.195	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
03: Identity Credential Management (ICM)	2.800	2.797	6.905	5.877	-	5.877	8.922	9.120	8.752	8.866	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). RDT&E funds are applied to research security and standards compliance improvements for the CAC and the USID card, which provides identification for personnel not eligible for the CAC. Funding for the Identity Credential Management (ICM) program supports the DoD Chief Information Officer's Identity, Credential and Access Management (ICAM) initiatives

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	7.287	7.205	0.000	-	0.000
Current President's Budget	7.287	7.205	6.191	-	6.191
Total Adjustments	0.000	0.000	6.191	-	6.191
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	6.191	-	6.191

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative	<b>Project (Number/Name)</b> 01 / Homeland Security Presidential Directive (HSPD-12) Initiative
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
01: Homeland Security Presidential Directive (HSPD-12) Initiative	0.591	0.295	0.300	0.314	-	0.314	0.325	0.331	0.337	0.340	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Homeland Security Presidential Directive (HSPD-12) Initiative: HSPD-12 and the Federal Information Processing Standard (FIPS) Special Publication 201 require Federal Agencies to issue a Personal Identification Verification (PIV) card to enable rapid electronic authentication for all Government employees, uniformed service members, and contractors. Real-time Automated Personnel Identification System (RAPIDS) is the DoD enterprise capability that issues the Common Access Card (CAC) (DoD's implementation of the PIV card) and enables updates to DEERS, thus providing an enterprise-wide credential for both physical and logical access to DoD facilities and networks.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Real-time Automated Personnel Identification System (RAPIDS) /HSPD-12	0.295	0.300	0.314
<b>Description:</b> HSPD-12 requires rapid electronic authentication for all Government employees, uniformed individuals and contractors.			
<b>FY 2022 Plans:</b> HSPD-12: FY 2022 HSPD-12 RDT&E funds will be used to continue improved standards compliance and security of the CAC.			
<b>FY 2023 Plans:</b> HSPD-12: FY 2023 HSPD-12 RDT&E funds will be used to continue improved standards compliance and security of the Next Generation identity and credentialing (including CAC) capabilities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> HSPD-12: No change.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.295	0.300	0.314

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 01 / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>

**D. Acquisition Strategy**  
HSPD-12: Existing contract vehicles in place/General Services Administration.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 DoD Human Resources Activity** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative	<b>Project (Number/Name)</b> 01 / Homeland Security Presidential Directive (HSPD-12) Initiative
--	---	--

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Homeland Personnel Security Directive (HSPD-12) Initiative	C/IDIQ	Gulf Coast Enterprise : Pensacola, FL	0.591	0.295	Dec 2020	0.300		0.314		-		0.314	Continuing	Continuing	-
<b>Subtotal</b>			0.591	0.295		0.300		0.314		-		0.314	Continuing	Continuing	N/A

**Remarks**  
HSPD-12: RDT&E funds in HSPD-12 will extend through the FYDP and be applied to research and investigation of improved standards compliance and security of the CAC.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.591	0.295	0.300	0.314	-	0.314	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 DoD Human Resources Activity</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 01 / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Homeland Security Presidential Directive (HSPD-12)</i></b>	
HSPD-12	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 01 / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Homeland Security Presidential Directive (HSPD-12)</i>				
HSPD-12	1	2021	4	2021

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative	<b>Project (Number/Name)</b> 02 / Enterprise Data Services (EDS)
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
02: Enterprise Data Services (EDS)	4.200	4.195	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Project 2: Enterprise Data Services - supports the DoD CIO Identity, Credential and Access Management initiative to implement end-to-end digital services for person entities in support of DoD cybersecurity, interoperability, and secure information sharing across the Department and with mission partners. The enhancements to DMDC data repositories will implement a data centric approach to collect, verify, maintain, and share identity and other attributes. The development of new data attributes and services will enable authentication to DoD networks and resources through common standards, shared services and federation.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Enterprise Data Services	4.195	0.000	-
<b>Description:</b> Enterprise Data Services funding will update the data structures and attributes collected to secure trusted environments across the DoD so people can securely access all authorized resources based on mission need. These updates will also ensure DoD CIO has visibility of who and what is on the network at any point in time.			
<b>FY 2022 Plans:</b> Realigned program capability and funding to Identity Credential Management (ICM).			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> None.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.195	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 DoD Human Resources Activity Date: April 2022

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative	<b>Project (Number/Name)</b> 02 / Enterprise Data Services (EDS)
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Enterprise Data Services	C/IDIQ	DHRA : TBD	4.200	4.195	Jul 2021	0.000		-		-		-	-	-	-
<b>Subtotal</b>			4.200	4.195		0.000		-		-		-	-	-	N/A
<b>Project Cost Totals</b>			4.200	4.195		0.000		-		-		-	-	-	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 DoD Human Resources Activity</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 02 / <i>Enterprise Data Services (EDS)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Enterprise Data Services</i>																												
Enterprise Data Services																												

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Enterprise Data Services</i>																												
Enterprise Data Services																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 02 / <i>Enterprise Data Services (EDS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Enterprise Data Services</i></b>				
Enterprise Data Services	2	2020	2	2021



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Personnel Security Initiative				<b>Project (Number/Name)</b> 03 / Identity Credential Management (ICM)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
03: Identity Credential Management (ICM)	2.800	2.797	6.905	5.877	-	5.877	8.922	9.120	8.752	8.866	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). RDT&E funds are applied to research security and standards compliance improvements for the CAC and the USID card, which provides identification for personnel not eligible for the CAC. Funding for the Identity Credential Management (ICM) program supports the DoD Chief Information Officer's Identity, Credential and Access Management (ICAM) initiatives.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Identity Credential Management	2.797	6.905	5.877
<b>Description:</b> Identity and Credential Management establishes DHRA/DMDC as the Enterprise Identity and Credential Registration Service Provider for the Department of Defense. In this role, DMDC will develop improved identity federation solutions for Identity and Credentialing programs including CAC and Uniformed Services ID cards.			
<b>FY 2022 Plans:</b> FY 2022 RDT&E funds will be used to develop the full operating capability of the mission partner registration services and multi-factor authentication registration services. Develop and test a proof of concept to enhance self-service capabilities for the issuance of the Uniformed Services Identification Card (USID) card.			
<b>FY 2023 Plans:</b> FY 2023 RDT&E funding will now support Identity and Credential Management development support to include research and development of security and standards compliance improvements for the identity and credential solutions and continued research and development of self-service capabilities to expand the current self-service portfolio for remote identity proofing and credentialing capabilities, reducing in person transactions at RAPIDS sites, including CAC and Uniformed Services ID cards.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The budget is being re-phased to allow for better obligation rate execution. Execution of funds was in the fourth quarter, but has been re-phased to allow earlier execution in FY 2023. Program will incorporate the new initiative of Phase 1 of Operationalizing Zero Trust across the DoD.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.797	6.905	5.877

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 03 / <i>Identity Credential Management (ICM)</i>

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 DoD Human Resources Activity												Date: April 2022			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)					
0400 / 5					PE 0605021SE / Homeland Personnel Security Initiative					03 / Identity Credential Management (ICM)					
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Identity Credential Management	C/IDDQ	DHRA : TBD	2.800	2.797	Jul 2021	6.905		5.877		-		5.877	Continuing	Continuing	N/A
<b>Subtotal</b>			2.800	2.797		6.905		5.877		-		5.877	Continuing	Continuing	N/A
			Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract				
<b>Project Cost Totals</b>			2.800	2.797		6.905		5.877		-		5.877	Continuing	Continuing	N/A
<b>Remarks</b>															

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 03 / <i>Identity Credential Management (ICM)</i>

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Identity Credential Management</i></b>	
Identity Credential Management	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Identity Credential Management</i></b>	
Identity Credential Management	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Personnel Security Initiative</i>	<b>Project (Number/Name)</b> 03 / <i>Identity Credential Management (ICM)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Identity Credential Management</i></b>				
Identity Credential Management	1	2020	4	2021

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 DoD Human Resources Activity** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	37.202	29.420	21.762	23.757	-	23.757	25.911	25.817	26.328	28.006	Continuing	Continuing
1: Identity Credential Management (ICM)	0.000	4.116	2.892	4.112	-	4.112	6.416	5.706	5.202	5.254	Continuing	Continuing
2: Office of People Analytics (OPA), Testing and Assessment	6.769	4.761	6.935	9.824	-	9.824	10.674	11.266	12.119	12.774	Continuing	Continuing
3: Personnel Accountability (PA)	11.555	2.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
05: Federal Voting Assistance Program (FVAP)	1.471	0.692	0.791	0.809	-	0.809	0.836	0.852	0.868	0.876	Continuing	Continuing
6: Enterprise Data Services (EDS)	13.056	17.088	10.577	2.502	-	2.502	2.358	2.121	2.144	2.166	Continuing	Continuing
7: Defense Sexual Assault Incidents Database (DSAIID)	4.351	0.668	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
08: Personnel Accountability and Security (PAS)	0.000	0.000	0.567	0.883	-	0.883	0.000	0.000	0.000	0.821	Continuing	Continuing
09: Advanced Distributed Learning (ADL)	-	0.000	0.000	5.627	-	5.627	5.627	5.872	5.995	6.115	Continuing	Continuing

**Note**

PSA funding for the Defense Information System for Security (DISS) mission transferred to the Defense Counterintelligence and Security Agency (DCSA) beginning in FY 2021.

In accordance with the directive from the Office of the Under Secretary of Defense regarding identifying cyber-related funding, DHRA has established a Program Element (PE) for Cyber - 0303140SE. The following programs, EDS, EHRIS, PA, and PSA have transferred funding to that PE for FY 2021 and FY 2022 and are included in a separate R2 exhibit, with the exception of PSA. The Cyber funding portion for PSA will be transferred to the Defense Counterintelligence and Security Agency (DCSA) along with the non-cyber funding for the Defense Information System for Security (DISS) mission and is not seen on the R2 for the 0303140SE PE. The remaining PSA funding, along with all PA funding, will be moved into a new program, Personnel Accountability and Security (PAS) starting in FY 2022.

**A. Mission Description and Budget Item Justification**

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). This PE includes application of R&D to expedite prototype development and mission support efforts to sustain and/or modernize operations required for general RDT&E.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 DoD Human Resources Activity Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
--	--

Project 1: Identity Credential Management (ICM). DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people throughout their affiliation with DoD for identity protection, security, and entitlements and benefits verification. This funding supports evaluation and testing of emerging technologies that develop more robust and secure capabilities for the Department's ICM program. ICM will also research capabilities such as improved self-service solutions, and reusable-services that will enable more efficient credential delivery.

Project 2: Office of People Analytics (OPA) Testing and Assessment Division administers testing programs, which enable the Armed Services to select highly qualified military recruits. The DoD uses a single test, the Armed Services Vocational Aptitude Battery (ASVAB), to determine eligibility of military applicants and students (high school and post-secondary) and to report recruit quality data to Congress. Despite the implications of the COVID pandemic, high quality recruits obtained from administering the ASVAB annually remain at approximately 600,000 applicants for Military Service as part of the DoD Enlistment Testing program, and over 750,000 students remain in the ASVAB career exploration program. There has been no definitive change to this trend. Each Service also uses ASVAB test forms developed in this program as part of their in-service testing programs. This allows DoD to make measurement improvements as well as decreasing the likelihood of test compromise. Ongoing RDT&E efforts include development and evaluation of procedures which (1) reduce or eliminate threats to the validity of the ASVAB test scores generated; (2) improve the efficiency of the test development, calibration, and validation process; and (3) improve selection and classification decisions made by each Service through more effective use of test score information. In addition, periodic assessments are required to provide DoD manpower planners and Congress with information on aptitude trends in the population from which recruits are drawn.

Project 3: This program will transfer to Personnel Accountability and Security program as of FY 2022. The Personnel Accountability (PA) program is comprised of several systems undergoing development and testing, including the Synchronized Pre-deployment Operational Tracker Enterprise Suite (SPOT-ES) and Suite of Systems. The PA family of systems represents end-to-end tracking, reconciliation and reporting of DoD personnel location and movements, to include military, DoD affiliated civilians, DoD, DoS, USAID contractors, and U.S. citizens. This data includes DoD travel, contracts, and contractor personnel tracking in support of military operations, contingencies, military readiness, reporting of locations at the unit and person level, accountability of DoD personnel during (and after) natural or man-made disasters and accountability and visibility of noncombatant evacuees. This program will transfer to Personnel Accountability and Security (PAS) program as of FY 2022.

Project 05: The Federal Voting Assistance Program (FVAP) administers many of the federal responsibilities of the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) of 1986 and other federal military voter registration and assistance laws. FVAP works to ensure Service members, their eligible family members and overseas citizens are aware of their right to vote and have the tools and resources to successfully do so – from anywhere in the world. FVAP works to increase the level of awareness of available DoD voting assistance resources among Active Duty Members, in order to increase the likelihood of returning their absentee ballots. FVAP conducts voting research projects with States, local election jurisdictions and private entities to assist UOCAVA voters to register to vote and submit their absentee ballot and improve federal, State and local election processes and procedures.

Project 6: The Enterprise Data to Decisions Information Environment (EDDIE) introduces a streamlined way to provide person-based “data as a service” and “analytics as a service” to all of DoD and other Federal Agencies and will continue to expand DHRA data asset holding within the Advanced Analytics (ADVANA) platform. It enables and improves all types of analytics from standard reporting to more emergent and embedded predictive/prescriptive analytics. EDDIE will assist decision makers in forming relevant questions, retrieving pertinent information, and informing policy and program changes.



**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>	

Next Generation Data Delivery will prototype a streamlined methodology for sharing data with external partners. It will allow either a real-time or batch broker service to any major DMDC database, eventually including the PDR, USHRIS, and most others. Authorized customers will be able to receive automated, real-time updates directly from these databases. This project has the potential to improve customer service and improve transaction efficiency for data processing throughout the DMDC enterprise.

Project 7: Defense Sexual Assault Incident Database (DSAID). DSAID serves as the Department’s only centralized, case-level database for the collection and maintenance of information regarding sexual assaults involving Service members, via both Unrestricted and Restricted Reporting options. Also, DSAID accommodates a variety of uses, including the tracking of sexual assault victim support services, as well as supporting sexual assault prevention and response (SAPR) program administration, congressional reporting requirements, and data analysis. DSAID will also facilitate reports to Congress on claims of retaliation in connection with an Unrestricted Report of sexual assault made by or against a member of the Armed Forces, and serve as a repository for documents necessary for future victim support. Service Sexual Assault Response Coordinators (SARCs) use the system to track support to victims of sexual assault throughout the lifecycle of support requirements that facilitate sexual assault case transfer between SARCs and Services.

The DoD SAPR Office and Service headquarters-level users access the system as a management tool for statistical analysis, tracking, congressional and ad-hoc reporting, evaluating program effectiveness, conducting research, and case and business management. The system can easily export data for analysis in statistical applications, such as Statistical Package for the Social Sciences (SPSS) to facilitate analysis at the DoD-level. DSAID includes safeguards to shield personally identifiable information (PII) from unauthorized disclosure and stringent user access control in place.

Project 08: Personnel Accountability and Security (PAS) is a new program that subsumes the Personnel Accountability (PA) program with the remaining Personnel Security Assurance (PSA) program.

The Personnel Accountability and Security (PAS) program is comprised of several systems undergoing development and testing, including: Synchronized Pre-Deployment Operational Tracker Enterprise Suite (SPOT-ES). PAS will be using RDT&E money to evaluate and re-architect the PA Products and current structure of the portfolio. SPOT-ES will establish new automated permanent party billing reports for SPOT-ES and comply with Joint Interoperability Test Certification. NTS/ETAS will explore alternate software delivery solutions for stand-alone NTS kits.

Project 09: Advanced Distributed Learning (ADL) program is helping DoD evolve its distributed learning systems (e.g., online courses, smartphone-based learning, and DoD-wide enterprise systems for training and education). These improvements benefit DoD in several ways: (1) EFFICIENCY: Increase business systems’ efficiency, saving time and resources, by eliminating duplications and developing shared services for digital learning technology and data. (2) EFFECTIVENESS: Improve the quality and efficiency of training/education delivery via online systems by developing modern technologies, integrated data systems, and associated learning science, ultimately impacting personnel readiness.

This program was originally established in response to Section 378 of Public Law 105-261, the FY 1999 NDAA. The ADL program directly supports all DoD Components, and as a leader in the field of distributed learning technologies, also coordinates with other Federal agencies, Allies, and Partners. This leads to the

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 DoD Human Resources Activity	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
--	--

program’s third benefit: (3) INTEROPERABILITY: It strengthens interagency, interorganizational, and multinational interoperability by developing shared distributed learning capabilities and policy and through leadership in DoD, Federal, and Coalition communities of practice.

The program’s work falls into three interrelated categories: (A) Modernization, (B) Documentation, and (C) Coordination. The “modernization” work involves Advanced Technology Development (RDT&E subfield Advanced Technology Development 6.3) in technical areas such as e-learning, mobile learning, IT/data interoperability, learner data modeling and analytics, and associated learning science. These efforts inform the program’s “documentation” work, including the authoring and upkeep of technical guidance and policy documents, such as DoD Instruction 1322.26 (“Distributed Learning”) and software/data interoperability specifications. Finally, the documentation work drives “coordination” efforts, which consist of implementation support and interagency, interorganizational, and international (e.g., NATO) coordination.

This program’s modernization investments are vetted through the Defense ADL Advisory Committee, a working group of military personnel and DoD/Federal civilians who formally represent their organizations’ distributed learning interests. These requirements are also aligned to DoD/Federal strategic direction, such as the DoD Digital Modernization Strategy, DoD and Federal Data Strategies, and Personnel and Readiness Strategy for 2030. They are also considered against emerging industry trends and technologies.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	29.420	18.762	0.000	-	0.000
Current President's Budget	29.420	21.762	23.757	-	23.757
Total Adjustments	0.000	3.000	23.757	-	23.757
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	3.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	0.000	23.757	-	23.757

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project: 2: Office of People Analytics (OPA), Testing and Assessment**

Congressional Add: *FY 2022 Congressional Enacted - Program increase - implementation of the Independent Review Commission (IRC) on Sexual Assault in the Military.*

Congressional Add Subtotals for Project: 2

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
	-	3.000
	-	3.000
	-	3.000

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>	

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 1 / Identity Credential Management (ICM)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: Identity Credential Management (ICM)	0.000	4.116	2.892	4.112	-	4.112	6.416	5.706	5.202	5.254	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people throughout their affiliation with DoD for identity protection, security, and entitlements and benefits verification. This funding will support the evaluation and testing emerging technologies that will develop more robust and secure capabilities for the Department's ICM program. In FY 2023, ICM will continue with phase 2 of its modernization initiative to develop and test a proof of concept for the issuance of the Uniformed Services Identification Card (USID) card. In addition, this investment funding will be used to evaluate the feasibility to adopt reusable services, and to implement a web-based architecture to replace the legacy Real-time Automated Personnel Identification System and the Common Access Card (RAPIDS/CAC) infrastructure.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Identity Credential Management (ICM)	4.116	2.892	4.112
<p><b>Description:</b> DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people throughout their affiliation with DoD for identity protection, security, and entitlements and benefits verification. This funding will support the evaluation and testing emerging technologies that will develop more robust and secure capabilities for the Department's ICM program. ICM will also research capabilities such as improved self-service solutions, and reusable services that will enable more efficient credential delivery.</p> <p><b>FY 2022 Plans:</b> Design and develop architecture for enterprise identity management solutions for all eligible populations across all relevant identity products. Prioritize project solutions, phases, and complete full requirement documents. Research and evaluate reusable services as a means to modernize the Real-time Automated Personnel Identification System and the Common Access Card (RAPIDS/CAC) solution.</p> <p><b>FY 2023 Plans:</b> Continue development of reusable services for RAPIDS modernization and deliver one application for credentialing that reduces the RAPIDS footprint achieving more efficiencies by increasing RAPIDS maintainability.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 1 / Identity Credential Management (ICM)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The budget is being re-phased to allow for better obligation rate execution. Execution of funds was in the fourth quarter, but has been re-phased to allow earlier execution in FY 2023.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.116	2.892	4.112

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 2 / Office of People Analytics (OPA), Testing and Assessment			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2: Office of People Analytics (OPA), Testing and Assessment	6.769	4.761	6.935	9.824	-	9.824	10.674	11.266	12.119	12.774	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The primary mission of OPA Testing and Assessment is to test and implement more accurate methods of assessing aptitudes required for military enlistment, success in training, and performance on the job. Also, it includes implementing methods that are useful in the identification of persons with the high aptitudes required by today's smaller and more technically demanding military.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Office of People Analytics (OPA), Testing and Assessment	4.761	3.935	9.824
<b>FY 2022 Plans:</b> These funds will be used to begin/continue the following efforts: to (1) conduct studies to aid in the evaluation of the differential validity of the current ASVAB, (2) develop a comprehensive ASVAB validity argument focused on classification uses, (3) provide guidance and recommendations for ways in which the ASVAB could be modernized with regard to the content and format of existing subtests, constructs being measured, and technical approaches to test administration and scoring, (4) provide a monitoring plan for the implementation of a new platform that expands the reach of ASVAB by making it available on a variety of mobile devices, (5) conduct research on new non-verbal measures (e.g., Complex Reasoning) being developed for possible inclusion on the ASVAB battery, and (6) conduct research with the goal of improving recruitment efficiency by making use of available social media data to predict performance on ASVAB and other relevant military entrance standards.			
<b>FY 2023 Plans:</b> These funds will be used to continue the following efforts: to (1) continue Next Generation ASVAB testing efforts by determining an underlying AFQT/ASVAB philosophy to guide AFQT and ASVAB content decisions, (2) expand the validity argument endeavors for AFQT and ASVAB by evaluating a meta-model for explaining military job performance, (3) evaluate the need for re-norming the ASVAB and generate a methodology and plan for annually evaluating the need for re-norming the ASVAB, (4) investigate ways to optimally select enlistees in a way that balances both training performance and diversity goals, (5) explore the efficacy of using machine learning methods to predict IRT item parameters using prior information to improve ASVAB form development and reduce calibration sample sizes, and (6) continue research on new non-verbal measures (e.g., Complex Reasoning) being developed for possible inclusion on the ASVAB battery, including the development of an automated tool to generate Complex Reasoning items.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 2 / Office of People Analytics (OPA), Testing and Assessment
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
The funding requirements for some ASVAB studies are slightly reduced in FY 2022 as they begin but will ramp back up as the research accelerates in FY 2023 and beyond. Funding includes the addition of Advanced Distributed Learning (ADL), and program increase to the Office of People Analytics (OPA) for the Authorize Operational Testing of the Air Force Compatibility Assessment, and the Armed Forces Vocational Aptitude Battery (ASVAB) enhancements.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.761	3.935	9.824

	FY 2021	FY 2022
<b>Congressional Add:</b> FY 2022 Congressional Enacted - Program increase - implementation of the Independent Review Commission (IRC) on Sexual Assault in the Military.	-	3.000
<b>FY 2022 Plans:</b> IRC: Authorize Operational Testing of the Air Force Compatibility Assessment.		
<b>Congressional Adds Subtotals</b>	-	3.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 3 / Personnel Accountability (PA)
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3: Personnel Accountability (PA)	11.555	2.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

The PA program is comprised of two sub-programs: Synchronized Pre-deployment and Operational Tracker (SPOT) and Joint Personnel Accountability Reconciliation and Reporting (JPARR). This family of systems represents end-to-end tracking, reconciliation and reporting of DoD personnel location and movements, to include military, DoD affiliated civilians, DoD, DOS and USAID contractors, and U.S. citizens. This includes DoD contracts, and contractor personnel tracking in support of military operations, contingencies, military readiness, reporting of locations at the unit and person level, accountability of DoD personnel during (and after) natural or man-made disasters, and accountability and visibility of noncombatant evacuees. SPOT is the DoD, DOS and USAID system of record for accountability and visibility of contracts and contractor personnel authorized to operate in contingency and military operations.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Personnel Accountability (PA)	2.095	0.000	-
<b>FY 2022 Plans:</b> None.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> None.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.095	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 05 / Federal Voting Assistance Program (FVAP)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
05: Federal Voting Assistance Program (FVAP)	1.471	0.692	0.791	0.809	-	0.809	0.836	0.852	0.868	0.876	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

FVAP administers many of the federal responsibilities of the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) of 1986 and other federal military voter registration and assistance laws. FVAP works to ensure Service members, their eligible family members and overseas citizens are aware of their right to vote and have the tools and resources to successfully do so – from anywhere in the world. FVAP works to increase the likelihood of interested Active Duty Members to use available FVAP resources to increase their level of awareness of available DoD voting assistance resources, which will increase the likelihood of returning their absentee ballot. FVAP conducts voting research projects with States, local election jurisdictions and private entities to assist UOCAVA voters to register to vote and submit their absentee ballot and improve federal, State and local election processes and procedures.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Federal Voting Assistance Program	0.692	0.791	0.809
<b>Description:</b> Federal Voting Assistance Program (FVAP) requires a research and analysis policy clearinghouse program that continues to research and present the value of key policy and technology topics that connects to the successful return of absentee balloting materials from military and overseas citizen voters pursuant to the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA).			
<b>FY 2022 Plans:</b> The Federal Voting Assistance Program (FVAP) will utilize RDT&E funding to research and present the value of key policy and technology topics that connects to the successful return of absentee balloting materials from military and overseas citizen voters pursuant to the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA).			
<b>FY 2023 Plans:</b> The Federal Voting Assistance Program (FVAP) will continue to utilize RDT&E funding to research and present the value of key policy and technology topics that connects to the successful return of absentee balloting materials from military and overseas citizen voters pursuant to the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA).			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> There are no significant changes in funding from FY 2022 to FY 2023.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.692	0.791	0.809

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 05 / Federal Voting Assistance Program (FVAP)

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 6 / Enterprise Data Services (EDS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
6: Enterprise Data Services (EDS)	13.056	17.088	10.577	2.502	-	2.502	2.358	2.121	2.144	2.166	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Supports research and development efforts on two critical projects, JOM and EDDIE. The Joint Officer Management (JOM) modernization initiative supports improvements in the Joint Manpower Information System’s (JMIS) automation, reliability, accuracy, and system interoperability of the program that tracks and manages joint personnel officer readiness capability. The Enterprise Data to Decisions Information Environment (EDDIE) introduces a streamlined way to provide person based “data as a service” and “analytics as a service” to all of DoD and other Federal Agencies.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Enterprise Data Services (EDS)	17.088	10.577	2.502
<p><b>Description:</b> Enterprise Data Management (EDS) is addressing three critical projects in FY 2022: 1) JOM and 2) EDDIE and 3) Next Generation Data Delivery prototype. The Joint Officer Management (JOM) modernization initiative supports improvements in the Joint Manpower Information System’s (JMIS) automation, reliability, accuracy, and system interoperability to enable the Department to more effectively comply with Title 10 management requirements of Joint Duty Officers in the Active and Reserve forces, and improve the sight picture of joint officer personnel capabilities and readiness for the SECDEF and the Chairman, Joint Chiefs of Staff (CJCS). EDDIE introduces a streamlined way to provide person based “data as a service” and “analytics as a service” to all of DoD and other Federal Agencies. Major new development within EDDIE will largely be completed with FY 2022, including the Research Enclave, allowing external customers to perform their own research within a secure, de-identified DHRA hosted environment. Development will begin for Next Generation Data Delivery (NGDD). NGDD Next Generation Data Delivery provides an automated means to share data externally to authorized users from any major DMDC data holding. DHRA will build the initial prototype for NGDD in FY 2022, including real-time broker service to the Person Data Repository (PDR).</p> <p><b>FY 2022 Plans:</b>                      Redesign and consolidation of the new JOM mission environment, based on increased scale and usage throughout FY 2022.                      Confirmation and expansion of the COTS access management solution.                      Development of complex ad-hoc reporting models.                      Develop API between ADVANA reporting capability and external data services.                      Expand DHRA asset data holdings within the ADVANA platform                      Integrate reporting application capabilities from stand-alone systems into ADVANA.                      Finalize the Civilian Personnel data warehouse.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 6 / Enterprise Data Services (EDS)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Development of research enclave in ADVANA. Next Generation Data Delivery prototype will begin implementation of initial operating functionality.  <b>FY 2023 Plans:</b> Complete prototype functionality for Next Generation Data Delivery (NGDD). Begin development to support full operating capacity. This includes real-time and batch broker services to additional DMDC databases for authorized customers.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> The EDS project decreases from FY 2022 to FY 2023 supports decreased levels of effort for both the JOM modernization project and the EDDIE project. JOM modernization will be continuing production fielding and interface integration efforts through FY 2022 and will be complete by FY 2023. EDDIE development in FY 2022 will move into the third and final phase of implementation and will be complete by FY 2023. Initial development for the Next Generation Data Delivery prototype will begin in FY 2022 and move toward additional operating capacity in FY 2023.			
<b>Accomplishments/Planned Programs Subtotals</b>	17.088	10.577	2.502

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A  <b>Remarks</b>  <b>D. Acquisition Strategy</b> N/A
--

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation			<b>Project (Number/Name)</b> 7 / Defense Sexual Assault Incidents Database (DSAID)				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>7: Defense Sexual Assault Incidents Database (DSAID)</i>	4.351	0.668	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Defense Sexual Assault Incident Database (DSAID) is the integrated sexual assault prevention and response data collection and reporting system that accommodates a variety of uses, including the tracking of sexual assault victim support services, supports program administration, congressional reporting requirements and ad-hoc queries, and data analysis.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Defense Sexual Assault Incidents Database (DSAID)	0.668	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	0.668	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 08 / Personnel Accountability and Security (PAS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
08: Personnel Accountability and Security (PAS)	0.000	0.000	0.567	0.883	-	0.883	0.000	0.000	0.000	0.821	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The PAS program is comprised of the following sub-programs: Defense Personnel Accountability Systems (DPAS), Noncombatant Evacuation Operations (NEO) Tracking System (NTS). Joint Personnel Accountability Reconciliation and Reporting (JPARR), Personnel Accountability Reporting System, and Synchronized Pre-deployment and Operational Tracker (SPOT). Personnel Accountability systems support end-to-end tracking, reconciliation and reporting of DoD personnel location and movements, to include military, DoD affiliated civilians, DoD, DOS, USAID contractors, and U.S. citizens. PAS will be using RDT&E money to evaluate and re-architect the PA Products and current structure of the portfolio.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Personnel Accountability and Security (PAS)	-	0.567	0.883
<b>Description:</b> Established new program, "Personnel Accountability and Security (PAS) which incorporates the prior Personnel Accountability and Personnel Security programs.			
<b>FY 2022 Plans:</b> -Develop capabilities for SPOT to allow for subsequent deployments / Letter of Authorization to be staged in SPOT for rapid approval upon contract option year awards. - Develop capabilities for SPOT to allow for bulk updates of key dynamic data fields to increase SPOT data quality. - NTS: Develop and enhance the current software to address new and emerging evacuation and tracking requirements by Combatant Commands, other federal agencies, and stakeholders.			
Complete the SPOT and JAMMS Joint Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, Facilities, & Policy (DOTmLPP-P) Change Recommendation for Operational Contract Support enhancements.			
<b>FY 2023 Plans:</b> Restructure Personnel Accountability Applications; Evaluate programs identify redundancies, and plan for improvements. -SPOT-ES: Enhance capabilities for compliance with DoDI 8330.01; Establish permanent party PLACO Reports -NTS/ETAS: Research new cyber compliant and cost effective methods of software delivery to stand-alone hardware kits			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 08 / Personnel Accountability and Security (PAS)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
FY 2022 funds were decreased and re-phased to FY 2023 and FY 2024 to support program timelines, ensuring implementation of NTS software solutions and the PA Product Restructure can be executed.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	0.567	0.883

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> 09 / Advanced Distributed Learning (ADL)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
09: <i>Advanced Distributed Learning (ADL)</i>	-	0.000	0.000	5.627	-	5.627	5.627	5.872	5.995	6.115	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Advanced Distributed Learning (ADL) program is helping DoD evolve its distributed learning systems (e.g., online courses, smartphone-based learning, and DoD-wide enterprise systems for training and education). These improvements benefit DoD in several ways: (1) **EFFICIENCY:** Increase business systems' efficiency, saving time and resources, by eliminating duplications and developing shared services for digital learning technology and data. (2) **EFFECTIVENESS:** Improve the quality and efficiency of training/education delivery via online systems by developing modern technologies, integrated data systems, and associated learning science, ultimately impacting personnel readiness.

This program was originally established in response to Section 378 of Public Law 105-261, the FY 1999 NDAA. The ADL program directly supports all DoD Components, and as a leader in the field of distributed learning technologies, also coordinates with other Federal agencies, Allies, and Partners. This leads to the program's third benefit: (3) **INTEROPERABILITY:** It strengthens interagency, interorganizational, and multinational interoperability by developing shared distributed learning capabilities and policy and through leadership in DoD, Federal, and Coalition communities of practice.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Advanced Distributed Learning (ADL)	0.000	-	5.627
<b>Description:</b> Advance Distributed Learning (ADL) program serves as the innovation hub for distributed learning across DoD and other government agencies. The ADL program supports DoD-wide initiatives for innovation, modernization, and advancement of online and mobile electronic training capabilities as well as associated enterprise-wide software/data services. Activities include advanced technology design and development, demonstrations, assessments, and associated policy stewardship. Results improve efficiencies and reduce costs, in part, by reducing time spent in face-to-face instruction, allowing more time for practical application and repetition, increasing interoperability (which enables discovery, retrieval, and reuse of distributed learning content), and researching and prototyping methods of distributed learning with superior motivational and learning outcomes.			
<b>FY 2023 Plans:</b>			
1. Enterprise Course Catalog – Transition the initial operational capability to active use, and focus research and development efforts on improving its user experience and functional capabilities (e.g., identity management, single sign-on) as well as governance of the associated data model (i.e., learning activity metadata). Coordinate with the DoD CDO Council, Enterprise Digital Learning Modernization executive steering committee, and DoD organizations for additional requirements, testing, governance development, and transition of this capability.			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 DoD Human Resources Activity		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 09 / Advanced Distributed Learning (ADL)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>2. Enterprise Learner Record Repository -- Finalize the learner profile data standard. Conduct testing and evaluation to support transition of the prototype system into operational use. Coordinate with DoD organizations that own authoritative sources of learner data on an implementation plan, including cybersecurity considerations for federated personal data. Begin work on a Privacy API to allow learners to manage their personal privacy settings across connected devices.</p> <p>3. Learning Services Ecosystem -- Develop tools, scripts, and technologies for connecting TLA data resources. Begin development of an automation toolkit to promote the integration of legacy digital learning systems, so they can leverage TLA data resources. Improve the associated TLA DevSecOps pipeline to better support implementation across DoD, with tech insertions and updates based on requirements or guidance from DoD Components and the EDLM executive steering committee.</p> <p>4. Update Distributed Learning Policy -- Continue to coordinate with the Defense ADL Advisory Committee to incorporate new requirements into existing Defense policy, as required. Work also continues with the IEEE (Institute of Electrical and Electronics Engineers voluntary consensus standards organization) on developing, implementing, and governing learning technology standards.</p> <p>5. Coordination -- Continue to coordinate with Defense Allies and Partners on distributed learning, to include the NATO Training Group, Partnership for Peace Consortium, and The Technical Cooperation Program. Work with DoD groups (e.g., Defense ADL Advisory Committee, CDO Council, Joint Enterprise Standards Committee) and professional technical organizations to enact and govern software/data standards and digital learning science.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Program is transferring to DHRA from OUSD Personnel and Readiness (P&amp;R) in FY 2023.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	-	5.627

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>
<b>D. Acquisition Strategy</b> N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 DoD Human Resources Activity** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0303140SE / DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	1.112	0.853	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: Enterprise Data Services (EDS)	0.000	0.774	0.853	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
2: Identity Credential Management (ICM)	0.000	0.262	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
3: Personnel Accountability (PA)	0.000	0.076	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). This PE includes application of R&D to support cybersecurity improvements across the DHRA enterprise.

Project 1: Enterprise Data Services (EDS). Supports the cybersecurity activities related to DMDC's EDS mission. In FY 2022, EDS is addressing a critical project to modernization the Joint Officer Management (JOM) system. The legacy system JOM system was built in the 1990s and requires extensive redevelopment to resolve existing security issues and ensure new development complies with Department cybersecurity policies. This funding will be used to obtain support from cybersecurity experts during development.

Project 2: Identity Credential Management (ICM). DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people during and after their affiliation with DoD for identity protection, security, entitlements, and benefits verification. This funding will support the evaluation and testing emerging technologies that will develop more robust and secure capabilities for the Department's ICM program, including the analysis of the security posture of these technologies. This project ends in FY 2021.

Project 3: Personnel Accountability (PA). This program is comprised of several systems, including: Synchronized Pre-Deployment Operational Tracker Enterprise Suite (SPOT-ES), Joint Personnel Accountability Reconciliation and Reporting (JPARR), Defense Travel System (DTS)/Defense Travel System Modernization and Noncombatant Evacuation Operations (NEO) Tracking System (NTS). This family of systems represents end-to-end tracking, reconciliation and reporting of DoD personnel location and movements, to include military, DoD affiliated civilians, DoD, DoS and USAID contractors and U.S. citizens. This includes DoD travel, contracts, and contractor personnel tracking in support of military operations, contingencies, military readiness, reporting of locations at the unit and person level, accountability of DoD personnel during (and after) natural or man-made disasters and accountability and visibility of noncombatant evacuees. This funding will be used to obtain support from cybersecurity experts during the modernization of these systems. This project ends in FY 2021.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 DoD Human Resources Activity	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303140SE / <i>DHRA Cyber - R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	1.112	0.853	0.000	-	0.000
Current President's Budget	1.112	0.853	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

The increase from FY 2021 to FY 2022 supports the JOM cyber requirements including finalizing the production ATO.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0303140SE / DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 1 / Enterprise Data Services (EDS)
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1: Enterprise Data Services (EDS)	0.000	0.774	0.853	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Supports cybersecurity research and development efforts on the Joint Officer Management (JOM) modernization initiative. The JOM modernization initiative will support cybersecurity improvements to the program that tracks and manages joint personnel officer readiness capability.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Enterprise Data Services (EDS)	0.774	0.853	0.000
<b>Description:</b> Supports cybersecurity research and development efforts on two critical projects, the Joint Officer Management (JOM) modernization initiative and Enterprise Data to Decisions Information Environment (EDDIE).			
<b>FY 2022 Plans:</b> Revise JOM Risk Management Framework assessment and audit for Authority to Operate. Complete revised JOM Privacy Impact Assessment and System of Records Notice.			
<b>FY 2023 Plans:</b> N/A.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> This work will be complete in FY 2022.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.774	0.853	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0303140SE / DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 2 / Identity Credential Management (ICM)
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
2: Identity Credential Management (ICM)	0.000	0.262	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people during and after their affiliation with DoD for identity protection, security, entitlements, and benefits verification. This funding will support the evaluation and testing emerging technologies that will develop more robust and secure capabilities for the Department's ICM program, including the analysis of the security posture of these technologies.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Identity Credential Management (ICM)	0.262	0.000	-
<b>Description:</b> DMDC executes DHRA's responsibility to provide a central source of identification and authorization of people during and after their affiliation with DoD for identity protection, security, entitlements, and benefits verification. This funding will support the evaluation and testing emerging technologies that will develop more robust and secure capabilities for the Department's ICM program, including the analysis of the security posture of these technologies.			
<b>FY 2022 Plans:</b> None. This project has completed in FY 2021.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> This project has completed in FY 2021.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.262	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0303140SE / DHRA Cyber - R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> 3 / Personnel Accountability (PA)
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3: Personnel Accountability (PA)	0.000	0.076	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Personnel Accountability program is comprised of several systems, including: Synchronized Pre-Deployment Operational Tracker Enterprise Suite (SPOT-ES), Joint Personnel Accountability Reconciliation and Reporting (JPARR), Defense Travel System (DTS)/Defense Travel System Modernization and Noncombatant Evacuation Operations (NEO) Tracking System (NTS). This funding will be used to obtain support from cybersecurity experts during the modernization of these systems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Personnel Accountability (PA)	0.076	0.000	-
<b>Description:</b> The Personnel Accountability program is comprised of several systems, including: Synchronized Pre-Deployment Operational Tracker Enterprise Suite (SPOT-ES), Joint Personnel Accountability Reconciliation and Reporting (JPARR), Defense Travel System (DTS)/Defense Travel System Modernization and Noncombatant Evacuation Operations (NEO) Tracking System (NTS). This funding will be used to obtain support from cybersecurity experts during the modernization of these systems.			
<b>FY 2022 Plans:</b> None. This project has completed in FY 2021 and the program has been realigned to the newly established "Personnel Accountability and Security."			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> This project has completed in FY 2021.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.076	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0808709SE / <i>Defense Equal Opportunity Management Institute (DEOMI)</i>
--	--

COST (\$ in Millions)	Prior Years <sup>(+)</sup>	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.100	0.100	0.689	0.716	-	0.716	0.736	0.312	0.771	0.778	Continuing	Continuing
1: <i>Defense Equal Opportunity Management Institute (DEOMI)</i>	0.100	0.100	0.689	0.716	-	0.716	0.736	0.312	0.771	0.778	Continuing	Continuing

<sup>(+)</sup> The sum of all Prior Years is \$0.000 million less than the represented total due to several projects ending

**A. Mission Description and Budget Item Justification**

DEOMI's mission is to develop and deliver innovative education, training, research and collaborative solutions to optimize total force readiness.

To accomplish this mission, DEOMI uses RDT&E funds to support the management of both basic and applied research initiatives/programs. This includes:

- The research, development, testing, evaluation, and transition of new DEOMI training and curriculum, advanced technologies, human relations job-aids, research publications and recommendations. Studies on a broad array of human relations topics to include on how leadership, human relations, culture, and other related topics impact individuals, units, families, organizations and their performance both positively and negatively. In addition DEOMI will seek to understand the role of inclusive behaviors has on well-being and performance.
- Policy, program, and strategy development support to DMOC, ODEI, DHRA, OFR, the Services and other DoD organizations.
- DEOMI's Summer Faculty Research Program, Summer STEM internship program, and other formal and informal collaborations with external academic, research, government agencies across the world.

Together, these initiatives ensure DEOMI fields up-to-date training programs and deploys cutting edge training and support technologies / materials across the DoD. This is required by Executive Orders 13111 and 13218, which mandate all federal agencies to take full advantage of technological advances to educate and train the workforce, to ensure employees acquire the skills and learning needed to succeed in a changing workplace, and to report on the training technologies used.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 DoD Human Resources Activity	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0808709SE / <i>Defense Equal Opportunity Management Institute (DEOMI)</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.100	0.689	0.000	-	0.000
Current President's Budget	0.100	0.689	0.716	-	0.716
Total Adjustments	0.000	0.000	0.716	-	0.716
• Congressional General Reductions	0.000	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	0.716	-	0.716

**Change Summary Explanation**

DEOMI is transitioning to become the Defense Culture Institute and as such is taking on expanded mission areas with respect to supporting the DoD's Culture, Diversity, Inclusion, and Equity needs. The research will inform policy, training, education, programs, and operations that rely so heavily on a diverse total force of military, civilian, and contractors.

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 DoD Human Resources Activity **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0808709SE / Defense Equal Opportunity Management Institute (DEOMI)	<b>Project (Number/Name)</b> 1 / Defense Equal Opportunity Management Institute (DEOMI)
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
1: Defense Equal Opportunity Management Institute (DEOMI)	0.100	0.100	0.689	0.716	-	0.716	0.736	0.312	0.771	0.778	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Transfer from the U.S. Air Force

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Defense Equal Opportunity Management Institute (DEOMI)	0.100	0.689	0.716
<b>Description:</b> DEOMI's mission is to develop and deliver world-class human relations education, training, research and innovative solutions to enhance total force readiness.			
<b>FY 2022 Plans:</b> FY 2022 program will support DEOMI's transition to a Center of Excellence for Diversity, Inclusion, and Equity. Research will support expanded mission areas and inform policy, training, education, and programs to enhance total force readiness.			
<b>FY 2023 Plans:</b> FY 2023 program continues with its mission to develop and deliver world-class human relations education, training, research and innovative solutions to enhance total force readiness.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> No significant change, program remains consistent with the FY 2022 expanded mission.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.100	0.689	0.716

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

DEOMI transferred to DHRA in FY 2020 from the U.S. Air Force.

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Operational Test and Evaluation, Defense**  
*Defense-Wide Justification Book Volume 5 of 5*  
***Operational Test and Evaluation, Defense***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Operational Test and Evaluation, Defense • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 767**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 775**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 777**  
**Exhibit R-2s..... Volume 5 - 779**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022		FY 2022		FY 2022	
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****		
Operational Test & Eval, Defense	257,120	276,591						
Total Research, Development, Test & Evaluation	257,120	276,591						

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Operational Test & Eval, Defense		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<b>Summary Recap of Budget Activities</b> -----						
Management Support	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				
<b>Summary Recap of FYDP Programs</b> -----						
Research and Development	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194
Summary Recap of FYDP Programs -----			
Research and Development		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Management Support	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				
Summary Recap of FYDP Programs -----						
Research and Development	257,120	276,591				
Total Research, Development, Test & Evaluation	257,120	276,591				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194
Summary Recap of FYDP Programs -----			
Research and Development		276,591	277,194
Total Research, Development, Test & Evaluation		276,591	277,194

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	S
						Division B P.L. 117-43 Enactment*	Division B P.L. 117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	
1	0605118	OTE Operational Test and Evaluation	06	113,133	105,394					U
2	0605131	OTE Live Fire Test and Evaluation	06	74,048	103,549					U
3	0605814	OTE Operational Test Activities and Analyses	06	69,939	67,648					U
		Management Support		257,120	276,591					
Total Operational Test & Eval, Defense				257,120	276,591					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
1	0605118	OTE Operational Test and Evaluation	06		105,394	119,529	U
2	0605131	OTE Live Fire Test and Evaluation	06		103,549	99,947	U
3	0605814	OTE Operational Test Activities and Analyses	06		67,648	57,718	U
		Management Support			276,591	277,194	
Total Operational Test & Eval, Defense					276,591	277,194	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 15:15:56



**UNCLASSIFIED**

Operational Test and Evaluation, Defense • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0460: Operational Test and Evaluation, Defense***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
1	06	0605118OTE	Operational Test and Evaluation (OT&E).....	Volume 5 - 779
2	06	0605131OTE	Live Fire Test and Evaluation (LFT&E).....	Volume 5 - 785
3	06	0605814OTE	Operational Test Activities and Analyses.....	Volume 5 - 803

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

Operational Test and Evaluation, Defense • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Live Fire Test and Evaluation (LFT&E)	0605131OTE	2	06.....	Volume 5 - 785
Operational Test Activities and Analyses	0605814OTE	3	06.....	Volume 5 - 803
Operational Test and Evaluation (OT&E)	0605118OTE	1	06.....	Volume 5 - 779

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	93.291	113.133	105.394	119.529	-	119.529	123.601	127.056	129.036	130.743	Continuing	Continuing
000310: <i>OT&amp;E</i>	93.291	113.133	105.394	119.529	-	119.529	123.601	127.056	129.036	130.743	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Director, Operational Test and Evaluation (DOT&E) was created by Congress in 1983. The Director is prescribed, by authority of the Secretary of Defense, policies and procedures for the conduct of operational test and evaluation (OT&E) in the Department of Defense (DOD). The Director provides guidance to and consult with the Secretary of Defense, the Under Secretary of Defense for Acquisition and Sustainment, and the Under Secretary of Defense for Research and Engineering and the Secretaries of the military departments with respect to OT&E in the DOD in general and to specific OT&E to be conducted in the department. Generally, there are about 235 programs on the oversight list including all Major Defense Acquisition Programs (MDAP) and programs across each of the six adaptive acquisition pathways. Programs identified as MDAPs for the purposes of test and evaluation may not proceed beyond low-rate initial production (BLRIP) until OT&E of the program is complete. DOT&E is involved early in the planning phase of each program to ensure adequate testing is planned and executed. Key elements of DOT&E's oversight authority include:

- Approval of component Test and Evaluation Master Plans (TEMPS).
- Approval of component OT&E Test Plans (TPs).
- Oversight of military department preparation and conduct of field operational tests; analysis and evaluation of the resultant test data; the assessment of the adequacy of the executed test and evaluation; and assessment of the operational effectiveness, lethality, and suitability of the weapon systems.
- Reporting results of OT&E that support BLRIP decisions to the Secretary of Defense and Congress, and providing an annual report summarizing all OT&E activities and the adequacy of test resources within DOD during the previous fiscal year.
- Review of DOD budgets and financial matters related to OT&E, and recommendations to the Secretary of Defense on all matters relating to operational test facilities and equipment.

DOT&E also oversees and resources OT&E community efforts to plan and execute joint cybersecurity assessments of fielded systems and networks during major Combatant Command (CCMD) and Service exercises, and reports the trends and findings in the annual report. DOT&E is also involved in assessing and increasing the capacity of realistically advanced cyber warfighting capabilities to keep pace with heightened demand, advancing technologies and the growing cyber threat.

This Program Element includes funds to obtain Federally Funded Research and Development Center (FFRDC) support in performing the described tasks, travel funds to carry out oversight of the OT&E and cyber assessment programs, funds for Service teams performing information assurance and interoperability assessments during exercises, administrative support services, DFAS support, and engineering and technical support services.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	113.133	105.394	0.000	-	0.000
Current President's Budget	113.133	105.394	119.529	-	119.529
Total Adjustments	0.000	0.000	119.529	-	119.529
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment to Budget Year	-	-	119.529	-	119.529

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. Increased funding that begins in FY 2023 will expand cybersecurity assessments of artificial intelligence (AI) enabled technologies deployed to CCMDs under the Department's Advanced Data Analytics initiative, increase coverage for Persistent Cyber Operations (PCO) activities, and increase cyber threat realism.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 000310 / <i>OT&amp;E</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000310: <i>OT&amp;E</i>	93.291	113.133	105.394	119.529	-	119.529	123.601	127.056	129.036	130.743	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Director, Operational Test and Evaluation (DOT&E) was created by Congress in 1983. The Director is prescribed, by authority of the Secretary of Defense, policies and procedures for the conduct of operational test and evaluation (OT&E) in the Department of Defense (DOD). The Director provides guidance to and consult with the Secretary of Defense, the Under Secretary of Defense for Acquisition and Sustainment, and the Under Secretary of Defense for Research and Engineering and the Secretaries of the military departments with respect to OT&E in the DOD in general and to specific OT&E to be conducted in the department. Generally, there are about 235 programs on the oversight list including all Major Defense Acquisition Programs (MDAP) and programs across each of the six adaptive acquisition pathways. Programs identified as MDAPs for the purposes of test and evaluation may not proceed beyond low-rate initial production (BLRIP) until OT&E of the program is complete. DOT&E is involved early in the planning phase of each program to ensure adequate testing is planned and executed. Key elements of DOT&E's oversight authority include:

- Approval of component Test and Evaluation Master Plans (TEMPS).
- Approval of component OT&E Test Plans (TPs).
- Oversight of military department preparation and conduct of field operational tests; analysis and evaluation of the resultant test data; the assessment of the adequacy of the executed test and evaluation; and assessment of the operational effectiveness, lethality, and suitability of the weapon systems.
- Reporting results of OT&E that support BLRIP decisions to the Secretary of Defense and Congress, and providing an annual report summarizing all OT&E activities and the adequacy of test resources within DOD during the previous fiscal year.
- Review of DOD budgets and financial matters related to OT&E, and recommendations to the Secretary of Defense on all matters relating to operational test facilities and equipment.

DOT&E also oversees and resources OT&E community efforts to plan and execute joint cybersecurity assessments of fielded systems and networks during major Combatant Command (CCMD) and Service exercises, and reports the trends and findings in the annual report. DOT&E is also involved in assessing and increasing the capacity of realistically advanced cyber warfighting capabilities to keep pace with heightened demand, advancing technologies and the growing cyber threat.

This Program Element includes funds to obtain Federally Funded Research and Development Center (FFRDC) support in performing the described tasks, travel funds to carry out oversight of the OT&E and cyber assessment programs, funds for Service teams performing information assurance and interoperability assessments during exercises, administrative support services, DFAS support, and engineering and technical support services.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Operational Test and Evaluation	113.133	105.394	119.529
<b>Description:</b> Operational Test and Evaluation (OT&E) Oversight			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 000310 / <i>OT&amp;E</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>This effort is in direct support of the Director’s Title 10 responsibilities and is a continuing effort. Funding for Fiscal Year 2023 provides OT&amp;E inputs for TEMP’s, TP’s, System Acquisition Reports, and Defense Acquisition Executive Summary Reports for those programs designated for oversight by DOT&amp;E. The Key elements are identified in the DOD Instructions signed by the DOT&amp;E and the Under Secretary of Defense (Research &amp; Evaluation). This also includes funding for congressionally mandated Test &amp; Evaluation (T&amp;E) oversight of all middle tier of acquisition programs and programs utilizing other Accelerated Acquisition authorities. This includes the development of independent T&amp;E concepts for such programs, review of programs’ T&amp;E strategies; observation of relevant test events to ensure compliance with TP’s; independent data analysis and development of reports to Secretary of Defense and Congress on all matters related to test adequacy and demonstrated operational effectiveness, suitability, survivability and lethality.</p> <p><b>FY 2022 Plans:</b> Cyber Evaluations DOT&amp;E plans to sponsor approximately 50 CCMD and Service cybersecurity assessments and Cyber Readiness Campaign (CRC) events in FY 2022. Each assessment will continue to include “Find-Fix-Verify” efforts to facilitate the remediation of identified vulnerabilities and verify that solutions and mitigations improve warfighter mission assurance. DOT&amp;E plans to continue working with the CCMDs and Services to develop multiyear plans for exercise cyber assessments and CRC events. These plans will focus on assessing the CCMD’s or Service’s ability to complete missions and be resilient in a cyber-contested environment. DOT&amp;E will perform year-round and long duration assessments of multiple CCMDs and Services with global Persistent Cyber Operations (PCO) authorities, and with US Cyber Command, will work to expand the number of participating CCMDs. Objectives for DOT&amp;E assessments in FY 2022 will include the portrayal of advanced nation-state cyber threats and the assessment of operational missions during realistic cyber attacks, with supporting offensive fires and cyber-range events included in the evaluation. DOT&amp;E will assess Cyber Protection Teams and Cyber Mission Teams when they participate during PCO, CRC, or exercise events. DOT&amp;E will continue assessments of offensive cyber capabilities. DOT&amp;E will also collaborate with the new teams at the CCMDs in conjunction with the Department’s initiative to expedite the integration of AI-enabled technology. As appropriate, DOT&amp;E will incorporate cybersecurity assessments of these emerging technologies during other planned CCMD assessments. DOT&amp;E will transmit critical findings to DOD leadership and Congress along with recommended actions to improve DOD’s cybersecurity posture.</p> <p><b>FY 2023 Plans:</b> Cyber Evaluations DOT&amp;E plans to sponsor approximately 50 CCMD and Service cybersecurity assessments and Cyber Readiness Campaign (CRC) events in FY 2023. Each assessment will continue to include “Find-Fix-Verify” efforts to facilitate the remediation of identified vulnerabilities and verify that solutions and mitigations improve warfighter mission assurance. DOT&amp;E plans to continue working with the CCMDs and Services to develop multiyear plans for exercise cyber assessments and CRC events.</p>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 000310 / <i>OT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>These plans will focus on assessing the CCMD's or Service's ability to complete missions and be resilient in a cyber-contested environment. DOT&amp;E will perform year-round and long duration assessments of all CCMDs and Services with Global PCO authorities. Objectives for DOT&amp;E assessments in FY 2023 will include the portrayal of advanced nation-state cyber threats and the assessment of operational missions during realistic cyber attacks, with supporting offensive fires and cyber-range events included in the evaluation. Expanded table-top exercises and war games to stress senior-leader decisions with advanced threats not suitable for exercises will also be performed. DOT&amp;E will assess Cyber Protection Teams and Cyber Mission Teams when they participate during PCO, CRC, or exercise events. DOT&amp;E will continue assessments of offensive cyber capabilities. DOT&amp;E will incorporate cybersecurity assessments of emerging AI-enabled technologies during other planned CCMD assessments. DOT&amp;E will transmit critical findings to DoD leadership and Congress along with recommended actions to improve DoD's cybersecurity posture.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increased funding that begins in FY 2023 will expand cybersecurity assessments of AI-enabled technologies deployed to CCMDs under the Department's Advanced Data Analytics initiative, increase coverage for PCO activities, and increase cyber threat realism.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	113.133	105.394	119.529

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	69.172	74.048	103.549	99.947	-	99.947	101.661	105.669	103.747	101.949	Continuing	Continuing
000311: <i>LFT&amp;E</i>	69.172	74.048	103.549	99.947	-	99.947	101.661	105.669	103.747	101.949	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This Program Element consists of three programs: Joint Live Fire (JLF), Joint Aircraft Survivability Program (JASP), and Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME).

This Program Element directly supports the Congressional statutory requirements for oversight of LFT&E. The primary objective of LFT&E is to assure that the vulnerability and survivability of Department of Defense (DOD) crew-carrying platforms and the lethality of our conventional munitions are known and acceptable before entering full-rate production. LFT&E encompasses realistic tests involving actual U.S. and foreign threat hardware or, if not available, acceptable surrogate threat hardware. The objective is to identify and correct design deficiencies early in the development process. A completed LFT&E program and test report is required before programs proceed beyond low-rate initial production (BLRIP). LFT&E also includes realistic modeling and simulation (M&S) to examine survivability and lethality attributes not assessed during testing.

This Program Element supports DoD's Joint Live Fire (JLF) Program. JLF was initiated in 1984 under an Office of the Secretary of Defense charter to test fielded front-line combat aircraft and armor systems for their vulnerabilities as well as fielded weapons, both U.S. and foreign, for their lethality against their respective targets. Funds are also used to support other initiatives related to quick reaction requests from theater and other areas of personnel survivability.

JASP is the DOD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the Commander of the U.S. Navy Naval Air Systems Command, the U.S. Assistant Secretary of the Army (Acquisition Logistics and Technology), and the Commander of the U.S. Air Force Life Cycle Management Center to increase the affordability, readiness, and effectiveness of Tri-Service aircraft through joint coordination and development of survivability technologies, design tools and assessment methodologies. The JASP coordinates and conducts RDT&E to improve military aircraft survivability, develop and standardize aircraft survivability modeling and simulation (M&S), facilitate information exchange on aircraft survivability, and support aircraft survivability education for the DOD and U.S. aircraft community. Each chartering command provides a senior aircraft survivability expert for the JASP Principal Members Steering Group, which guides the program and approves projects for funding. The JASP assesses and reports on combat damage incidents through the Joint Combat Assessment Team (JCAT).

JTTCG/ME was chartered over 50 years ago to serve as DOD's focal point for munitions effectiveness information. The JTTCG/ME produces Joint Munitions Effectiveness Manuals (JMEMs) that are the sole source for all Joint Service authenticated non-nuclear weapons effectiveness data and methodology for DOD. The JMEMs are the "how to" manuals for putting ordnance on target and as such, directly impacts combat readiness, effectiveness, and survivability. JMEMs are used by the Warfighters in operational weaponing and collateral damage estimation (CDE) calls in direct support of operations, mission planning, and training; by the DoD, Joint, and Service planners in force-on-force M&S, mission area analysis, requirements studies, and weapon procurement planning; and by the service acquisition community

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>
--	--

in performance assessment, analysis of alternatives, and survivability enhancement studies. The JTCG/ME continually evolves weapons effectiveness and target vulnerability data, standards, methodologies, and processes based on the strategic environment for better munitions effectiveness evaluation and support to a more lethal force. JTCG/ME also increases efficiency by leveraging ongoing DOD efforts and supporting the DOD's intent to complement U.S. interest and capabilities by providing weaponeering and targeting capability to coalition partners.

The JMEM requirements and development processes are driven by operational lessons learned (i.e. Inherent Resolve, Resolute Support, and Freedom Sentinel), Joint Staff data call and the needs of Combatant Commands (CCMDs), Services, Military Targeting Committee (MTC) guided by Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 5140.01, Munitions Requirements Process (MRP) - DOD Instruction (DODI) 3000.04 and Operational Users Working Groups (OUWGs) input for specific weapon-target pairings and methodologies. Considerable effort goes into these user forums to establish Warfighter requirements for current and future JTCG/ME products, as well as continued training events and day-to-day support - all with the goal of enabling greater force lethality, strengthened partner capabilities, and optimal use of resources.

This program element also includes funds to obtain Federally Funded Research and Development Center (FFRDC) expertise in performing analyses in support of described LFT&E tasks, as well as travel funds to carry out the LFT&E, JASP, and JTCG/ME programs.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	74.048	68.549	0.000	-	0.000
Current President's Budget	74.048	103.549	99.947	-	99.947
Total Adjustments	0.000	35.000	99.947	-	99.947
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	35.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	99.947	-	99.947

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 000311: *LFT&E*

Congressional Add: *Program Increase: Lab and Test Range Upgrades*

Congressional Add Subtotals for Project: 000311

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
	-	35.000
	-	35.000
	-	35.000

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Operational Test and Evaluation, Defense Date: April 2022

<b>Appropriation/Budget Activity</b> 0460: Operational Test and Evaluation, Defense / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / Live Fire Test and Evaluation (LFT&E)
---	---

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 Weaponizing Tools to Support Strikes in a Contested Maritime Environment Increase:

The Weaponizing Tools to Support Strikes in a Contested Maritime Environment initiative will enable the ability to bring Joint Fires to bear in a maritime action by providing a joint-service approved, scene-based Maritime Operational Weaponizing Tool that can assess weapons effects and optimize weapon allocation. Funding will be used to achieve the following: (1) Development of appropriate weaponizing prediction models (JMEmS for maritime threats), (2) Delivery of critical data to improve lethal effect estimate methodologies, (3) Development of target geometry models for prioritized surface and subsurface maritime targets, (4) Development of weaponizing-level, engineering-level, collateral damage estimation, and predictive battle damage assessment methodologies required by Strike Approval Authorities to make their strike decision calls, and (5) Improvement of supporting engineering models to analyze weapon effectiveness, weapon characteristics, delivery accuracy, reliability, and target vulnerabilities.

This initiative will increase force-wide lethality by providing Combatant Commanders with improved capability to plan and execute missions in a contested maritime environment. It will deliver a weaponizing tool capable of timely and accurate estimates with current and future kinetic/non-kinetic weapons and the required aimpoints to achieve the desired lethal effect against maritime targets (surface and subsurface). More specifically, this enhancement will enable the development of data and analytics based operational tools significantly improving the ability to prosecute high value maritime targets in the INDOPACOM, CENTCOM and EUCOM AORs, while producing salvo tables that will reduce over-allocation of ordnance in an already low-density, high-demand environment.

FY 2023 Joint Targeting Intelligence (JTI) Increase:

JTCG/ME funding will support investment in Joint Targeting Intelligence (JTI) modernization. JTI is the Joint Staff J2's portion of the Joint Targeting Cycle that selects, analyzes, and prioritizes targets and then assesses the results of the application of military force. JTI drives the operations process of linking desired effects to tasks in order to meet the Commander's objectives. This initiative will align the doctrine/ modernize the architecture that governs targeting with the tools that are used for weaponizing, collateral damage estimation, combat assessment, and munitions effectiveness assessment across the CCMDs and Services.

JTI Requirements Definition Package includes 25 requirements for the targeting enterprise to be addressed by selected targeting tools (i.e. Digital Imagery Exploitation Engine (DIEE)/JMEmS Weaponizing System (JWS), Joint Targeting Toolbox (JTT), Modernized Integrated Database (MIDB), and Integrated Munitions Effects Assessment (IMEA)).

JTCG/ME, in coordination with Joint Staff J2 and OUSD (I&S), will evolve DIEE/JWS and the DOD's battle damage assessment repository to meet the emerging requirements of the JTI (e.g., Common Data Models in data centric environment), with the goal of providing capabilities to the targeting enterprise that evolve with current technological demands.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000311: <i>LFT&amp;E</i>	69.172	74.048	103.549	99.947	-	99.947	101.661	105.669	103.747	101.949	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This Program Element consists of three programs: Joint Live Fire (JLF), Joint Aircraft Survivability Program (JASP), and Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME).

This Program Element directly supports the Congressional statutory requirements for oversight of LFT&E. The primary objective of LFT&E is to assure that the vulnerability and survivability of Department of Defense (DOD) crew-carrying platforms and the lethality of our conventional munitions are known and acceptable before entering full-rate production. LFT&E encompasses realistic tests involving actual U.S. and foreign threat hardware or, if not available, acceptable surrogate threat hardware. The objective is to identify and correct design deficiencies early in the development process. A completed LFT&E program and test report is required before programs proceed beyond low-rate initial production (BLRIP). LFT&E also includes realistic modeling and simulation (M&S) to examine survivability and lethality attributes not assessed during testing.

This Program Element supports DoD's Joint Live Fire (JLF) Program. JLF was initiated in 1984 under an Office of the Secretary of Defense charter to test fielded front-line combat aircraft and armor systems for their vulnerabilities as well as fielded weapons, both U.S. and foreign, for their lethality against their respective targets. Funds are also used to support other initiatives related to quick reaction requests from theater and other areas of personnel survivability.

JASP is the DOD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the Commander of the U.S. Navy Naval Air Systems Command, the U.S. Assistant Secretary of the Army (Acquisition Logistics and Technology), and the Commander of the U.S. Air Force Life Cycle Management Center to increase the affordability, readiness, and effectiveness of Tri-Service aircraft through joint coordination and development of survivability technologies, design tools and assessment methodologies. The JASP coordinates and conducts RDT&E to improve military aircraft survivability, develop and standardize aircraft survivability modeling and simulation (M&S), facilitate information exchange on aircraft survivability, and support aircraft survivability education for the DOD and U.S. aircraft community. Each chartering command provides a senior aircraft survivability expert for the JASP Principal Members Steering Group, which guides the program and approves projects for funding. The JASP assesses and reports on combat damage incidents through the Joint Combat Assessment Team (JCAT).

JTTCG/ME was chartered over 50 years ago to serve as DOD's focal point for munitions effectiveness information. The JTTCG/ME produces Joint Munitions Effectiveness Manuals (JMEMs) that are the sole source for all Joint Service authenticated non-nuclear weapons effectiveness data and methodology for DOD. The JMEMs are the "how to" manuals for putting ordnance on target and as such, directly impacts combat readiness, effectiveness, and survivability. JMEMs are used by the Warfighters in operational weaponing and collateral damage estimation (CDE) calls in direct support of operations, mission planning, and training; by the DoD, Joint, and Service planners in force-on-force M&S, mission area analysis, requirements studies, and weapon procurement planning; and by the service acquisition community

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>
--	--	---

in performance assessment, analysis of alternatives, and survivability enhancement studies. The JTCG/ME continually evolves weapons effectiveness and target vulnerability data, standards, methodologies, and processes based on the strategic environment for better munitions effectiveness evaluation and support to a more lethal force. JTCG/ME also increases efficiency by leveraging ongoing DOD efforts and supporting the DOD's intent to complement U.S. interest and capabilities by providing weaponeering and targeting capability to coalition partners.

The JMEM requirements and development processes are driven by operational lessons learned (i.e. Inherent Resolve, Resolute Support, and Freedom Sentinel), Joint Staff data call and the needs of Combatant Commands (CCMDs), Services, Military Targeting Committee (MTC) guided by Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 5140.01, Munitions Requirements Process (MRP) - DOD Instruction (DODI) 3000.04 and Operational Users Working Groups (OUWGs) input for specific weapon-target pairings and methodologies. Considerable effort goes into these user forums to establish Warfighter requirements for current and future JTCG/ME products, as well as continued training events and day-to-day support - all with the goal of enabling greater force lethality, strengthened partner capabilities, and optimal use of resources.

This program element also includes funds to obtain Federally Funded Research and Development Center (FFRDC) expertise in performing analyses in support of described LFT&E tasks, as well as travel funds to carry out the LFT&E, JASP, and JTCG/ME programs.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Live Fire Test and Evaluation</p> <p><b>Description:</b> LFT&amp;E of Major DOD Acquisition Programs The FY 2022 budget will enable DOT&amp;E to assess the adequacy of LFT&amp;E strategies/plans and generate new LFT&amp;E policies to support systems' acquisitions and rapid fielding. The FY 2022 budget will ensure adequate execution of the agreed upon LFT&amp;E plans and subsequent ability to conduct independent analysis of survivability and lethality test and M&amp;S data in support of OSD LFT&amp;E reports to Congress.</p> <p><b>FY 2022 Plans:</b> JLF The FY 2022 JLF budget will support multiple projects as a culmination of continuing 11 projects from previous FYs and 5 new projects. Project objectives will align with DOT&amp;E's Science &amp; Technology Strategic Plan, National Defense Strategy objectives and SECDEF priorities. The FY 2022 program will represent technical areas of warhead lethality, hypersonics, cyber threat discovery, active protection system methodology, mission-based T&amp;E analysis, data analytics, maritime modeling &amp; simulation (M&amp;S) enhancements, and M&amp;S Enhancements for Improved T&amp;E.</p> <p>Warhead Lethality In FY 2022, JLF will continue to increase the accuracy and capability of critical modeling and simulation tools to support test and evaluation efficiency and ensure credibility of DOD assessments and weaponeering tools.</p>	74.048	68.549	99.947

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- For example, one effort will continue to update the weaponeering methods needed to estimate effects used in low-collateral-damage munitions such as BLU-129/B to combine very low collateral damage with increased nearfield lethality on a target.</p> <p>- Another effort continues to align the DOD, Department of Energy, and industry experts to improve pedigree of weapons data, provide uncertainty quantification for M&amp;S validation, demonstrate operational and warfighter support for credible weapon effects, and enhance LFT&amp;E by accelerating weapon development timelines and reducing cost.</p> <p>- JLF will continue to address T&amp;E shortfalls needed to adequately evaluate emerging hypersonic weapons by enabling optical characterization of fragment dispersion in flight tests.</p> <p>Cyber Threat Discovery</p> <p>- JLF will continue to develop and optimize machine learning and M&amp;S tools to improve the ability to identify, quantify, and project DOD system vulnerabilities to cyber effects.</p> <p>Active Protection System Methodology</p> <p>- JLF will continue to enhance an M&amp;S capability that will enable efficient evaluation of active protection systems integrated with ground combat vehicles.</p> <p>Mission-based T&amp;E Analysis</p> <p>- JLF will continue to demonstrate applicability of capability-based analysis with System-Theoretic Process Analysis (STPA) techniques, to optimization of LFT&amp;E.</p> <p>Data Analytics</p> <p>In coordination with established service activities, JLF will continue to refine courses of action for consolidating available and future LFT&amp;E data in support of a range of data mining and data analytics intended to more effectively inform requirements, performance evaluations, and development of evaluation/test tools.</p> <p>Maritime M&amp;S Enhancements</p> <p>- JLF will continue to consolidate ongoing efforts to expedite the development and fielding of credible tools needed to evaluate ship vulnerabilities to kinetic threat engagements while also enabling operational users to accurately and timely plan strike missions against adversary surface ships.</p> <p>- JLF will continue the development and plans for execution of a Maritime Survivability and Lethality Test Program (MSLTP) Multi-year Program Plan that will pursue a cohesive, enterprise-wide strategy that seeks to improve efficiency, collaboration, knowledge</p>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>sharing, and analytical techniques across maritime organizations. The program will identify knowledge gaps, plan collaborative test programs that procure data to fill those gaps, share data among stakeholders, and improve current analytical tools and methods to make assessments going forward. This effort is directly linked to JTCG/ME’s “Weaponeeing Tools to Support Strikes in a Contested Maritime Environment”.</p> <p>M&amp;S Enhancements for Improved T&amp;E JLF efforts will also continue to leverage new technologies and test methods to improve space launch vehicle evaluation efficiency and credibility.</p> <p>- For example JLF will continue to evaluate cost effective data from small-scale testing for blast model validation (JWS and other DoD lethality models) and uncertainty quantification that provides higher confidence levels for weaponeeing and mission-planning.</p> <p>JLF will continue to focus on the application of scientific methods to standardize efficient validation, verification, and accreditation processes for LFT&amp;E/Joint Munition Effectiveness Manuals (JMEM) M&amp;S tools to accurately outline M&amp;S capabilities, limitations, uncertainty quantification, and statistical confidence in predicted outcomes.</p> <p>JLF will also continue to lead innovation in LFT&amp;E methods to increase efficiency and support rapid fielding.</p> <p>JASP In FY 2022 the JASP will continue work on 30 multi-year RDT&amp;E projects approved by the JASP PMSG and OSD/DOT&amp;E. The JASP will support the National Defense Strategy objective to ‘Build a More Lethal Force’ by developing measures to improve threat situational awareness, defeat near-peer adversary radio frequency and infrared guided threats, and provide quantifiable improvements in digital and hardware-in-the-loop M&amp;S capability and credibility. JASP analysis will improve aircraft force protection by advancing system hardening against kinetic and non-kinetic threats.</p> <p>The JCAT will continue to support the Air Force, Army, Marine Corps and Navy by assessing combat damage incidents, training operators on threat effects and combat damage assessment, and reporting their findings to CCMDs and the DOD science and technology and acquisition communities. The JASP will continue supporting aircraft survivability education and information exchange through internet sites (restricted access and classified), by publishing the Aircraft Survivability Journal, developing educational materials and conducting training for the DoD and their contractors. The JASP will initiate, continue and complete other projects as approved by the JASP PMSG and OSD/DOT&amp;E.</p> <p>JTCG/ME</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>- Deliver JMEM Weaponering System (JWS) v2.4.1 to the field. Key updates include: PC Effects, Linear Target Model, Tasked Target Text Data (T3D) v8.0.5 and weapons data. Continue to develop JWS v3.0 Technical Previews 8, 9, and 10 which use the Model-View-ViewModel (MVVM) software architecture in scene-based environment. The new JWS v3.0 design will allow a Digital Imagery Exploitation Engine (DIEE) Application Programming Interface (API) to call directly into the calculations engine to support Advanced Target Development (ATD)/Weaponering functions at CCMD level. Key updates include: JWS Agile Development Support, EndGame Framework (EF) Maintenance &amp; Support, Weapon data, Delivery Accuracy data, User Interface (UI)/User Experience (UX), Structural Target Response (i.e. SBEDS and WinBlast), Materiel Target Response, Personnel Target Response, Trajectory updates and Maritime Target Response.</p> <p>- Deliver Joint Effects Library (JEL) capabilities to develop and complete JWS/DIEE v3.0 weaponering capabilities. JEL capabilities include new and updated trajectory modeling, new weapons and targets database designs and user interfaces, enhanced structural target response and prediction, personnel and ground mobile vulnerability methods, and JEL model Smart Book. FY 2022 efforts will include continued development of capabilities, which include collateral effects radii tables, enhanced collateral damage mitigation, new ground mobile target capability and data, and new infrastructure targets (tunnels and bridges).</p> <p>- Support requirements collection by hosting JMEM training sessions, Operational Users Working Groups (OUWG), and user help desk via the Joint Product Information Access System (JPIAS). JTTCG/ME will support approximately 30 training sessions anticipating about 300 students annually. These training sessions allow users to optimize use of JMEM capabilities, while providing JTTCG/ME with critical input for future development. In addition, direct forward support to Combatant Commanders/ Task Forces will be provided to enable target materiel development, weaponering, and CDE solution development. JTTCG/ME will collect user requirements and product use cases, to process and codify in capability needs statements used for planning and JMEM product development. Additionally, in FY 2022, JTTCG/ME will deliver the new requirement management tool that will: track requirements' from development and through life-cycle completion; provide context to leadership, analysts, and developers without breaking flow; and align requirements activities with current DevSecOps guidance.</p> <p>- Facilitate coalition interoperability and information exchange forums. JTTCG/ME will continue to support/deliver JWS version releases (ROK JWS, JWS v2.4.1 for ACGU) and standalone Probability of Kill Lookup tools to multiple key coalition partners in support of current operations under Foreign Military Sales (FMS) agreements, as well as migrate to new processes via the JEL/ JWS v3.x concept. JTTCG/ME is supporting a new JWS FMS case for the U.K. These FMS deliveries complement U.S. interest and capabilities by providing weaponering and targeting capability to Coalition partners.</p> <p>- Continue to hold information exchange forums under International Energy Agency agreements (i.e. US-UK IEA 1858 and US-ROK IEA 0585). Transition to new US-UK IEA 0864 with new expanded scope. These exchanges facilitate collaboration on</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>methodologies and efforts of mutual interest in the area of weapons effectiveness/collateral damage estimation for both kinetic and non-kinetic weapons.</p> <ul style="list-style-type: none"> <li>- Develop and fully exercise the Joint Analysis Repository and Visual Interface System (JARVIS) and JEL processes to supply target vulnerability data, weapons characterization data, weapons effectiveness methodology to operational and acquisition communities. The JTCG/ME develops and improves data and methodology used as tri-service standards. A focus of FY 2022 efforts is to continue to migrate data and methodology utilized through the JARVIS and the JEL. In addition, release AJEM v4.22.1, AJEM EF Modules, Target Surrogation Recommendations, Orca Extra Large Unmanned Undersea Vehicle updates, and Fast Air Target Engagement Penetration updates.</li> <li>- JTCG/ME will continue to support and host technical working groups on targets, weapons, and methodology, as forums to share knowledge and build partnerships for greater leveraging, performance, and affordability. Leveraging existing technologies and partnerships have the potential to reduce the number of weapon test articles required and remove labor-intensive activities from weapon testing.</li> <li>- Update and execute strategic roadmaps for underlying vulnerability/lethality models used as standards by the tri-service community to better support JMEMs and DOT&amp;E. These roadmaps align JTCG/ME-funded and related tasks by other services and programs to facilitate leveraging. In addition, the roadmaps provide a tool for future investment planning to support M&amp;S validation and resolution of capability gaps.</li> <li>- Develop, field, and maintain/support DIEE v2.3.1 and v3.0 versions. DIEE v2.3.1 updates include: Risk Estimate Distances (RED) table updates, Tasked Target Text Data (T3D) updates, Modernized Integrated Database (MIDB) Plugin enhancements, Integrated Munitions Effects Assessment (IMEA) Connect, Geospatially Enabled Targeting Materials (GETM) Write and Mensuration Services Program (MSP) 1.6.4/CGS 2.3.8.1. Continue to evolve DIEE as an enterprise targeting solution that provides both seamless planning, linkage to various mission planning systems and tools in operational units.</li> <li>- Continue to develop future DIEE version v3.x with JWS 3.x capabilities plugin/API development. Focused FY 2022 efforts will continue to maintain/improve connectivity to community tools, implement interface with JEL, IMEA, and Collateral Effects Library (CEL) emerging capabilities. In addition, establish connectivity with Android, Variable Message Format (VMF) in support of Dynamic Operations, transition battle damage assessment workflow/data capabilities from BDA analytical efforts, maintain awareness of policy changes to applicable CJCSIs, conversion to Windows Presentation Foundation (WPF), modernize look &amp; feel, integration with JWS v3.0, native 3D viewer (i.e. Generic Point Cloud Model (GPM) data, draw objects, pan/zoom/rotate, render aimpoints &amp; CDE rings), 2D viewer updates (i.e. shadows &amp; highlights), BDA STARLORD interface development and service-oriented architecture (SOA) improvements. The new JWS v3.0 plugin/API design allows DIEE to call directly into the tri-</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>service approved weaponeering calculations engine to support full ATD functions (i.e. Weaponeering, CDE, TCM) at CCMD level, as well as supporting separate weaponeering analysis for Services and planners all in one product.</p> <p>- Develop and accredit Collateral Effects Radii (CER) Reference Tables in accordance with the latest CJCSI 3160.01, “No-Strike and the CDE Methodology” for air-to-surface and surface-to-surface weapons, which are the basic data that support the CDE methodology implemented in DIEE.</p> <p>- Continue to support and deliver reachback analysis packages for collateral damage mitigation, post-forensic, and force protection analyses packages to operational users for high value targets in current operations. These efforts directly assist Combatant Commands to meet commander’s intent and minimize collateral damage.</p> <p>- Continue the Enhanced Weaponeering and CDE Program, a multi-year test program focused on enhancing and validating JTCG/ME CDE tools. This program will support improvements in weaponeering and CDE methodology to minimize risk to mission and risk to forces, while not increasing risk of collateral damage by providing foundational data for the development of higher fidelity predictive tools. Specific efforts will generate buried ordnance characterization data based upon usage statistics from CCMD Expenditure reports, and area of responsibility specific building debris data to enhance and validate current weaponeering/collateral damage estimation methodologies required by Strike Approval Authorities. FY 2022 efforts will leverage seven FY 2021 testing events and multiple collaboration forums. FY 2022 efforts will include three buried ordnance and three building debris characterization tests, as well as analyzing and transitioning data and findings from previous tests to weaponeering and CDE tools.</p> <p>- Continue to implement the bomb damage assessment for the Deliberate and Dynamic Strikes analysis. The effort is a multi-year task to analyze ongoing strikes required to update JMEM capabilities. The overall objective and intent is to ensure effective and efficient munition expenditure rates and mitigate the stockpile stress, while improving CCMDs’ force effects. In essence, improve the warfighter’s ability to get the right weapon on the right target, achieve the desired effect, and minimize collateral damage while optimizing scarce resources. FY 2022 efforts include: continued extraction of new strike data events, further refine strike analysis methodologies to increase automation, further development of new analysis tools obtain end user feedback on new tools for user interfaces, integrate BDA analysis tools with existing JTCG/ME weaponeering applications, shape BDA reporting standards, Landuse Classification, 3D Point Cloud Model Development, Physical Damage Assessment and Building Extraction Tool.</p> <p>- Develop, field, and maintain/support Joint Anti-air Combat Effectiveness (J-ACE) v5.4, which includes multiple training and user forums for the fielded product. These forums are pivotal for J-ACE developers to understand requirements and align development with other external debrief and analytical capabilities that use J-ACE as the underlying analytical engine to underpin results. J-ACE v5.4 enhancements include: User Support/Training - increased v5.3 training, using unclassified web, updating BROWSE</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>documentation resource, Models/Data - new national Time-Space-Position Info (TSPI) format, and Integration - Updated blue AIM-120 and AIM-9x simulations.</p> <p>- Continue integration of Air Combat Effectiveness Library (ACEL) v1.0 capabilities in J-ACE v6.0, which includes Joint Aircraft Survivability Program Survivability and Lethality of Aircraft in Tactical Environments (SLATE) capabilities for Rotary Wing and Low Altitude Combat Weapons.</p> <p>- Continue Cyber JMEM development capabilities with continued execution of multiyear plan to develop/enhance the Cyber Operations Lethality and Effectiveness (COLE) tool. FY 2022 efforts will focus on completion of COLE v2.0 that will include automated fusion of multi-domain estimates, correlation of foundational data to support Operational Environment Model (OEM) generation, preliminary artificial intelligence-based decision support system, OEM analysis and attack planning support, refined integration with other JTCG/ME toolsets, and quantitative comparisons. Similar to other JMEMs, user feedback is critical.</p> <p>- Develop and field Joint Laser Weaponing Software (JLaWS) tool v2.0 including JTCG/ME Endgame Framework integration, integrate Laboratory/field effects testing and vulnerability analyses. Develop and field High Power Microwave Weapon Systems (HPMWS) v1.0 include continuing HPM lethality testing/target vulnerability analysis/data collection for V&amp;V on service-specific target sets, field-testing, target vulnerability characterization and modeling to provide inputs to JMEM models.</p> <p>- Continue to develop and mature EMS Fires JMEM program and capabilities. FY 2022 efforts will enhance Electronic Attack (EA) effectiveness capability including standardization of data and methods (e.g., approved effectiveness library and services) for EA (offensive jamming) effectiveness for use by the Joint force within operational tools and develop capability to determine weaponing effects due to The Global Positioning System (GPS) denial. A particular focus will be the implementation of EA methodologies for an initial Joint Electronic Attack Prediction (JEAP) tool.</p> <p>- Weaponing Tools to Support Strikes in a Contested Maritime Environment. Efforts will enable development of foundational data and analytics based on weaponing-level, engineering-level, collateral damage estimation, and predictive battle damage assessment methodologies. Plans are being developed/executed to establish an interim Maritime Weaponing Guide as well as leveraging efforts on Advanced Ship Survivability Program, Maritime Survivability Library and Maritime Lethality Analysis Tool. JTCG/ME will finalize the program plan for approval. The end state is to deliver an improved weaponing tool capable of producing timely/accurate estimates with current/future kinetic/non-kinetic weapons to include required aimpoints to achieve the desired lethal effect against maritime targets (surface and subsurface).</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Support the Joint Targeting Intelligence (JTI) requirements roadmap as a bridge to the FY 2023 increase. Of the 25 requirements being addressed, 17 are in relation to scaling DIEE to meet the needs of the targeting enterprise.</p> <p><b>FY 2023 Plans:</b> JLF The FY 2023 budget will align with DOT&amp;E's S&amp;T Strategic Plan, National Defense Strategy objectives, and SECDEF priorities. It will support a more lethal force by increasing the accuracy and capability of critical M&amp;S tools to support T&amp;E efficiency and ensure credibility of DOD assessments and weaponizing tools. The FY 2023 program will continuously focus on multi-year initiatives such as Verification, Validation and Accreditation standardization including model uncertainty quantification and experimentation measurement uncertainty, warhead lethality, data analytics, and maritime modeling M&amp;S enhancements. JLF efforts will also resolve survivability and lethality related system design challenges of currently fielded U.S. systems while maintaining awareness of LFT&amp;E challenges across all air, ground, and sea domains. Finally, JLF will continue to lead innovation in LFT&amp;E methods to increase LFT&amp;E efficiency and support rapid fielding.</p> <p>JASP In FY 2023, the JASP will continue work on multi-year RDT&amp;E projects and initiate new projects approved by the JASP PMSG and OSD/DOT&amp;E. The JASP will support the NDS objective to 'Build a More Lethal Force' by developing measures to improve threat situational awareness, defeat near-peer adversary radio frequency and infrared guided threats, and provide quantifiable improvements in digital and hardware-in-the-loop M&amp;S capability and credibility. Improve aircraft force protection by advancing system hardening against kinetic and non-kinetic threats. 'Reform the DoD for Greater Performance and Affordability' by funding the development of more efficient capabilities to development, test and evaluate aircraft survivability against kinetic and non-kinetic threats.</p> <p>The JCAT will continue to support the Air Force, Army, Marine Corps and Navy by assessing combat damage incidents, training operators on threat effects and combat damage assessment, and reporting their findings to combatant commanders and the DoD science and technology and acquisition communities. The JASP will continue supporting aircraft survivability education and information exchange through internet sites (restricted access and classified), by publishing the Aircraft Survivability Journal, developing educational materials and conducting training for the DoD and their contractors. The JASP will initiate, continue and complete other projects as approved by the JASP Principal Members Steering Group and OSD/DOT&amp;E.</p> <p>JTCG/ME - Develop and field JWS v3.0 capabilities plugin within JWS/ DIEE v3.0. Specific development events will include Technical Previews 11, 12, and 13 to finish/field JWS v3.0 and transition to JWS v3.1 development. The JWS v3.x architecture allows greater leveraging and sharing of Service based model and simulation capabilities. The new JWS v3.0 plugin/API design allows</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>DIEE to call directly into the Tri-service approved weaponeering calculations engine to support full ATD functions (Weaponeering, CDE, TCM) at CCMD level, as well as supporting separate weaponeering analysis for Services and planners all in one product.</p> <ul style="list-style-type: none"> <li>- Continue to enhance JEL capabilities to serve as the foundation of JWS/DIEE v3.x product line Tri-service approved methodology and data. JEL capabilities include new/updated trajectory modeling, new weapon/targets database designs/data and user interfaces, enhanced structural target response and prediction, personnel and ground mobile vulnerability methods, API, and JEL model Smart Book. FY 2023 efforts will include continued development of capabilities, which include collateral effects radii tables, enhanced collateral damage mitigation, new ground mobile target capability/data, and continue evolution of new maritime operational weaponeering tool.</li> <li>- Support requirements collection by hosting JMEM training sessions, OUWG, and User help desk via the Joint Product Information Access System (JPIAS). JTCCG/ME will support approximately 30 training sessions anticipating about 400 students annually. JTCCG/ME will collect User requirements and product use cases, to process and codify in capability needs statements used for planning and JMEM product development. Requirement management tools will track requirements lifecycle through development and completion; provide context to leadership, analysts and developers without breaking flow: and align Requirements activities with current DevSecOps guidance.</li> <li>- Facilitate coalition interoperability and information exchange forums. JTCCG/ME will continue to support/deliver JWS version releases (ROK JWS, JWS v2.4.x for ACGU, JWS for UK) and standalone Probability of Kill Lookup tools to multiple key coalition partners in support of current operations under FMS agreements, as well as continue to migrate to JEL/JWS v3.x concepts. These FMS deliveries complement U.S. interest and capabilities by providing weaponeering and targeting capability to Coalition partners.</li> <li>- Continue to hold information exchange forums under IEA agreements (US-UK IEA 0864 and US-ROK IEA 0585). These exchanges facilitate collaboration on methodologies and efforts of mutual interest in the area of weapons effectiveness/collateral damage estimation for both kinetic and non-kinetic weapons. These IEAs support the 'National Defense Strategy -Strengthen Alliances and Attract New Partners', specifically by supporting Warfighters in achieving weaponeering interoperability.</li> <li>- Use and enhance the JARVIS and JEL processes to supply target vulnerability data, weapons characterization data, weapons effectiveness methodology to operational and acquisition communities. The JTCCG/ME develops and improves data and methodology used as tri-service standards. A focus of FY 2023 efforts is to deliver new materiel and maritime data and methods to JWS and DIEE.</li> <li>- Continue to support and host technical working groups in targets, weapons, and methodology, as forums to share knowledge and build partnerships for greater leveraging, performance, and affordability. Leveraging existing technologies and partnerships</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>have the potential to reduce the number of weapon test articles required and remove labor-intensive activities from weapon testing.</p> <ul style="list-style-type: none"> <li>- Update/execute strategic roadmaps for underlying vulnerability/lethality models used as standards by the tri-service community to better support JMEMs and DOT&amp;E. These roadmaps align JTTCG/ME funded and related tasks by other services and programs to facilitate leveraging. In addition, the roadmaps provide a tool for future investment planning to support modeling/simulation validation and resolution of capability gaps.</li> <li>- Develop/field DIEE v3.1 with JWS 3.x capabilities plugin/API in accordance with Joint Staff policy. Continue to evolve DIEE as an enterprise targeting solution that provides both seamless planning, linkage to various mission planning systems and tools in operational units. Efforts include maturing DIEE/JWS version v3.x with JWS 3.x capabilities linkage, but also maintain and grow connectivity to community capabilities such as JEL, IMEA, CEL, BDA analytical efforts, and other emerging capabilities for all domain targeting. The new JWS v3.0 plugin/API design allows DIEE to call directly into the Tri-service approved weaponeering calculations engine to support full ATD functions (Weaponeering, CDE, TCM) at CCMD level, as well as supporting separate weaponeering analysis for Services and planners all in one product.</li> <li>- Develop and accredit CER Reference Tables in accordance with the latest CJCSI 3160.01, "No-Strike and the CDE Methodology" for air-to-surface and surface-to-surface weapons, which are the basic data that support the CDE methodology implemented in DIEE.</li> <li>- Continue to support/deliver reachback analysis packages for collateral damage mitigation, post-forensic, and force protection analyses packages to operational Users for high value targets in current operations. These efforts directly assist Combatant Commands to meet commander's intent and minimize collateral damage.</li> <li>- Continue the Enhanced Weaponeering and CDE Program will support improvements in weaponeering and CDE methodology to minimize risk to mission and risk to forces, while not increasing risk of collateral damage by providing foundational data for the development of higher fidelity predictive tools. FY 2023 will continue to community collaboration and focus on continuing to leverage data from the multiple tests to enhance, develop, and validate methodology used in JMEM products. Other efforts will include specialized/focused tests based on lessons learned.</li> <li>- Continue BDA of Deliberate and Dynamic Strikes analysis program. FY 2023 efforts include: continue to extraction and analyze strike data events, enhance BDA tools to include automation and integration of 3D models in JWS/DIEE, support BDA reporting standards, field combat damage assessment tool, maintain/support fielded tools, and collect User feedback.</li> </ul>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- Support fielded version of J-ACE v5.4, which includes multiple training and user forums for the fielded product. These forums are pivotal for J-ACE developers to understand requirements and align development with other external debrief/analytical capabilities that use J-ACE as the underlying analytical engine for underpinning results and enabling air combat TTP development at test and training ranges.</p> <p>- Develop and field J-ACE v6.0. The new J-ACE v6.0 product line will leverage Air Combat Effectiveness Library (ACEL) v1.0 capabilities. The architecture allows for greater leveraging and sharing of Service and Intel community based model and simulation capabilities to include rotary wing, low altitude combat weapons, and high fidelity air-to-air missile modeling capabilities.</p> <p>- Continue enhancement of Cyber JMEM capabilities in new versions of COLE tool. FY 2023 efforts will focus on completion of COLE v3.0 to include new requirements from Operational user community, such as greater automation, pattern of life analysis, User experience, and connection to other JMEMs for greater all domain capability. A focus will continue to be expanding User base and increased User feedback for product enhancement.</p> <p>- Support/maintain JLaWS tool v2.0. Develop and field JLaWS tool v3.0 to include new weapon systems, target vulnerability characterization, and enhancements from continued test and analytical events. Increase connectivity to other JMEMs for greater all domain capability.</p> <p>- Support/maintain HPMWS v1.0. Develop and field HPMWS v2.0 to include enhancements from HPM lethality testing, target vulnerability analysis, and data collection.</p> <p>- Develop/implement EMS Fires (Electronic Attack) JMEM capabilities. FY 2023 efforts will include fielding of initial JEAP tool v1.0, as well as continue to maintain/refine EA effectiveness (offensive jamming) data standards, collect/approve data, collaborate with User/ Mission Planning community for requirements refinement, and implement convergence and BDA capabilities. These efforts will provide the Joint targeteers and mission planners with standard data sets and methodologies for capabilities analysis/ weaponing and mission planning. The program will also continue to implement validation efforts for GPS analysis capabilities to determine Weaponing effects due to GPS Denial.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b>  FY 2023 Weaponing Tools to Support Strikes in a Contested Maritime Environment Increase:   The Weaponing Tools to Support Strikes in a Contested Maritime Environment initiative will enable the ability to bring Joint Fires to bear in a maritime action by providing a joint-service approved, scene-based Maritime Operational Weaponing Tool</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>that can assess weapons effects and optimize weapon allocation. Funding will used to achieve the following: (1) Development of appropriate weaponeering prediction models (JMEmS for maritime threats), (2) Delivery of critical data to improve lethal effect estimate methodologies, (3) Development of target geometry models for prioritized surface and subsurface maritime targets, (4) Development of weaponeering-level, engineering-level, collateral damage estimation, and predictive battle damage assessment methodologies required by Strike Approval Authorities to make their strike decision calls, and (5) Improvement of supporting engineering models to analyze weapon effectiveness, weapon characteristics, delivery accuracy, reliability, and target vulnerabilities.</p> <p>This initiative will increase force-wide lethality by providing Combatant Commanders with improved capability to plan and execute missions in a contested maritime environment. It will deliver a weaponeering tool capable of timely and accurate estimates with current and future kinetic/non-kinetic weapons and the required aim points to achieve the desired lethal effect against maritime targets (surface and subsurface). More specifically, this enhancement will enable the development of data and analytics based operational tools significantly improving the ability to prosecute high value maritime targets in the INDOPACOM, CENTCOM and EUCOM AORs, while producing salvo tables that will reduce over-allocation of ordnance in an already low-density, high-demand environment.</p> <p>FY 2023 Joint Targeting Intelligence (JTI) Increase:</p> <p>JTCG/ME funding will support investment in Joint Targeting Intelligence (JTI) modernization. JTI is the Joint Staff J2's portion of the Joint Targeting Cycle that selects, analyzes, and prioritizes targets and then assesses the results of the application of military force. JTI drives the operations process of linking desired effects to tasks in order to meet the Commander's objectives. This initiative will align the doctrine/ modernize the architecture that governs targeting with the tools that are used for weaponeering, collateral damage estimation, combat assessment, and munitions effectiveness assessment across the CCMDs and Services.</p> <p>JTI Requirements Definition Package includes 25 requirements for the targeting enterprise to be addressed by selected targeting tools (i.e. Digital Imagery Exploitation Engine (DIEE)/JMEmS Weaponeering System (JWS), Joint Targeting Toolbox (JTT), Modernized Integrated Database (MIDB), and Integrated Munitions Effects Assessment (IMEA)).</p> <p>JTCG/ME, in coordination with Joint Staff J2 and OUSD (I&amp;S), will evolve DIEE/JWS and the DOD's battle damage assessment repository to meet the emerging requirements of the JTI (e.g., Common Data Models in data centric environment), with the goal of providing capabilities to the targeting enterprise that evolve with current technological demands.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	74.048	68.549	99.947

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 000311 / <i>LFT&amp;E</i>
--	--	---

	FY 2021	FY 2022
<b>Congressional Add:</b> Program Increase: Lab and Test Range Upgrades	-	35.000
<b>FY 2022 Plans:</b> The program increase will fund Operational Test and Evaluation investments in test infrastructure to demonstrate new capabilities under operationally relevant conditions against realistic threats for lab and test range upgrades in the following: space, electromagnetic spectrum, hypersonics, and targets.		
<b>Congressional Adds Subtotals</b>	-	35.000

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	65.237	69.939	67.648	57.718	-	57.718	58.693	59.477	59.888	59.572	Continuing	Continuing
000920: <i>OTA&amp;A</i>	65.237	69.939	67.648	57.718	-	57.718	58.693	59.477	59.888	59.572	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The Operational Test Activities and Analyses (OTA&A) programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The OTA&A programs consist of three activities: Joint Test and Evaluation (JT&E); Test and Evaluation Threat Resource Activity (TETRA); and Center for Countermeasures (CCM).

JT&E projects are T&E activities conducted in a joint military environment that develop process improvements. These multi-Service projects, chartered by the Office of the Secretary of Defense and coordinated with the Joint Staff, CCMDs, and the Services, provide non-materiel solutions that improve the following: joint interoperability of Service systems, technical and operational concepts, joint operational issues, development and validation of joint test methodologies, and test data for validating models, simulations, and test beds. New projects are also encouraged to align their efforts to support the National Defense Strategy. The JT&E projects address relevant joint warfighting issues in a joint test and evaluation environment by developing and providing new tactics, techniques, and procedures to improve joint capabilities and methodologies.

Test and Evaluation Threat Resource Activity (TETRA), based on a memorandum of agreement between the DOT&E and the Defense Intelligence Agency, provides DOT&E support in the areas of threat resource analysis, intelligence support and threat systems investments. As DOT&E's agent, TETRA provides threat resource analyses on the availability, capabilities and limitations of threat representations (threat simulators, targets, models, U.S. surrogates, and foreign materiel) and analysis of test resources used for operational testing to support DOT&E's assessment of the adequacy of testing for those programs designated for oversight by DOT&E and the Office of the Under Secretary of Defense Acquisition and Sustainment (OUSD (A&S)). TETRA provides DOT&E action officers and other DOT&E activities with program-specific threat intelligence support. TETRA also funds management, oversight, and the actual development of common-use threat specifications for threat simulators, threat representative targets, and digital threat models used for T&E.

The Center for Countermeasures (CCM), a Joint Service Countermeasure (CM) T&E activity, directs, coordinates, supports, and conducts independent countermeasure/counter-countermeasure (counter-CM) T&E activities of U.S. and foreign weapon systems, subsystems, sensors, and related components. CCM accomplishes this work in support of DOT&E, weapon system developers, and the Services.

CCM's testing and analyses directly supports evaluations of the operational effectiveness and suitability of CM/counter-CM systems, such as aircraft survivability equipment (ASE) used on rotary-wing and fixed-wing aircraft. CCM's mission to support T&E of ASE enables the survivability of aircraft in a high threat environment to enable mission success. In addition, CCM provides test support for Directed Energy Weapons (DEW) and Counter-Unmanned Aircraft Systems (C-UAS) programs. CCM improves Service member exercises, training, and pre-deployment activities with expertise in CM/counter-CM technology and capabilities. Also, cooperative Allied efforts are supported in the areas of ASE T&E, DEW T&E, and threat M&S development.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE I <i>Operational Test Activities and Analyses</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	69.939	42.648	0.000	-	0.000
Current President's Budget	69.939	67.648	57.718	-	57.718
Total Adjustments	0.000	25.000	57.718	-	57.718
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	25.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	57.718	-	57.718

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 000920: *OTA&A*

Congressional Add: *Program Increase: Lab and Test Range Upgrades*

Congressional Add Subtotals for Project: 000920

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
	-	25.000
Congressional Add Subtotals for Project: 000920	-	25.000
Congressional Add Totals for all Projects	-	25.000

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. FY 2023 programmatic increase from FY 2022 reflects restoration of the Joint Test and Evaluation program funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / OTA&A
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
000920: OTA&A	65.237	69.939	67.648	57.718	-	57.718	58.693	59.477	59.888	59.572	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Operational Test Activities and Analyses (OTA&A) programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The OTA&A programs consist of three activities: Joint Test and Evaluation (JT&E); Test and Evaluation Threat Resource Activity (TETRA); and Center for Countermeasures (CCM).

JT&E projects are T&E activities conducted in a joint military environment that develop process improvements. These multi-Service projects, chartered by the Office of the Secretary of Defense and coordinated with the Joint Staff, CCMDs, and the Services, provide non-materiel solutions that improve the following: joint interoperability of Service systems, technical and operational concepts, joint operational issues, development and validation of joint test methodologies, and test data for validating models, simulations, and test beds. New projects are also encouraged to align their efforts to support the National Defense Strategy. The JT&E projects address relevant joint warfighting issues in a joint test and evaluation environment by developing and providing new tactics, techniques, and procedures to improve joint capabilities and methodologies.

Test and Evaluation Threat Resource Activity (TETRA), based on a memorandum of agreement between the DOT&E and the Defense Intelligence Agency, provides DOT&E support in the areas of threat resource analysis, intelligence support and threat systems investments. As DOT&E's agent, TETRA provides threat resource analyses on the availability, capabilities and limitations of threat representations (threat simulators, targets, models, U.S. surrogates, and foreign materiel) and analysis of test resources used for operational testing to support DOT&E's assessment of the adequacy of testing for those programs designated for oversight by DOT&E and the Office of the Under Secretary of Defense Acquisition and Sustainment (OUSD (A&S)). TETRA provides DOT&E action officers and other DOT&E activities with program-specific threat intelligence support. TETRA also funds management, oversight, and the actual development of common-use threat specifications for threat simulators, threat representative targets, and digital threat models used for T&E.

The Center for Countermeasures (CCM), a Joint Service Countermeasure (CM) T&E activity, directs, coordinates, supports, and conducts independent countermeasure/counter-countermeasure (counter-CM) T&E activities of U.S. and foreign weapon systems, subsystems, sensors, and related components. CCM accomplishes this work in support of DOT&E, weapon system developers, and the Services.

CCM's testing and analyses directly supports evaluations of the operational effectiveness and suitability of CM/counter-CM systems, such as aircraft survivability equipment (ASE) used on rotary-wing and fixed-wing aircraft. CCM's mission to support T&E of ASE enables the survivability of aircraft in a high threat environment to enable mission success. In addition, CCM provides test support for Directed Energy Weapons (DEW) and Counter-Unmanned Aircraft Systems (C-UAS) programs. CCM improves Service member exercises, training, and pre-deployment activities with expertise in CM/counter-CM technology and capabilities. Also, cooperative Allied efforts are supported in the areas of ASE T&E, DEW T&E, and threat M&S development.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / OTA&A

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

<b>Title:</b> Operational Test Activities and Analyses	69.939	42.648	57.718
--	--------	--------	--------

**Description:** The Operational Test Activities and Analyses (OTA&A) programs are continuing efforts that provide management and oversight of T&E functions and expertise to the DOD. The OTA&A programs consist of three activities: Joint Test and Evaluation (JT&E); Test and Evaluation Threat Resource Activity (TETRA); and, the Center for Countermeasures (CCM).

**FY 2022 Plans:**

Joint Test and Evaluation (JT&E)

In FY 2022, JT&E plans to close one project that started in FY 2019 and two projects that started in FY 2021. The first project is the Joint Interoperability through Data Centricity Joint Test, which closed in October 2021. It developed tactics, techniques, and procedures that enable Combatant Commands to rapidly and efficiently share operational data with appropriate mission partners without establishing separate networks for each unique set of partners. The second project is the Joint Integrated Fire Control – Directed Energy Weapons for Air Defense Joint Test, which is anticipated to close in August 2022. It is developing a concept of employment to integrate directed energy and kinetic fires with command and control authorities to maximize self-defense and minimize collateral damage. The third project is the Recovery Enhanced by Synchronizing Capabilities to Unify Effects Joint Test, which is anticipated to close in August 2022. It is developing and testing tactics, techniques, and procedures to integrate and synchronize information-related capabilities across all-domains with personnel recovery operations to enable support and recovery of isolated personnel in an anti-access/area denial environment. Upon the appropriation of FY 2022 funding, the JT&E program will charter additional projects commensurate with that funding. New projects will be nominated by Combatant Commands, Services, and Office of the Secretary of Defense agencies; representatives of these same organizations will prioritize the nominated projects for the available funding.

Test and Evaluation Threat Resource Activity (TETRA)

In FY 2022, Threat Systems will continue test planning working group participation and perform technical analyses to identify threat shortfalls; aligns with the NDS requirements; conduct special studies and provide current intelligence support tailored to specific U.S. weapon systems acquisitions based on the availability of funding. Threat Systems will:

- Execute initiatives that directly influence or improve the areas of software intensive systems and cybersecurity.
- Execute initiatives by moving to digital engineering via accredited models and simulation.
- Execute initiatives to “Shift Left” with integrated developmental and operational testing.
- Execute initiatives to improve the test environments.
- Execute initiatives of growing importance on human-system interaction.
- Execute initiatives of adapting T&E for emergent technologies.
- Execute initiatives to develop test capability for emerging technologies within the space and hypersonics arena to address current and potential threats.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / OTA&A

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Execute initiatives to understand and develop T&amp;E infrastructure, tools and processes for emerging capabilities and threats (i.e. hypersonics, directed energy, artificial intelligence, machine learning, infrared (IR) and radio frequency (RF), 5th Generation Aerial Target (5GAT), automated &amp; autonomous cybersecurity testing, and neural networks.)</li> <li>- Continue to support the reduction in acquisition and test timelines while increasing test capabilities against near peer threats.</li> <li>- Continue to foster rapid technological advancements in the areas of threat representation for T&amp;E and threat test resources by incorporating innovative technologies from the intelligence community into threat test assets to provide improved test fidelity and performance with cost savings.</li> <li>- Continue identifying initiatives to improve cyberspace threat representation and prediction, cyber-economic threats to DOD systems and scalable cyberspace threat test environments that can interface with cyber test networks.</li> <li>- Continue identifying initiatives to conduct offensive cyber operations (OCO) and defensive cyber operations (DCO) without significantly impacting critical operational capabilities.</li> <li>- Continue the development of an Advanced Satellite Navigation Receiver (ASNR) for an open service Global Positioning System / Inertial Measurement Unit (GPS/IMU) coupled high-fidelity, high dynamic next generation Time Space Position Information (TSPI) system to support future missile tests and Joint Standard Instrumentation Suite (JSIS) flight testing.</li> <li>- Complete implementation of Combined Federated Battle Laboratories Network (CFBLNet) ) to develop network capability that will support the Multi National Test and Evaluation Program (MTEP) TMAP ITASE Chimera Live Environment (MTICLE) test requirements with Coalition partners.</li> <li>- Continue development of cognitive radar definition, intelligence assessment of foreign AI cognitive capability, and white paper to develop model for testing against advanced cognitive radar threats.</li> <li>- Continue to pursue initiatives for improving satellite and space threat representations and developing alternatives for conducting threat realistic operational testing in response to environmental limitations.</li> <li>- Continue to support the U.S. warfighter by providing threat intelligence relevant to emerging threats such as artificial intelligence, autonomy, robotics, directed energy, hypersonic and biotechnology to ensure operational and developmental testing occurs against realistic threat representations, including (but not limited to) threats from both revisionist powers such as China and Russia threats from rogue regimes such as North Korea and Iran, and threats from non-state actors.</li> <li>- Continue to conduct threat intelligence investigations that support use of innovative technologies in the areas of AI, autonomy, robotics, machine learning (ML), quantum computing, lasers, nanotechnology, chemical and biological, directed energy, hypersonic and biotechnology being developed by nation states to improve threat representation in the contested domain of air, land, sea, space and cyberspace.</li> <li>- Continue to support initiatives for the development of Great Power threat representative jammers, for use in terrain constricted tests as a directional active electronically steered array jammer that will limit Federal Aviation Administration and other common jammer restrictions/acceptance/endorsement for T&amp;E use.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / <i>OTA&amp;A</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue to sustain and manage threat M&amp;S to support test and evaluation by overseeing and coordinating intelligence community developed threat models, performing threat model anomaly resolution resolving differences from live fire testing, integrating threat models into T&amp;E facilities and distributing performance and signature models to T&amp;E users.</li> <li>- Continue to represent DOT&amp;E at foreign material exchanges, NATO, Allied Intelligence, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&amp;E needs for foreign materiel, coordinate service requirements, and de-conflict and prioritize foreign materiel requirements for T&amp;E.</li> <li>- Continue to provide intelligence support to DOT&amp;E staff to address specific questions on threat systems affecting programs on the OSD T&amp;E Oversight list and provide briefings and special intelligence reports when necessary.</li> <li>- Continue providing DOT&amp;E representative support at the Threat Steering Group (TSG) in support of the Validated Online Lifecycle Threat (VOLT) Report process.</li> <li>- Continue to represent DOT&amp;E interests on the Intelligence Acquisition Agility Working Group (IAAWG) and</li> <li>- Continue to represent DOT&amp;E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition.</li> <li>- Continue to serve DOT&amp;E's interests on the Executive Steering Group (ESG) and provide access to the Intelligence Mission Data Management Analysis &amp; Reporting System (IMARS).</li> <li>- Continue to manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD Oversight T&amp;E List by conducting intelligence "deep dives" to produce intelligence in sufficient detail to develop new threat test assets.</li> <li>- Continue the independent review of validation reports to ensure the correct threat data and critical parameters are presented in the reports to assess the threat representations' capabilities to replicate a real-world threat system.</li> <li>- Oversee legacy DOT&amp;E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments.</li> <li>- Continue to provide threat intelligence and validation support at the JASP reviews to ensure there is no duplication of effort and independently ensure the correct threat data and critical parameters are presented to assess the real-world threat representations.</li> <li>- Continue to serve as the T&amp;E Resources and Infrastructure Working Group (RIWG) DOT&amp;E lead for Targets and Threat Systems investments.</li> <li>- Serve as the DOT&amp;E agent for oversight in the coordination, development and execution of all Test Resource Management Center-funded projects within RIWG's Strategic and Foundational Portfolios.</li> <li>- Continue reviewing Threat Systems investments to prevent any duplication of effort and encourage cost savings by the sharing or multi-service use of newly developed threat representations to T&amp;E.</li> <li>- Continue to lead Allied and NATO initiatives, tests, intelligence, and modeling and simulation collaborative capability.</li> </ul> <p>Threat Systems will continue its efforts to improve significantly the standards set of threat performance models as the global threat environment evolves. Funds requested for these activities help DOT&amp;E carry out its Title 10 responsibilities to assess</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / <i>OTA&amp;A</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>test adequacy and determine whether testing is threat realistic and suitable, promotes common solutions to Service threat representation needs and ultimately supports the warfighter.</p> <p>The Center for Countermeasures (CCM) CCM will continue to emphasize support of the DOT&amp;E enterprise, with a clear focus on Title 10 oversight programs, Aircraft Survivability Equipment (ASE), Directed Energy Weapon (DEW), Counter-Unmanned Aircraft System (C-UAS), and warfighter training events. CCM expects to increase focus on DEW and other critical technology areas, which will contribute to the testing of future weapons and the understanding of emerging threats. CCM's ability to provide unique test equipment and expertise will remain a benefit to all Services, and the ongoing Improvement and Modernization plans will ensure test capabilities are provided at a cost savings across the DoD. Additional instrumentation, personnel, and training will be key to ensuring our ongoing test support continues to add significance in emerging technology areas.</p> <p>CCM will continue to build critical test and evaluation capabilities and the workforce necessary to evaluate emerging DEW war fighting technologies. This includes mobile, open-air DEW data collection and analysis capabilities that will support the T&amp;E of the rapid prototyping and fielding needs of these systems. The mobile test capability will allow T&amp;E of operational representative test scenarios in an open air environment to support the accelerated development and fielding of DEW within the DoD.</p> <p><b>FY 2023 Plans:</b> Joint Test and Evaluation (JT&amp;E) In FY 2023, JT&amp;E plans to start one new Joint Test project and five new Quick Reaction Test projects. With restored fiscal year funding profiles, JT&amp;E plans to convene senior leader boards to find efficiencies in the program's processes and start new projects that address relevant joint warfighting issues in a joint test and evaluation environment.</p> <p>Test and Evaluation Threat Resource Activity (TETRA) In FY 2023, Threat Systems will continue test planning working group participation and perform technical analyses to identify threat shortfalls; aligns with the National Defense Strategy (NDS) requirements; conduct special studies and provide current intelligence support tailored to specific U.S. weapon systems acquisitions based on the availability of funding. Threat Systems will:</p> <ul style="list-style-type: none"> <li>- Execute initiatives that directly influence or improve the areas of Software Intensive Systems and Cybersecurity.</li> <li>- Execute initiatives by moving to Digital engineering via accredited models and simulation.</li> <li>- Execute initiatives to "Shift Left" with Integrated Developmental and Operational Testing.</li> <li>- Execute initiatives to Improve the Test Environments.</li> <li>- Execute initiatives of Growing Importance on Human-System Interaction.</li> <li>- Execute initiatives of Adapting T&amp;E for Emergent Technologies.</li> <li>- Execute initiatives to develop test capability for emerging technologies within the Space and Hypersonics arena to address current and potential threats.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / OTA&A

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Execute initiatives to understand and develop T&amp;E infrastructure, tools and processes for emerging capabilities and threats (hypersonics, directed energy, artificial intelligence, machine learning, infrared (IR) and radio frequency (RF), 5th Generation Aerial Target (5GAT), automated &amp; autonomous cybersecurity testing, and neural networks.</li> <li>- Continue to support the reduction in acquisition and test timelines while increasing test capabilities against Great Power threats.</li> <li>- Continue to foster rapid technological advancements in the areas of threat representation for T&amp;E and threat test resources by incorporating innovative technologies from the intelligence community into threat test assets to provide improved test fidelity and performance with cost savings.</li> <li>- Continue identifying initiatives to improve cyberspace threat representation and prediction, cyber-economic threats to DoD systems and scalable cyberspace threat test environments that can interface with cyber test networks.</li> <li>- Continue identifying initiatives to conduct offensive cyber operations (OCO) and defensive cyber operations (DCO) without significantly impacting critical operational capabilities.</li> <li>- Based on the availability of funding, complete the development of an Advanced Satellite Navigation Receiver (ASNR) for an open service Global Positioning System / Inertial Measurement Unit (GPS/IMU) coupled high-fidelity, high dynamic next generation Time Space Position Information (TSPI) system to support future missile tests and Joint Standard Instrumentation Suite (JSIS) flight testing.</li> <li>- Develop and build threat representative decoys and shells to support tests conducted on the ranges.</li> <li>- Complete development of cognitive radar definition and white paper to develop model for testing against advanced cognitive radar threats.</li> <li>- Continue to pursue initiatives for improving satellite and space threat representations and developing alternatives for conducting threat realistic operational testing in response to environmental limitations.</li> <li>- Continue to support the US warfighter by providing threat intelligence relevant to emerging threats such as artificial intelligence, autonomy, robotics, directed energy, hypersonic and biotechnology to ensure operational and developmental testing occurs against realistic threat representations, including (but not limited to) threats from both revisionist powers such as China and Russia threats from rogue regimes such as North Korea and Iran, and threats from non-state actors.</li> <li>- Continue to conduct threat intelligence investigations that support use of innovative technologies in the areas of artificial intelligence (AI), autonomy, robotics, machine learning (ML), quantum computing, lasers, nanotechnology, chemical and biological, directed energy, hypersonic and biotechnology being developed by nation states to improve threat representation in the contested domain of air, land, sea, space and cyberspace.</li> <li>- Continue to support initiatives for the development of Great Power threat representative jammers, for use in terrain constricted tests as a directional active electronically steered array jammer that will limit Federal Aviation Administration and other common jammer restrictions/acceptance/endorsement for T&amp;E use.</li> <li>- Continue to sustain and manage threat M&amp;S to support test and evaluation by overseeing and coordinating intelligence community developed threat models, performing threat model anomaly resolution resolving differences from live fire testing, integrating threat models into T&amp;E facilities and distributing performance and signature models to T&amp;E users.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Operational Test and Evaluation, Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / <i>OTA&amp;A</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue to represent DOT&amp;E at foreign material exchanges, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&amp;E needs for foreign materiel, coordinate service requirements, and de-conflict and prioritize foreign materiel requirements for T&amp;E.</li> <li>- Continue to provide intelligence support to DOT&amp;E staff to address specific questions on threat systems affecting programs on the OSD T&amp;E Oversight list and provide briefings and special intelligence reports when necessary.</li> <li>- Continue providing DOT&amp;E representative support at the Threat Steering Group (TSG) in support of the Validated Online Lifecycle Threat (VOLT) Report process.</li> <li>- Continue to represent DOT&amp;E interests on the Intelligence Acquisition Agility Working Group (IAAWG) and</li> <li>- Continue to represent DOT&amp;E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition.</li> <li>- Continue to serve DOT&amp;E's interests on the Executive Steering Group (ESG) and provide access to the Intelligence Mission Data Management Analysis &amp; Reporting System (IMARS).</li> <li>- Continue to manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD Oversight T&amp;E List by conducting intelligence "deep dives" to produce intelligence in sufficient detail to develop new threat test assets.</li> <li>- Continue ITEAMS efforts leading to the development of new threat systems for T&amp;E.</li> <li>- Continue the independent review of validation reports to ensure the correct threat data and critical parameters are presented in the reports to assess the threat representations' capabilities to replicate a real-world threat system.</li> <li>- Oversee legacy DOT&amp;E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments.</li> <li>- Continue to provide threat intelligence and validation support at the Joint Aircraft Survivability Program (JASP) reviews to ensure there is no duplication of effort and independently ensure the correct threat data and critical parameters are presented to assess the real-world threat representations.</li> <li>- Continue to serve as the Test and Evaluation (T&amp;E) Resources and Infrastructure Working Group (RIWG) DOT&amp;E lead for Targets and Threat Systems investments.</li> <li>- Continue to serve as the DOT&amp;E agent for oversight in the coordination, development and execution of all Test Resource Management Center-funded projects within RIWG's Strategic and Foundational Portfolios.</li> <li>- Continue reviewing Threat Systems investments to prevent any duplication of effort and encourage cost savings by the sharing or multi-service use of newly developed threat representations to T&amp;E.</li> <li>- Continue to lead Allied and NATO initiatives, tests, intelligence, and modeling and simulation collaborative capability.</li> </ul> <p>Threat Systems will continue its efforts to improve significantly the standards set of threat performance models as the global threat environment evolves. Funds requested for these activities help DOT&amp;E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is threat realistic and suitable, promotes common solutions to Service threat representation needs and ultimately supports the warfighter.</p>			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Operational Test and Evaluation, Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 000920 / OTA&A
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
<p>- Continue to create standard operating procedures for DOT&amp;E Action Officer intelligence support to reduce risk and capability.</p> <p>The Center for Countermeasures (CCM) CCM will continue to emphasize support of the DOT&amp;E enterprise, with a clear focus on Title 10 oversight programs, ASE, DEW, C-UAS, and warfighter training events. CCM expects to increase focus on additional DoD critical technology areas that may have T&amp;E gaps, which will contribute to the testing of future weapons and the understanding of emerging threats. CCM's ability to provide unique test equipment and expertise will remain a benefit to all Services, and the ongoing Improvement and Modernization plans will ensure test capabilities are provided at a cost savings across the DoD. Additional instrumentation, personnel, and training will be key to ensuring our ongoing test support continues to add significance in emerging technology areas.</p> <p>CCM will continue to build critical test and evaluation capabilities and the workforce necessary to evaluate emerging war fighting technologies. This includes mobile, open-air data collection and analysis capabilities that will support the T&amp;E of the rapid prototyping and fielding needs of these systems. The mobile test capability will allow T&amp;E of operational representative test scenarios in an open air environment to support the accelerated development and fielding of CM systems within the DoD.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> FY 2023 programmatic increase from FY 2022 reflects restoral of the Joint Test and Evaluation program funding.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	69.939	42.648	57.718

	FY 2021	FY 2022
<b><i>Congressional Add:</i></b> Program Increase: Lab and Test Range Upgrades	-	25.000
<b><i>FY 2022 Plans:</i></b> The program increase will fund Operational Test and Evaluation investments in test infrastructure to demonstrate new capabilities under operationally relevant conditions against realistic threats for lab and test range upgrades in the following: directed energy and targets.		
<b>Congressional Adds Subtotals</b>	-	25.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Space Development Agency**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Space Development Agency • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 817**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 829**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 831**  
**Exhibit R-2s..... Volume 5 - 833**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division C P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	267,116	1,376,817				
Total Research, Development, Test & Evaluation	267,116	1,376,817				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

13 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		1,376,817	
Total Research, Development, Test & Evaluation		1,376,817	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Advanced Technology Development	69,914	172,638				
Advanced Component Development & Prototypes	187,953	1,204,179				
Management Support	9,249					
Total Research, Development, Test & Evaluation	267,116	1,376,817				
Summary Recap of FYDP Programs -----						
Research and Development	9,249					
Space	257,867	1,376,817				
Total Research, Development, Test & Evaluation	267,116	1,376,817				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

13 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Technology Development		172,638	
Advanced Component Development & Prototypes		1,204,179	
Management Support			
Total Research, Development, Test & Evaluation		1,376,817	
Summary Recap of FYDP Programs -----			
Research and Development			
Space		1,376,817	
Total Research, Development, Test & Evaluation		1,376,817	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Advanced Technology Development	69,914	172,638				
Advanced Component Development & Prototypes	187,953	1,204,179				
Management Support	9,249					
Total Research, Development, Test & Evaluation	267,116	1,376,817				
Summary Recap of FYDP Programs -----						
Research and Development	9,249					
Space	257,867	1,376,817				
Total Research, Development, Test & Evaluation	267,116	1,376,817				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

13 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Technology Development		172,638	
Advanced Component Development & Prototypes		1,204,179	
Management Support			
Total Research, Development, Test & Evaluation		1,376,817	
Summary Recap of FYDP Programs -----			
Research and Development			
Space		1,376,817	
Total Research, Development, Test & Evaluation		1,376,817	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division C P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Space Development Agency	267,116	1,376,817				
Total Research, Development, Test & Evaluation	267,116	1,376,817				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

13 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Space Development Agency		1,376,817	
Total Research, Development, Test & Evaluation		1,376,817	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N S P.L. 117-103 Enactment**** c	
73	1206310	SDA Space Science and Technology Research and Development	03	69,914	172,638					U
		Advanced Technology Development		69,914	172,638					
121	1206410	SDA Space Technology Development and Prototyping	04	187,953	1,204,179					U
		Advanced Component Development & Prototypes		187,953	1,204,179					
164	0605502	SDA Small Business Innovative Research Management Support	06	9,249						U
				9,249						
Total Research, Development, Test & Eval, DW				267,116	1,376,817					

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Section
--	-----	----	---	-----	-----	-----	-
73	1206310SDA	Space Science and Technology Research and Development	03		172,638		U
		Advanced Technology Development			172,638		
121	1206410SDA	Space Technology Development and Prototyping	04		1,204,179		U
		Advanced Component Development & Prototypes			1,204,179		
164	0605502SDA	Small Business Innovative Research	06				U
		Management Support					
Total Research, Development, Test & Eval, DW					1,376,817		

UNCLASSIFIED

Space Development Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	S e c
73	1206310	SDA Space Science and Technology Research and Development	03	69,914	172,638					U
		Advanced Technology Development		69,914	172,638					
121	1206410	SDA Space Technology Development and Prototyping	04	187,953	1,204,179					U
		Advanced Component Development & Prototypes		187,953	1,204,179					
164	0605502	SDA Small Business Innovative Research Management Support	06	9,249						U
				9,249						
Total Space Development Agency				267,116	1,376,817					

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16  
 \*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).  
 \*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).  
 \*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).  
 \*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Space Development Agency  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Sec
--	-----	----	---	-----	-----	-----	-
73	1206310SDA	Space Science and Technology Research and Development	03		172,638		U
		Advanced Technology Development			172,638		
121	1206410SDA	Space Technology Development and Prototyping	04		1,204,179		U
		Advanced Component Development & Prototypes			1,204,179		
164	0605502SDA	Small Business Innovative Research	06				U
		Management Support					
Total Space Development Agency					1,376,817		

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 13, 2022 at 08:16:16

**UNCLASSIFIED**

Space Development Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
73	03	1206310SDA	Space Science and Technology Research and Development.....	Volume 5 - 833

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
121	04	1206410SDA	Space Technology Development and Prototyping.....	Volume 5 - 837

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
164	06	0605502SDA	Small Business Innovation Research (SBIR).....	Volume 5 - 875

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Space Development Agency • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Small Business Innovation Research (SBIR)	0605502SDA	164	06.....	Volume 5 - 875
Space Science and Technology Research and Development	1206310SDA	73	03.....	Volume 5 - 833
Space Technology Development and Prototyping	1206410SDA	121	04.....	Volume 5 - 837

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1206310SDA / <i>Space Science and Technology Research and Development</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	69.914	172.638	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
012: <i>Space Development Agency R&amp;E</i>	0.000	69.914	172.638	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-

**Note**

In accordance with the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021, effective on October 1, 2022, SDA will be an element of the U.S. Space Force (USSF), and report to Assistant Secretary of the Air Force (ASAF) for Space Acquisition and Integration (ASAF/SA&I) with respect to acquisition decisions and directly to the Chief of Space Operations with respect to requirements decisions, personnel decisions, and any other matter not covered by ASAF/SA&I. This program and funding continue in FY 2023 forward under Appropriation 3620, Research, Development, Test & Evaluation, Space Force, PE 1206310SF.

**A. Mission Description and Budget Item Justification**

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of the Department of Defense (DoD) space needs as stated in the National Defense Strategy and the DoD Space Vision, including low-latency tactical communication, beyond-line-of-sight targeting, and advanced missile tracking. Specifically, SDA will demonstrate and field persistent, resilient capabilities needed to be responsive to emerging multi-domain threats against the U.S. national interest. SDA is responsible for the overall programmatic development and execution of a National Defense Space Architecture (NDSA). In coordination with other DoD Space stakeholders, SDA will drive the development of space capabilities to achieve the DoD Space Vision and reduce overlap and inefficiency. SDA will expand the DoD's space warfighting capability and foster growth in the U.S. space industrial base, by developing enhanced government-commercial relationships and international collaborations with key allies and partners.

While SDA is not responsible for building and fielding all capabilities within the NDSA, the Agency is responsible for orchestrating and architecting the NDSA and ensuring capability delivery to the warfighter following a spiral development approach. SDA is building and fielding the Transport Layer, a proliferated constellation of satellites to provide low-latency, high-volume data to the warfighter. This transport layer will provide the space-based data transport backbone for Joint All-Domain Command and Control (JADC2).

The establishment of a proliferated data transport layer is essential to developing a new and responsive space architecture. SDA will leverage the Transport Layer to integrate and deliver multiple warfighting capabilities, such as advanced missile warning and tracking, 24/7/365 custody of time critical targets, and alternative position, navigation and timing (PNT) in navigation warfare (NAVWAR) resilient environments.

This program element funds efforts to develop and demonstrate a prototype proliferated communications and data transport layer and other capability layers in support of the National Defense Strategy.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Space Development Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1206310SDA / <i>Space Science and Technology Research and Development</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	72.422	172.638	0.000	0.000	0.000
Current President's Budget	69.914	172.638	0.000	0.000	0.000
Total Adjustments	-2.508	0.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.508	-			

**Change Summary Explanation**

FY 2021 funding in the amount of \$2.508 million was transferred to SBIR/STTR PE 0605502SDA.

Funding continues in FY 2023 and out under Appropriation 3620, Research, Development, Test & Evaluation, Space Force, PE 1206310SF.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 1206310SDA / <i>Space Science and Technology Research and Development</i>				<b>Project (Number/Name)</b> 012 / <i>Space Development Agency R&amp;E</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
012: <i>Space Development Agency R&amp;E</i>	0.000	69.914	172.638	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

Funding for FY 2023 and future years has been transferred to a new Program Element (PE), 1206310SF, under the U.S. Space Force (USSF), Research, Development, Test and Evaluation, appropriation.

**A. Mission Description and Budget Item Justification**

The Space Development Agency (SDA) is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including low-latency tactical communication, beyond line of sight targeting, and advanced missile tracking. SDA will orchestrate the rapid development and fielding of the National Defense Space Architecture (NDSA), a resilient military sensing and data transport capability via a proliferated space architecture in low-earth orbit.

This program element funds the research and development activity to deliver capabilities to U.S. joint warfighting forces in two-year tranches, beginning in FY 2022, including performing trade studies, technical analyses, or modeling and simulation; identifying and maturing enabling technologies; defining and conducting risk reduction demonstrations, prototyping hardware or software systems; and exploring novel concepts for future warfighting capabilities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Space Development Agency R&E	69.914	172.638	-
<b>Description:</b> Research and development activities to support development, demonstration, and fielding of a resilient military sensing and data transport capability via a proliferated space architecture in Low Earth Orbit (LEO).			
<b>FY 2022 Plans:</b>			
Tranche 0			
- Demonstrate alternate position, navigation, and timing orbit and clock software.			
- Perform ground-based processing of missile tracking scene data collected in FY 2021.			
- Develop and conduct ground-based demonstration of multi-intelligence data fusion algorithms on flight-like systems and in flight-like environments.			
- Develop algorithms for integrated battle management, command, control, and communications (BMC3) applications.			
Tranche 1			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1206310SDA / <i>Space Science and Technology Research and Development</i>	<b>Project (Number/Name)</b> 012 / <i>Space Development Agency R&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
- Begin Transport space vehicle system design. - Continue design and analysis efforts for TACSATCOM payloads planned for demonstration in Tranche 1 and proliferation beginning with NDSA Tranche 2. - Complete space vehicle-specific interface control documents for Partner Payload Program participants.  <b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The program continues in the USSF PE 1206310SF.			
<b>Accomplishments/Planned Programs Subtotals</b>	69.914	172.638	-

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• RDTE BA 03: <i>1206310SF, Space Science &amp; Technology R&amp;D</i>	0.000	0.000	460.820	0.000	460.820	690.386	527.806	540.040	550.556	Continuing	Continuing

**Remarks**  
N/A

**D. Acquisition Strategy**  
Partners for these activities include DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, University Affiliated Research Centers, Missile Defense Agency (MDA), and Space Systems Command (SSC). SDA is also a transition partner for technology developers seeking to conduct on-orbit experimentation and prototyping.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	187.953	1,204.179	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
001: <i>Transport</i>	0.000	0.000	260.481	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
002: <i>Sensing</i>	0.000	0.000	837.112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
003: <i>Integration and Battle Management</i>	0.000	0.000	106.586	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
033: <i>Transport Layer Architecture and Standards</i>	0.000	26.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
034: <i>Space Situational Awareness and Launch</i>	0.000	23.601	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
039: <i>Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration</i>	0.000	31.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
196: <i>Space Technology Development</i>	0.000	106.928	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-

**Note**

This program and funding continue in FY 2023 and out under Appropriation 3620, Research, Development, Test & Evaluation, Space Force, PE 1206410SF. In accordance with the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021, effective on October 1, 2022, the Space Development Agency (SDA) will be an element of the U.S. Space Force (USSF), and report to Assistant Secretary of the Air Force (ASAF) for Space Acquisition and Integration (ASAF/SA&I) with respect to acquisition decisions and directly to the Chief of Space Operations with respect to requirements decisions, personnel decisions, and any other matter not covered by ASAF/SA&I.

**A. Mission Description and Budget Item Justification**

SDA is responsible for developing and demonstrating the next generation space architecture to enable U.S. military operations to be responsive to emerging multi-domain threats against our national security. To achieve that goal, SDA will help inform the Department of Defense (DoD)'s decision to develop and implement a proliferated architecture enabled by lower-cost, mass-produced spacecraft and routine space access; shift the DoD to a development organization focused on experimentation, prototyping, and accelerated fielding. SDA will manage, direct, and execute the development of the space capabilities for the joint warfighter in accordance with DoD's Space Vision and field space capabilities at speed and scale, with the following goals:

- Bold breakthroughs designed to out-pace our competitors,
- Technology maturation and systems engineering,

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Space Development Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>
---	---

- Lean engineering, manufacturing, and support,
- Industrial base expansion; streamlined development and acquisition process, and
- Increased acquisition cooperation with the National Reconnaissance Office (NRO).

SDA will rapidly deploy critical elements of next-generation space capabilities, initially focusing on these essential capabilities:

- Persistent global surveillance for advanced missile targeting,
- Indications, warnings, targeting, and tracking for defense against advanced missile threats,
- Alternate position, navigation, and timing (PNT) for a navigation warfare (NAVWAR) resilient environment,
- Global and near-real time space situational awareness,
- Responsive, resilient, common ground-based space support infrastructure (e.g., ground stations and launch capability),
- Cross-domain, networked, node-independent battle management command, control, and communications (BMC3), and
- Highly-scaled, low-latency, persistent, artificial intelligence-enabled global surveillance.

The establishment of a data transport layer in Low Earth Orbit (LEO) is essential to developing a new, responsive space architecture, and will be SDA's primary initial focus within the National Defense Space Architecture (NDSA). SDA will develop an initial set of sub-constellations on this Transport Layer to provide additional capabilities, such as advanced missile warning.

This program element funds efforts to develop and demonstrate a prototype proliferated Low Earth Orbit (pLEO) communications and data transport layer and its sub-constellations in support of the DoD Space Vision.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	194.694	636.179	0.000	0.000	0.000
Current President's Budget	187.953	1,204.179	0.000	0.000	0.000
Total Adjustments	-6.741	568.000	0.000	0.000	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	580.000			
• Congressional Directed Transfers	-	-12.000			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.741	-			

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 001: *Transport*

<b>FY 2021</b>	<b>FY 2022</b>



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>
---	---

<b>Congressional Add Details (\$ in Millions, and Includes General Reductions)</b>	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add: <i>Laser Communication Router Demonstration System</i>	-	12.000
Congressional Add Subtotals for Project: 001		
	-	12.000
<b>Project: 002: Sensing</b>		
Congressional Add: <i>Missile Tracking Demonstration (Tracking Layer)</i>	-	550.000
Congressional Add Subtotals for Project: 002		
	-	550.000
<b>Project: 003: Integration and Battle Management</b>		
Congressional Add: <i>Space Networking Centers</i>	-	18.000
Congressional Add Subtotals for Project: 003		
	-	18.000
Congressional Add Totals for all Projects		
	-	580.000

**Change Summary Explanation**

FY 2021 funding in the amount of \$6.741 million was transferred to SBIR/STTR PE 0605502SDA.

FY 2022 Congressional marks resulted in a net gain of \$568.000 million. Project 001 (Transport) was increased by \$12.000 million to develop a laser communication router demonstration system and decreased by \$12.000 million for the Congressional Directed Transfer to SDA's Procurement PE (1203953SDA - Line Item NSSL01) for Tranche 1 launch. Project 001 also includes a transfer of \$20.000 million from SDA Tranche 1 satellite cost savings to be used for SDA Tranche 1 launch Integration. Project 002 (Sensing) was increased by \$550.000 million to develop a Missile Tracking demonstration (Tracking Layer) in support of USINDOPACOM's needs. Project 003 (Integration and Battle Management) was increased by \$18.000 million for the Space Networking Centers in Redstone Arsenal, AL and Grand Forks, ND.

Starting in FY 2023, the program and funding for PE 1206410SDA has been transferred to Appropriation 3620, RDT&E, Space Force, PE 1206410SF.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 001 / <i>Transport</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
001: <i>Transport</i>	0.000	0.000	260.481	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

In FY 2022, funding was realigned from Project 033 (Transport Layer Architecture and Standards) and Project 196 (Space Technology Development) into this project code (Project 001) to continue the development and fielding of the National Defense Space Architecture (NDSA). This project code was established to better align budget exhibits with the current Space Development Agency (SDA) construct. Funding in FY 2023 and future years has been transferred to Program Element (PE) 1206410SF under the U.S. Space Force (USSF).

**A. Mission Description and Budget Item Justification**

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including low-latency tactical communication enabling beyond line of sight targeting and advanced missile tracking. SDA is orchestrating the rapid development and fielding of the National Defense Space Architecture (NDSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver low-latency data transport and alternate position, navigation, and timing capabilities to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2022.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Transport	0.000	248.481	-
<b>Description:</b> Rapidly develop, deploy and demonstrate prototypes that enable a resilient and unified military data transport layer, sensor capabilities, and alternate position, navigation, and timing (APNT) capabilities enabled by a proliferated Low Earth Orbit (pLEO) architecture. This effort will define, demonstrate, and deliver the architectures and standards necessary to rapidly prototype and field new satellite capabilities in LEO.			
<b>FY 2022 Plans:</b> Tranche 0: - Finalize design and development of Transport warfighter immersion constellation. - Develop, integrate and test 20 Transport Tranche 0 space vehicles. - Complete Tranche 0 interoperability verification testing at Government hardware-in-the-loop (HWIL) test facility. - Ready flight missions for initial tranche operations. - Finalize plans for Tranche 0 capstone demonstrations. - Complete first launch of Tranche 0 satellites.			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 001 / <i>Transport</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
- Complete all operations preparations at Naval Research Laboratory Blossom Point Tracking Facility in advance of satellite launch, early operations and full orbital check out.  Tranche 1: - Conduct source selection and contract initialization for Transport Tranche 1 satellites. - Conduct source selection and contract initialization for Operations and Integration (constellation, network and mission ground systems) for Transport Tranche 1 capability. - Conduct source selection and contract initialization for Tranche 1 Demonstration and Experimentation System (T1DES). - Mature design of Transport Tranche 1 satellites. - Design Battle Management, Command, Control and Communications (BMC3) Interoperability and Security Layer for Transport Tranche 1 capability.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding in FY 2023 and future years has been transferred to a new PE under the USSF, 1206410SF.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	248.481	-

	FY 2021	FY 2022
<b>Congressional Add:</b> Laser Communication Router Demonstration System  <b>FY 2022 Plans:</b> Conduct additional development and testing for space to air capabilities required in three areas: noncoherent laser communication development and testing from space vehicle to airborne platform; modem development and design for small Size, Weight, and Power (SWaP) associated with limited real estate associated with airborne vehicles; and the command and control associated with commanding a SV to communicate with a specific airborne platform in a very defined geographic region. Conduct contract initialization of vendors to support these three areas.	-	12.000
<b>Congressional Adds Subtotals</b>	-	12.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	<b>Cost To Complete</b>	<b>Total Cost</b>
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Complete</u>	<u>Total Cost</u>
• RDTE 04: <i>1206410SF, Space Technology Development and Prototyping, Project: Transport</i>	0.000	0.000	816.442	0.000	816.442	1,448.089	1,317.715	1,484.437	1,517.891	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 001 / <i>Transport</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
------------------	----------------	----------------	-------------------------------	------------------------------	--------------------------------	----------------	----------------	----------------	----------------	-----------------------------------	-------------------

**Remarks**

**D. Acquisition Strategy**

Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), DoD Combatant Commands, DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers. Tranche 1 has been approved to Middle Tier of Acquisition, enabling rapid prototyping.

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Space Development Agency										Date: April 2022		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 1206410SDA / Space Technology Development and Prototyping					Project (Number/Name) 001 / Transport		

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Transport Tranche 0	C/FFP	Lockheed Martin : Littleton, CO	0.000	0.000		101.903	Oct 2021	0.000		0.000		0.000	-	-	-
Transport Tranche 0	C/FFP	York Space Systems : Denver, CO	0.000	0.000		51.924	Jan 2022	0.000		0.000		0.000	-	-	-
Transport Tranche 1	C/FFP	Lockheed Martin : Littleton, CO	0.000	0.000		36.958	Feb 2022	0.000		0.000		0.000	-	-	-
Transport Tranche 1	C/FFP	York Space Systems : Denver, CO	0.000	0.000		22.023	Feb 2022	0.000		0.000		0.000	-	-	-
Tranche 1 Crypto Risk Reduction	SS/TBD	Missile Defense Agency (MDA) : Ft. Belvoir, VA	0.000	0.000		1.689	Mar 2022	0.000		0.000		0.000	-	-	-
Transport Tranche 1	C/CPFF	TBD : TBD	0.000	0.000		33.984	Sep 2022	0.000		0.000		0.000	-	-	-
Laser Communication Router Demonstration System	C/TBD	TBD : TBD	0.000	0.000		12.000	Sep 2022	0.000		0.000		0.000	-	-	-
<b>Subtotal</b>			0.000	0.000		260.481		0.000		0.000		0.000	-	-	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	0.000	260.481	0.000	0.000	0.000	-	-	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 001 / <i>Transport</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Transport</b>	
Complete the development of Transport Tranche 0 space vehicles.	██████████
Launch and early operations of Tranche 0 Transport satellites.	██████████
Begin design and development of Tranche 1 Transport Layer space vehicle systems.	████████████████████
Begin design and development of Tranche 1 Transport Layer ground systems and operations plans.	████████████████████
<b>Laser Communication Router Demonstration System</b>	
Perform technology evaluations to inform requirements for space to air capabilities and laser communication router demonstration system.	██████████
Develop laser communication router demonstration system.	██████████
Test and evaluate developed laser communication router demonstration system.	██████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 001 / <i>Transport</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Transport</i></b>				
Complete the development of Transport Tranche 0 space vehicles.	1	2022	4	2022
Launch and early operations of Tranche 0 Transport satellites.	4	2022	2	2023
Begin design and development of Tranche 1 Transport Layer space vehicle systems.	2	2022	4	2023
Begin design and development of Tranche 1 Transport Layer ground systems and operations plans.	3	2022	4	2023
<b><i>Laser Communication Router Demonstration System</i></b>				
Perform technology evaluations to inform requirements for space to air capabilities and laser communication router demonstration system.	3	2022	4	2022
Develop laser communication router demonstration system.	2	2023	3	2023
Test and evaluate developed laser communication router demonstration system.	3	2023	4	2023

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 002 / <i>Sensing</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
002: <i>Sensing</i>	0.000	0.000	837.112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

Funding was realigned from Project 039 (Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration) and Project 196 (Space Technology Development) into this project code (Project 002) in FY 2022 to continue the development and fielding of the National Defense Space Architecture (NDSA). This project code was established to better align budget exhibits with the current Space Development Agency (SDA) construct. Funding in FY 2023 and future years has been transferred to a new Program Element (PE) under the U.S. Space Force (USSF), 1206410SF.

**A. Mission Description and Budget Item Justification**

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including advanced missile tracking and global surveillance enabling beyond-line-of-sight targeting. SDA will orchestrate the rapid development and fielding of the National Defense Space Architecture (NDSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver advanced missile tracking, global surveillance, and enhanced space domain awareness and deterrence capabilities to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2022.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Sensing	0.000	287.112	-
<b>Description:</b> Develop and demonstrate payload prototypes compatible with a proliferated Low Earth Orbit (pLEO) architecture. This effort will focus on developing and demonstrating sensors for beyond-line-of-sight targeting, space-to-space data links, space-to-tactical data links, and advanced missile warning/missile tracking capabilities to enable enhanced space domain awareness. On-orbit demonstrations will be tied to existing mission-specific ground infrastructure, when it exists. Ground infrastructure will be linked or developed to support payload integration and data processing.			
<b>FY 2022 Plans:</b> Tranche 0: - Develop Tracking Tranche 0 comprised of Wide Field of View (WFOV) Infrared (IR) satellites. - Integrate Tracking space vehicles with one another and with Transport space vehicles to enable low-latency transport of advanced missile tracking data. - Conduct first launch of Tracking Tranche 0 satellites. - Demonstrate the performance of the IR payloads to detect dim targets with stressing background scenes. - Demonstrate capability to transfer data from tracking layer to existing Joint OPIR Ground (JOG) in standardized formats.			



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 002 / <i>Sensing</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
- Develop and conduct ground-based demonstration of multi-intelligence (multi-INT) data fusion algorithms on flight-like systems and in flight-like environments; validate on orbit via Transport Tranche 0 to maximum extent possible.			
Tranche 1: - Begin identifying potential payload mission partners.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding in FY 2023 and future years has been transferred to a new PE under the USSF, 1206410SF.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	287.112	-

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Missile Tracking Demonstration (Tracking Layer)	-	550.000
<b>FY 2022 Plans:</b> Conduct source selection and contract initialization for Tranche 1 (T1) Tracking Other Transaction Authority agreements to multiple vendors. Develop Tranche 1 Tracking satellites with WFOV and possibly Medium Field of View (MFOV) IR. Develop T1 Tracking payload data management and Ground Stations. Integrate Real-time Transfer Service (RTS) into T1 Tracking Layer Ground Stations.		
<b>Congressional Adds Subtotals</b>	-	550.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• RDTE 04: <i>1206410SF, Space Technology Development and Prototyping, Project: Sensing</i>	0.000	0.000	81.308	0.000	81.308	106.224	36.299	0.000	0.000	Continuing	Continuing
• RDTE 05: <i>1206446SF, Resilient Missile Warning Missile Tracking-Low Earth Orbit (LEO)</i>	0.000	0.000	499.840	0.000	499.840	723.621	802.313	827.201	863.350	Continuing	Continuing
• RDTE 05: <i>1206448SF, Missile Warning/Missile Tracking - Ground - LEO</i>	0.000	0.000	225.800	0.000	225.800	231.700	254.037	260.271	249.276	Continuing	Continuing

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 002 / <i>Sensing</i>

**D. Acquisition Strategy**

Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), DoD Combatant Commands, DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Space Development Agency</b>											<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / Space Technology Development and Prototyping					<b>Project (Number/Name)</b> 002 / Sensing					

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Tracking PIRPL	C/FFP	Northrop Grumman : Redondo Beach, CA	0.000	0.000		0.336	Oct 2021	0.000		0.000		0.000	-	-	-
Tracking Tranche 0	C/FFP	L3Harris : Palm Bay, FL	0.000	0.000		128.782	Nov 2021	0.000		0.000		0.000	-	-	-
Tracking Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	0.000		99.947	Oct 2021	0.000		0.000		0.000	-	-	-
Launch Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	0.000		30.679	Nov 2021	0.000		0.000		0.000	-	-	-
Transport Tranche 1	C/TBD	TBD : TBD	0.000	0.000		27.368	Sep 2022	0.000		0.000		0.000	-	-	-
Tracking Tranche 1	C/FFP	TBD : TBD	0.000	0.000		550.000	Sep 2022	0.000		0.000		0.000	-	-	-
<b>Subtotal</b>			0.000	0.000		837.112		0.000		0.000		0.000	-	-	N/A

<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>					
<b>Project Cost Totals</b>			0.000	0.000		837.112		0.000		0.000	-	-	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 002 / <i>Sensing</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Sensing</b>	
Complete the development of Tracking Tranche 0 space vehicles and integrate with Transport Layer.	████████████████████
Launch and early operations of Tranche 0 Tracking satellites.	████████
Begin planning activities for follow-on tranche capabilities.	████████████████████
Develop multi-INT data fusion and dissemination algorithms.	████████████████████
<b>Missile Tracking Demonstration (Tracking Layer)</b>	
Develop Tranche 1 Tracking satellites	████████████████████
Develop Tranche 1 Tracking payload data management	████████████████████
Develop Tranche 1 Tracking Ground Stations	████████████████████
Integrate into Real-time Transfer Service (RTS)	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 002 / <i>Sensing</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Sensing</b>				
Complete the development of Tracking Tranche 0 space vehicles and integrate with Transport Layer.	1	2022	2	2023
Launch and early operations of Tranche 0 Tracking satellites.	4	2022	2	2023
Begin planning activities for follow-on tranche capabilities.	1	2022	4	2023
Develop multi-INT data fusion and dissemination algorithms.	1	2022	4	2023
<b>Missile Tracking Demonstration (Tracking Layer)</b>				
Develop Tranche 1 Tracking satellites	4	2022	4	2023
Develop Tranche 1 Tracking payload data management	4	2022	4	2023
Develop Tranche 1 Tracking Ground Stations	4	2022	4	2023
Integrate into Real-time Transfer Service (RTS)	4	2022	4	2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>				<b>Project (Number/Name)</b> 003 / <i>Integration and Battle Management</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
003: <i>Integration and Battle Management</i>	0.000	0.000	106.586	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

Funding was realigned from Project 034 (Space Situational Awareness and Launch) and Project 196 (Space Technology Development) into this project code (Project 003) in FY 2022 to continue the development and fielding of the National Defense Space Architecture (NDSA). This project code was established to better align budget exhibits with the current Space Development Agency (SDA) construct. Funding in FY 2023 and future years has been transferred to a new Program Element (PE) under the U.S. Space Force (USSF), 1206410SF.

**A. Mission Description and Budget Item Justification**

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including space-based battle management and a ground support infrastructure. SDA will orchestrate the rapid development and fielding of the National Defense Space Architecture (NDSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver space-based command and control, tasking, mission processing and dissemination capabilities, as well as an integrated, resilient network of ground support capabilities, to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2022.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Integration and Battle Management	0.000	88.586	-
<b>Description:</b> Deliver capabilities to U.S. joint warfighting forces in two-year enhanced capability tranches, beginning in FY 2022. Products include but are not limited to performing trade studies, technical analyses, or modeling and simulation; identifying and maturing enabling technologies; defining and conducting ground-based and on-orbit risk reduction demonstrations, prototyping hardware or software systems; and exploring novel concepts for future warfighting capabilities augmented by a resilient proliferated Low Earth Orbit (pLEO) satellite architecture.			
<b>FY 2022 Plans:</b> Tranche 0: - Conduct hardware-in-the-loop operations to validate Battle Management solutions. - Prepare Naval Research Laboratory’s Blossom Point ground station for Tranche 0 satellite operations. - Complete validation and verification of the Government-owned hardware-in-the-loop testbed capability. - Establish initial SDA ground capability and prepare for Tranche 0 satellite operations.			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 003 / <i>Integration and Battle Management</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
- Launch Tranche 0 satellites.			
Tranche 1: - Develop plans for follow-on tranche capabilities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding in FY 2023 and future years has been transferred to a new PE under the USSF, 1206410SF.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	88.586	-

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Space Networking Centers	-	18.000
<b>FY 2022 Plans:</b> Finalize plans for SDA Space Networking Centers and Ground Entry Point with host installations. Modify/reassemble facility space for SDA's networking and operations centers. Assess existing utilities (HVAC, power, water, etc..) for SDA operations and upgrade as required. Upgrade host installation operational/administrative terrestrial networking services. Conduct development and integration/functionality testing for mission readiness. Prepare SDA's Space Networking Centers (North and South) for Tranche 1 network operations. Establish SDA ground capability and prepare for Tranche 1 network operations.		
<b>Congressional Adds Subtotals</b>	-	18.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• RDTE 04: <i>1206410SF, Space Technology Development and Prototyping, Project: Integration and Battle Management</i>	0.000	0.000	89.072	0.000	89.072	126.094	152.605	43.879	36.978	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), DoD Combatant Commands, DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers.





**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 003 / <i>Integration and Battle Management</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Integration and Battle Management</i></b>	
Complete the development of an initial battle management architecture.	████████████████████
Complete the development of Tranche 0 ground support infrastructure.	████████████████████
Manage Tranche 0 constellation operations.	████████████████████
Begin planning activities for follow-on tranche capabilities.	████████████████████
<b><i>Space Networking Centers</i></b>	
Modify/reassemble facility space, and upgrade existing utilities and terrestrial networking services for SDA's networking and operations centers.	████████████████
Prepare Space Networking Centers and establish SDA ground capability for Tranche 1 network operations.	████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 003 / <i>Integration and Battle Management</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Integration and Battle Management</i></b>				
Complete the development of an initial battle management architecture.	1	2022	4	2023
Complete the development of Tranche 0 ground support infrastructure.	1	2022	4	2023
Manage Tranche 0 constellation operations.	1	2022	4	2023
Begin planning activities for follow-on tranche capabilities.	1	2022	4	2023
<b><i>Space Networking Centers</i></b>				
Modify/reassemble facility space, and upgrade existing utilities and terrestrial networking services for SDA's networking and operations centers.	3	2022	3	2023
Prepare Space Networking Centers and establish SDA ground capability for Tranche 1 network operations.	4	2022	4	2023

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / Space Technology Development and Prototyping				<b>Project (Number/Name)</b> 033 / Transport Layer Architecture and Standards			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
033: Transport Layer Architecture and Standards	0.000	26.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Funding in FY 2022 was transferred to the Transport Project 001.

**A. Mission Description and Budget Item Justification**

The Space Technology Development and Prototyping effort developed and demonstrated a prototype proliferated Low Earth Orbit (pLEO) data transport layer and its sub-constellations to provide the eight capabilities outlined in the Department of Defense (DoD) Space Vision. The Space Development Agency (SDA) will rapidly develop and field the next generation space architecture that will enable the U.S. to deploy space capabilities that out-pace adversarial threats. This architecture is underpinned by common satellite buses, common interfaces between payloads and buses, and common data interfaces and standards. SDA will develop these standards for high power and lower power buses. SDA will develop standard interfaces across these two classes of satellite buses. SDA, in collaboration with other Space stakeholders, will develop communication standards and a ground architecture including user equipment that supports satellites utilizing these standardized products.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Transport Layer Architecture and Standards	26.055	-	-
<b>Description:</b> Developed and demonstrated prototypes that enabled a resilient and unified military data transport layer and sensor capabilities, enabling a pLEO architecture. This effort defined and delivered the architectures and standards necessary to rapidly prototype and field new satellite capabilities in Low Earth Orbit (LEO). For Tranche 0: performed technology development and in-flight demonstrations to test and demonstrate optical intersatellite link technologies; and designed a space-to-air optical connectivity experiment taking advantage of existing MQ-9 pod in advance of on-orbit optical link deployment.			
<b>Accomplishments/Planned Programs Subtotals</b>	26.055	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Partners for these activities included DoD research centers, large defense contractors, and commercial space providers.



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 033 / <i>Transport Layer Architecture and Standards</i>
--	---	---

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Transport Layer Architecture and Standards</b>	
Enable an initial deployment of the space architecture.	██████████
Develop and perform on-orbit demonstration of optical intersatellite links (OISL).	██████████
Link the early builds of the space based data Transport Layer to ground systems via optical communications.	██████████

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Transport Layer Architecture and Standards</b>	
Enable an initial deployment of the space architecture.	██
Develop and perform on-orbit demonstration of optical intersatellite links (OISL).	██
Link the early builds of the space based data Transport Layer to ground systems via optical communications.	██

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 033 / <i>Transport Layer Architecture and Standards</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Transport Layer Architecture and Standards</i></b>				
Enable an initial deployment of the space architecture.	4	2020	2	2023
Develop and perform on-orbit demonstration of optical intersatellite links (OISL).	3	2020	4	2023
Link the early builds of the space based data Transport Layer to ground systems via optical communications.	3	2020	4	2023

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 034 / <i>Space Situational Awareness and Launch</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>034: Space Situational Awareness and Launch</i>	0.000	23.601	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**  
Funding in FY 2022 was transferred to the Integration and Battle Management Project 003.

**A. Mission Description and Budget Item Justification**

The Space Technology Development and Prototyping effort will develop and demonstrate a prototype proliferated Low Earth Orbit (pLEO) data transport layer and its sub-constellations to provide the eight capabilities outlined in the Department of Defense (DoD) Space Vision. Developing and fielding a pLEO space architecture will significantly improve U.S. resilience posture in space. The Space Situational Awareness (SSA) and Launch project will further support this vision of enhanced resilience. Global and near real-time SSA will provide a detailed understanding of the space order of battle and a responsive launch capability needed to enable rapid constitution or replenishment of space capabilities.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Space Situational Awareness and Launch	23.601	-	-
<b>Description:</b> Developed transport layer to provide critical data transfer capabilities, such as dissemination of space situational awareness data. In addition, this effort identified and contracted for launch of small-to-medium size payloads, to demonstrate responsive constitution and replenishment. For Tranche 0: identified launch opportunities for Space Transport Layer demonstration; designed and developed initial pLEO data transport capabilities; improved architecture resilience by developing advanced beyond-line-of-sight communications systems; and developed deep space surveillance plans.			
<b>Accomplishments/Planned Programs Subtotals</b>	23.601	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Partners for these activities included commercial space providers, small businesses and Federally Funded Research and Development Centers.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / Space Technology Development and Prototyping	<b>Project (Number/Name)</b> 034 / Space Situational Awareness and Launch
--	--	--

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Integration / Support Tranche 0	MIPR	NRL : Washington, DC	0.000	2.554	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Launch Tranche 0 (Support)	C/FFP	SpaceX : Hawthorne, CA	0.000	19.259	Dec 2020	0.000		0.000		0.000		0.000	-	-	-
Laser Interconnect and Communications System (LINCS) Rideshare Integration	C/FFP	Perspecta Engineering : Chantilly, VA	0.000	1.788	Feb 2021	0.000		0.000		0.000		0.000	-	-	-
<b>Subtotal</b>			0.000	23.601		0.000		0.000		0.000		0.000	-	-	N/A
<b>Project Cost Totals</b>			0.000	23.601		0.000		0.000		0.000		0.000	-	-	N/A

**Remarks**



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Space Development Agency			<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 034 / <i>Space Situational Awareness and Launch</i>	

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Space Situational Awareness and Launch</b>	
Develop initial Transport Layer capability, ultimately enabling space situational awareness development and dissemination.	█
Extend Transport Layer capabilities with advanced beyond line of sight communications techniques.	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Space Situational Awareness and Launch</b>	
Develop initial Transport Layer capability, ultimately enabling space situational awareness development and dissemination.	████████████████████
Extend Transport Layer capabilities with advanced beyond line of sight communications techniques.	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 034 / <i>Space Situational Awareness and Launch</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Space Situational Awareness and Launch</i></b>				
Develop initial Transport Layer capability, ultimately enabling space situational awareness development and dissemination.	4	2020	2	2022
Extend Transport Layer capabilities with advanced beyond line of sight communications techniques.	3	2021	2	2022

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / Space Technology Development and Prototyping	<b>Project (Number/Name)</b> 039 / Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
039: Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration	0.000	31.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

Funding in FY 2022 was transferred to the Sensing Project 002.

**A. Mission Description and Budget Item Justification**

The proliferated Low Earth Orbit (pLEO) Payload and Ground Integration project enabled a persistent global surveillance capability, enabled by a pLEO data communications transport layer that will provide indications, warnings, targeting, and tracking to support the defeat of advanced missile threats.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> pLEO Missile Warning Ground Integration	31.369	-	-
<b>Description:</b> Developed and demonstrated payload prototypes compatible with a pLEO architecture. This effort focused on developing and demonstrating sensors for beyond-line-of-sight targeting, space-to-space data links, space-to-tactical data links, and advanced missile warning capabilities. On-orbit demonstrations addressed key risk elements present in moving missile tracking to LEO from higher orbits. Ground infrastructure linkage to existing capabilities were designed to support payload integration and data processing. For Tranche 0: developed multi-band WFOV infrared (IR) payload to evaluate IR detection and tracking methods from Low Earth Orbit (LEO); integrated payload with ISS resupply vehicle, launched payload, and conducted background measurements in LEO while berthed to station; and developed MFOV IR experiment to reduce technical risk of hybrid WFOV/MFOV missile tracking architecture.			
<b>Accomplishments/Planned Programs Subtotals</b>	31.369	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Partners for these activities include Department of Defense (DoD) research centers, large defense contractors, and commercial space providers.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / Space Technology Development and Prototyping	<b>Project (Number/Name)</b> 039 / Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration
--	--	--

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Tracking Tranche 0	C/FFP	L3Harris : Melbourne, FL	0.000	10.502	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Tracking Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	19.504	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Prototype Infrared Payload (PIRPL)	SS/CPFF	Northrop Grumman : Huntsville, AL	0.000	1.161	Jun 2021	0.000		0.000		0.000		0.000	-	-	-
Commercial Tranche 0 Optical Intersatellite Links (OISL) Demo	C/FFP	Capella : San Francisco, CA	0.000	0.003	Jun 2021	0.000		0.000		0.000		0.000	-	-	-
Crypto Equipment	C/FFP	Viasat : Carlsbad, CA	0.000	0.199	Sep 2021	0.000		0.000		0.000		0.000	-	-	-
<b>Subtotal</b>			0.000	31.369		0.000		0.000		0.000		0.000	-	-	N/A

<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>		0.000	31.369	0.000	0.000	0.000	-	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 039 / <i>Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration</i>
--	---	---

FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Missile Warning Technology</b>	
Develop and evaluate a multi-band wide field of view experimental IR payload.	██████████
Develop experimental satellite bus and integrate IR payload.	██████████
Develop and conduct medium field of view IR experiment.	██████████
Design and develop Tranche 0 missile tracking satellites informed by tracking experiments.	

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Missile Warning Technology</b>	
Develop and evaluate a multi-band wide field of view experimental IR payload.	████████████████████
Develop experimental satellite bus and integrate IR payload.	██
Develop and conduct medium field of view IR experiment.	██████████
Design and develop Tranche 0 missile tracking satellites informed by tracking experiments.	████████████████████

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 039 / <i>Proliferated Low Earth Orbit (pLEO) Missile Warning Ground Integration</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Missile Warning Technology</i></b>				
Develop and evaluate a multi-band wide field of view experimental IR payload.	3	2020	2	2022
Develop experimental satellite bus and integrate IR payload.	4	2020	4	2023
Develop and conduct medium field of view IR experiment.	3	2020	3	2021
Design and develop Tranche 0 missile tracking satellites informed by tracking experiments.	1	2021	4	2022

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>				<b>Project (Number/Name)</b> 196 / <i>Space Technology Development</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>196: Space Technology Development</i>	0.000	106.928	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Funding in FY 2022 was transferred to the Transport, Sensing, and Integration and Battle Management Project codes.

**A. Mission Description and Budget Item Justification**

The Space Development Agency (SDA) is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. The SDA is developing capabilities to address a wide range of Department space needs as stated in the National Defense Strategy and Department of Defense (DoD) Space Vision, including low-latency tactical communication, beyond-line-of-sight targeting, and advanced missile tracking. SDA will orchestrate the rapid development and fielding of the National Defense Space Architecture (NDSA), a resilient military sensing and data transport capability via a proliferated space architecture in low-earth orbit.

This program element funded the space technology development and prototyping activity to deliver a resilient military sensing and data transport capability via a proliferated space architecture to U.S. joint warfighting forces in two-year tranches, beginning as early as FY 2022. These capabilities included a low-latency mesh network data transport layer; advanced missile tracking layer; global surveillance and surface moving target custody layer; low-latency sensor tasking, command and control, and data dissemination layer; alternate position, navigation, and timing layer; enhanced space situational awareness and deterrence layer; and common ground segment and launch services layer.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Space Technology Development	106.928	-	-
<b>Description:</b> Space technology development and prototyping of a resilient military sensing and data transport capability via a proliferated space architecture in Low Earth Orbit (LEO). For Tranche 0: designed and began development of Transport Layer Tranche 0 capability; designed and began development of wide field-of-view infrared payload with sensitivity sufficient to detect advance missile threats; designed and began development of ground support infrastructure and integration with space constellation to support Tranche 0 mission operations; and designed, developed, and tested hardware-in-the-loop facility to support architecture interoperability testing and validation.			
<b>Accomplishments/Planned Programs Subtotals</b>	106.928	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 196 / <i>Space Technology Development</i>

**C. Other Program Funding Summary (\$ in Millions)**

**Remarks**

**D. Acquisition Strategy**

Partners for these activities included Missile Defense Agency (MDA), Space Systems Command (SSC), DoD Combatant Commands, DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers.



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Space Development Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 196 / <i>Space Technology Development</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Transport Tranche 0	C/FFP	Lockheed Martin : Littleton, CO	0.000	43.390	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Transport Tranche 0	C/FFP	York Space Systems, LLC : Denver, CO	0.000	18.012	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Tracking Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	9.900	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Tracking Tranche 0	C/FFP	L3Harris : Palm Bay, FL	0.000	19.440	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Mission Systems Engineering and Integration (MSE&I)	C/CPFF	Perspecta Engineering Inc : Chantilly, VA	0.000	11.357	Oct 2020	0.000		0.000		0.000		0.000	-	-	-
Launch Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	4.500	Dec 2020	0.000		0.000		0.000		0.000	-	-	-
Crypto Purchase	MIPR	General Services Administration : Washington, DC	0.000	0.329	Sep 2021	0.000		0.000		0.000		0.000	-	-	-
<b>Subtotal</b>			0.000	106.928		0.000		0.000		0.000		0.000	-	-	N/A

	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	0.000	106.928	0.000	0.000	0.000	0.000	-	-	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 196 / <i>Space Technology Development</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Space Technology Development</i></b>	
Develop Tranche 0 data transport capabilities.	
Develop hardware in the loop test facility supporting Tranche 0 capability development.	
Develop and integrate Tranche 0 ground support infrastructure.	

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	<b>Project (Number/Name)</b> 196 / <i>Space Technology Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Space Technology Development</i></b>				
Develop Tranche 0 data transport capabilities.	1	2021	4	2022
Develop hardware in the loop test facility supporting Tranche 0 capability development.	1	2021	4	2022
Develop and integrate Tranche 0 ground support infrastructure.	1	2021	4	2022

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Space Development Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA I <i>Small Business Innovation Research (SBIR)</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	9.249	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
SBIR-: <i>Small Business Innovation Research</i>	0.000	8.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
STTR-: <i>Small Business Technology Transfer</i>	0.000	1.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

New Requirement (Y/N): Yes

This is a new PE created to manage and execute the Space Development Agency (SDA)'s Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funding.

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Innovation Research (SBIR) program are to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization and lethality of the Joint Force. This program supports high priority projects within the DoD Components, their missions, and the Warfighter. The goals of the Small Business Technology Transfer (STTR) program are to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through DoD funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, the DoD supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the DoD Components, their missions, and the Warfighter.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Space Development Agency	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	9.249	0.000	0.000	-	0.000
Total Adjustments	9.249	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	9.249	-			

**Change Summary Explanation**

PE 0605502SDA was created in FY 2021 to house SDA's Congressionally-mandated SBIR/STTR funding to be consistent with other SBIR/STTR PE's across the Department. Funds were transferred from PEs 1206310SDA and 1206410SDA. SBIR/STTR funds were previously executed out of PE 1206310SDA in FY 2020.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>			<b>Project (Number/Name)</b> SBIR- / <i>Small Business Innovation Research</i>				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SBIR-: <i>Small Business Innovation Research</i>	0.000	8.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

In accordance with the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021, effective on October 1, 2022, SDA will be an element of the U.S. Space Force (USSF), and report to Assistant Secretary of the Air Force (ASAF) for Space Acquisition and Integration (ASAF/SA&I) with respect to acquisition decisions and directly to the Chief of Space Operations with respect to requirements decisions, personnel decisions, and any other matter not covered by ASAF/SA&I. This program and funding continue in FY 2023 and out under Appropriation 3620, Research, Development, Test & Evaluation, Space Force.

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Innovation Research (SBIR) program are to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization and lethality of the Joint Force. This program supports high priority projects within the DoD Components, their missions, and the Warfighter.

Numerous, capable small businesses are driving down the cost of accessing and utilizing space, which is accelerating the commoditization of space hardware and software. The SDA highly leverages the SBIR program to invest in the research, development, and demonstration of innovative technologies from these small businesses that support the modernization of our national defense space capabilities. These SBIR opportunities have the potential to enhance future tranches and inform the spiral development projects that demonstrate enhanced warfighter capability via proliferated a low Earth orbit architecture. This program has sought investments in the following space-based technology areas : laser communications; novel antenna steering methods; data networking; automated encryption; on-orbit data fusion algorithms; reduced size, weight, and power multi-modal sensors; higher accuracy, low latency information processing; and space-related modeling and simulation testbeds.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Small Business Innovation Research	8.109	0.000	-
<b>Description:</b> This project funds small business research and development activities providing analysis products and enabling technologies and capabilities for the National Defense Space Architecture (NDSA).			
In FY 2021, SDA issued the following Topic solicitations: Free-Space Optical Communication (FSOC) Technology for Optical Intersatellite Links (OISLs); L-Band Multiband/Interleaved Electronically Scanned Array (ESA) Antenna; Advanced Space Mesh			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>	<b>Project (Number/Name)</b> SBIR- / <i>Small Business Innovation Research</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>Networking; Mesh Network NSA Certifiable Cryptographic Solution; Target Recognition and Acquisition in Complex Environments (TRACE); Compact Passive Polarimetric Microwave Radiometer and Sounder (CP2MRS); and, Commercial Synthetic Aperture Radar and Scatterometry (COSAS).</p> <p>In FY 2021, SDA funded the following efforts:</p> <ul style="list-style-type: none"> <li>- FSOC for OISLs (\$4.995 million): Compact Multi-Link OISL Terminal, V'Ger-T1 10 Gbps OISL Terminal, MOCA One-to-Many OISL</li> <li>- Mesh Network NSA Certifiable Cryptographic Solution (\$1.700 million): High Integrity, Performant, Efficient Realization of a Spaceborne Cryptographic Engine</li> <li>- Prototype On-Orbit Experimental Testbed (POET) (\$1.391 million)</li> </ul> <p>The remaining \$0.023 million will be allocated to an additional project associated to FSOC for OISLs.</p> <p><b>FY 2022 Plans:</b></p> <p>The following efforts will be funded with FY 2022 funds:</p> <ul style="list-style-type: none"> <li>- FSOC for OISLs (estimated funding, \$1.727 million): Addressing development of a FSOC solution that demonstrates a next-generation low size, weight, power, and cost (SWAP-C) OISL terminal or enabling technology that will provide advancement in one or more of the following interest areas:               <ol style="list-style-type: none"> <li>1. Reduction of the SWAP-C per bit</li> <li>2. Design for manufacturing considerations to support high rate production and assembly, integration, and test processes</li> <li>3. Demonstration of a path to 100 Gbps for space-to-space FSOC</li> <li>4. Development of low-cost, mobile or fixed optical ground terminals (OGTs)</li> <li>5. Demonstration of enhanced space-to-ground and space-to-air FSOC links</li> <li>6. Development of compact FSOC systems capable of supporting coherent and non-coherent optical links.</li> <li>7. Demonstration of one-to-many optical terminal links</li> <li>8. Demonstration of enhanced position, navigation, and timing technology</li> </ol> </li> <li>- L-Ba.5nd Multiband/Interleaved ESA Antenna (estimated funding, \$0.500 million): Addressing an L-band ESA antenna for use on the Evolved Expendable Launch Vehicle (EELV) Secondary Payload Adapter (ESPA) class space vehicles (SV)</li> <li>- Advanced Space Mesh Networking (estimated funding, \$1.750 million): Addressing preliminary system design for a router/switch implementation and networking technology capable of forwarding packets/frames in excess of 50Gbps and targeted at current / next-generation space-qualified hardware</li> <li>- TRACE (estimated funding, \$1.250 million): Addressing advancement of the capability and utility of algorithms for low-latency recognition and acquisition of tactically relevant targets from overhead persistent infrared (OPIR) systems</li> </ul>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>	<b>Project (Number/Name)</b> SBIR- / <i>Small Business Innovation Research</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>- CP2MRS (estimated funding, \$0.250 million): Addressing development of a preliminary system design for a next-generation compact passive polarimetric microwave radiometer and sounder capable of performing multiple SBEM functions from low earth orbit (LEO)</p> <p>The remaining \$20.323 million will be allocated to additional projects that have yet to be selected in Integrated Architecture Technology and other space related topics. Where possible and of value, SDA will partner with other SBIR/STTR funding agencies such as DARPA, AFRL, NRL, ARL, etc. to take advantage of ongoing and/or emerging efforts with broad applicability to accelerate completion and delivery of capability to the warfighter via partnership funding.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> This program and funding continue in FY 2023 forward under Appropriation 3620, Research, Development, Test &amp; Evaluation, Space Force.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	8.109	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Partners for these activities include small businesses.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>				<b>Project (Number/Name)</b> STTR- / <i>Small Business Technology Transfer</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
STTR-: <i>Small Business Technology Transfer</i>	0.000	1.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

In accordance with the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021, effective on October 1, 2022, SDA will be an element of the U.S. Space Force (USSF), and report to Assistant Secretary of the Air Force (ASAF) for Space Acquisition and Integration (ASAF/SA&I) with respect to acquisition decisions and directly to the Chief of Space Operations with respect to requirements decisions, personnel decisions, and any other matter not covered by ASAF/SA&I. This program and funding continue in FY 2023 and out under Appropriation 3620, Research, Development, Test & Evaluation, Space Force.

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Technology Transfer (STTR) program are to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through DoD funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, DoD supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the DoD Components, their missions, and the Warfighter.

SDA leverages STTR funds to support the collaborative development of defense space technologies by small businesses partnering with U.S. research institutions. By supporting such partnerships between emerging technology development companies and leading research organizations, SDA will help to foster the growth of a stronger, more integrated space industrial base while addressing our nation's greatest technical challenges in space. These STTR opportunities have the potential to enhance future tranches and inform the overall architecture of spiral development projects to demonstrate warfighter capability via proliferated low Earth orbit.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Small Business Technology Transfer	1.140	0.000	-
<p><b>Description:</b> This project supports collaborative research and development activities by small businesses and research institutions providing enabling technologies and capabilities for the National Defense Space Architecture (NDSA). In FY 2021, SDA issued the following Topic solicitations: Advanced Space Mesh Networking, Mesh Network NSA Certifiable Cryptographic Solution; Target Recognition and Acquisition in Complex Environments (TRACE); Compact Passive Polarimetric Microwave Radiometer and Sounder (CP2MRS); and, Commercial Synthetic Aperture Radar and Scatterometry (COSAS). In FY 2021, SDA funded the following efforts:</p> <ul style="list-style-type: none"> <li>- Mesh Network NSA Certifiable Cryptographic Solution (\$0.322 million): Secure Communications Architecture Low Earth, Mesh Network NSA Certifiable Cryptographic Solution</li> <li>- TRACE (\$0.250 million): Target Recognition and Acquisition in Complex Environments</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Space Development Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502SDA / <i>Small Business Innovation Research (SBIR)</i>	<b>Project (Number/Name)</b> STTR- / <i>Small Business Technology Transfer</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The remaining \$0.568 million will be allocated to additional projects that have yet to be selected from the topics listed above and other space related topics.			
<b><i>FY 2022 Plans:</i></b> In FY 2022, SDA plans to fund projects in the areas of advanced space mesh networking, mesh network NSA certifiable cryptographic solutions, target recognition and acquisition in complex environments, compact passive polarimetric microwave radiometer and sounder, commercial synthetic aperture radar and scatterometry, and other space related topics.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> This program and funding continue in FY 2023 forward under Appropriation 3620, Research, Development, Test & Evaluation, Space Force.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.140	0.000	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Partners for these activities include small businesses teamed with a non-profit research institution.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**The Joint Staff**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

The Joint Staff • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 887**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 899**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 901**  
**Exhibit R-2s..... Volume 5 - 903**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022			
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	115,034	109,061				
Total Research, Development, Test & Evaluation	115,034	109,061				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

<u>Appropriation</u>	<u>FY 2022 Total Supplemental Enactment</u>	<u>FY 2022 Total Enactment</u>	<u>FY 2023 Request</u>
Research, Development, Test & Eval, DW		109,061	148,613
Total Research, Development, Test & Evaluation		109,061	148,613

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
<u>Summary Recap of Budget Activities</u>						
Advanced Component Development & Prototypes	18,115	17,439				
Management Support	93,880	91,622				
Operational Systems Development	3,039					
Total Research, Development, Test & Evaluation	115,034	109,061				
<u>Summary Recap of FYDP Programs</u>						
General Purpose Forces	6,097	977				
Intelligence and Communications	545					
Research and Development	79,100	78,554				
Training Medical and Other	29,292	29,530				
Total Research, Development, Test & Evaluation	115,034	109,061				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Component Development & Prototypes		17,439	40,699
Management Support		91,622	107,914
Operational Systems Development			
Total Research, Development, Test & Evaluation		109,061	148,613
Summary Recap of FYDP Programs -----			
General Purpose Forces		977	4,332
Intelligence and Communications			
Research and Development		78,554	106,429
Training Medical and Other		29,530	37,852
Total Research, Development, Test & Evaluation		109,061	148,613

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Advanced Component Development & Prototypes	18,115	17,439				
Management Support	93,880	91,622				
Operational Systems Development	3,039					
Total Research, Development, Test & Evaluation	115,034	109,061				
Summary Recap of FYDP Programs -----						
General Purpose Forces	6,097	977				
Intelligence and Communications	545					
Research and Development	79,100	78,554				
Training Medical and Other	29,292	29,530				
Total Research, Development, Test & Evaluation	115,034	109,061				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Advanced Component Development & Prototypes		17,439	40,699
Management Support		91,622	107,914
Operational Systems Development			
Total Research, Development, Test & Evaluation		109,061	148,613
Summary Recap of FYDP Programs -----			
General Purpose Forces		977	4,332
Intelligence and Communications			
Research and Development		78,554	106,429
Training Medical and Other		29,530	37,852
Total Research, Development, Test & Evaluation		109,061	148,613

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022			
			Division B P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
The Joint Staff	115,034	109,061				
Total Research, Development, Test & Evaluation	115,034	109,061				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
The Joint Staff		109,061	148,613
Total Research, Development, Test & Evaluation		109,061	148,613

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c
109	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	18,115	17,439					U
		Advanced Component Development & Prototypes		18,115	17,439					
143	0603829J	Joint Capability Experimentation	06	10,730	8,444					U
150	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	50,255	52,671					U
182	0204571J	Joint Staff Analytical Support	06	3,058	977					U
187	0303166J	Support to Information Operations (IO) Capabilities	06	545						U
192	0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06	29,292	29,530					U
		Management Support		93,880	91,622					
204	0208043J	Planning and Decision Aid System (PDAS)	07	3,039						U
		Operational Systems Development		3,039						
Total Research, Development, Test & Eval, DW				115,034	109,061					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c
109	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		17,439	40,699	U
		Advanced Component Development & Prototypes			17,439	40,699	
143	0603829J	Joint Capability Experimentation	06		8,444	12,452	U
150	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06		52,671	53,278	U
182	0204571J	Joint Staff Analytical Support	06		977	4,332	U
187	0303166J	Support to Information Operations (IO) Capabilities	06				U
192	0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06		29,530	37,852	U
		Management Support			91,622	107,914	
204	0208043J	Planning and Decision Aid System (PDAS)	07				U
		Operational Systems Development					
Total Research, Development, Test & Eval, DW					109,061	148,613	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

UNCLASSIFIED

The Joint Staff  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B Division C P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****	S e c -
109	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	18,115	17,439					U
		Advanced Component Development & Prototypes		18,115	17,439					
143	0603829J	Joint Capability Experimentation	06	10,730	8,444					U
150	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	50,255	52,671					U
182	0204571J	Joint Staff Analytical Support	06	3,058	977					U
187	0303166J	Support to Information Operations (IO) Capabilities	06	545						U
192	0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06	29,292	29,530					U
		Management Support		93,880	91,622					
204	0208043J	Planning and Decision Aid System (PDAS)	07	3,039						U
		Operational Systems Development		3,039						
Total The Joint Staff				115,034	109,061					

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

The Joint Staff  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c
109	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		17,439	40,699	U
Advanced Component Development & Prototypes					17,439	40,699	
143	0603829J	Joint Capability Experimentation	06		8,444	12,452	U
150	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06		52,671	53,278	U
182	0204571J	Joint Staff Analytical Support	06		977	4,332	U
187	0303166J	Support to Information Operations (IO) Capabilities	06				U
192	0804768J	COCOM Exercise Engagement and Training Transformation (CE2T2) - non-MHA	06		29,530	37,852	U
Management Support					91,622	107,914	
204	0208043J	Planning and Decision Aid System (PDAS)	07				U
Operational Systems Development							
Total The Joint Staff					109,061	148,613	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 5, 2022 at 09:07:48

**UNCLASSIFIED**

The Joint Staff • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
109	04	0604826J	Joint C5 Capability Development, Integration, and Interoperability Assessments.....	Volume 5 - 903

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
143	06	0603829J	Joint Capability Experimentation.....	Volume 5 - 929
150	06	0605126J	Joint Integrated Air & Missile Defense Organization (JIAMDO).....	Volume 5 - 933
182	06	0204571J	Joint Staff Analytical Support.....	Volume 5 - 943
192	06	0804768J	Joint Training, Exercise and Evaluation Program (JTEEP).....	Volume 5 - 947

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

The Joint Staff • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Joint C5 Capability Development, Integration, and Interoperability Assessments	0604826J	109	04.....	Volume 5 - 903
Joint Capability Experimentation	0603829J	143	06.....	Volume 5 - 929
Joint Integrated Air & Missile Defense Organization (JIAMDO)	0605126J	150	06.....	Volume 5 - 933
Joint Staff Analytical Support	0204571J	182	06.....	Volume 5 - 943
Joint Training, Exercise and Evaluation Program (JTEEP)	0804768J	192	06.....	Volume 5 - 947

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 The Joint Staff** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604826J I <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	111.465	18.115	17.439	40.699	-	40.699	29.457	30.430	30.139	30.817	-	-
001: <i>C5 Assessments and Analyses</i>	56.903	7.973	9.208	9.780	-	9.780	4.454	4.441	4.287	3.619	-	-
002: <i>C5 Capability Development</i>	31.837	5.119	4.750	13.951	-	13.951	9.584	9.576	9.498	9.610	-	-
003: <i>Joint Fires C2 Interoperability</i>	22.725	5.023	3.481	6.968	-	6.968	5.419	5.413	5.354	5.588	-	-
004: <i>Rapid Defense Experimentation Reserve</i>	-	-	-	10.000	-	10.000	10.000	11.000	11.000	12.000	-	-

**A. Mission Description and Budget Item Justification**

Lead command, control, communications, computers, and cyber (C5) assessments, analyses, capability development, and joint fires command and control (C2) interoperability efforts required to achieve an effective, integrated, and interoperable joint force. Efforts include C5 requirements determination, C5 architectures development and integration, C5 data standardization, joint fires C2 interoperability, and C5 integration and interoperability assessments. The Joint Staff has recently been designated the DoD's lead for the integration of Joint All-Domain Command & Control (JADC2) capabilities and development efforts across the Department. The Joint C5 program is the Joint Staff focal point for this responsibility, and DoD's only program directly attributable to JADC2. The Joint C5 R&D projects collectively provide the analytical basis and action arm of the JADC2 Cross Functional Teams charged with execution of the DoD JADC2 Strategy and Implementation Plan.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	18.115	17.439	0.000	-	0.000
Current President's Budget	18.115	17.439	40.699	-	40.699
Total Adjustments	0.000	0.000	40.699	-	40.699
• Congressional General Reductions	0.000	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	40.699	-	40.699

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 The Joint Staff Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604826J <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>
---	---

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. FY 2023 includes one-year funding of 11.001M to accelerate Joint All-Domain C2 (JADC2) cross-functional team capabilities. FY 2023 also includes 10M in Rapid Defense Experimentation Reserve (RDER) funds.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
001: <i>C5 Assessments and Analyses</i>	56.903	7.973	9.208	9.780	-	9.780	4.454	4.441	4.287	3.619	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

As the new DoD lead for the integration of Joint All-Domain Command and Control (JADC2) capabilities and development efforts, conduct analysis and assessment activities to inform and enhance joint warfighter capabilities in support of national security requirements. Provide timely, facts-based findings and recommendations to DoD decision-making processes that validate operational requirements and fund interoperable capabilities. Conduct interoperability assessments and analyses that evaluate capability and interoperability of fielded and emerging command, control, communications, computers, and cyber (C5), and systems in response to operational issues and shortfalls. Conduct integration assessment efforts focused on emerging capabilities in wireless devices and security, operational and tactical command and control, networking, satellite communications, advanced secure digital datalinks, and allied/coalition data exchanges.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> C5 Assessments and Analyses	7.973	9.208	9.780
<p><b>Description:</b> Support the Chairman's statutory requirement to advise the Secretary of Defense on development of joint command, control, communications and cyber capability, including integration and interoperability of such capability through requirements, integrated architectures, data standards and assessments. Also supports the Chairman's focus area of improving joint warfighting capability and the Secretary's line of effort to strengthen alliances and attract new partners. Interoperability is assessed and integrated solutions are developed to improve C5 system performance by providing recommendations based on operational architectures and evolving standards and data products. Combatant Commands, Services, Agencies and Allies/Coalition partners are provided a laboratory, exercise and assessment venue for the warfighter and capability developer to identify and solve interoperability, integration, and cyber issues.</p> <p><b>FY 2022 Plans:</b> Support National Military Strategy and Globally Integrated Operations (GIO) by conducting quantifiable analysis, assessment, and integration activities that inform and enhance Joint warfighter capabilities and interoperability. Activities utilize actual and replicated operational environments and networks to conduct capability development, support joint and coalition experimentation, and support acquisition and systems employment decisions. Continue to address warfighter needs across all domains by conducting activities in rapidly reconfigurable C5ISR laboratories replicating joint and coalition system of systems operational environments as well as in operational venues such as exercises. Employ a deployable assessment capability supporting</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>the collection and analysis of decision quality data for command and control operations from the operational to lowest tactical echelons of command, in field conditions, in real time to provide immediate feedback on the data being collected. Projects include:</p> <p><b>Bold Quest (BQ) 2022 Coalition Interoperability Demonstrations</b> – Support the design, plan, and execution of the BQ events which address close air support, Mission Partner Environment (MPE) / Federated Mission Networking (FMN) development/assessments, counter Unmanned Aircraft Systems (UAS), Identification, Friend or Foe (IFF) testing, and cyber effects on operations for U.S. forces and coalition partners. Support includes accredited exercise networks, associated Command and Control (C2) systems, and data collection and analysis capabilities.</p> <p><b>Cyber Guard (CG)/Cyber Flag (CF)</b> - Provide assessment and technical support to cyber exercises to include C2 information systems, while conducting assessments of cyber effects on systems integrated into the DoD Information Network.</p> <p><b>Counter-UAS (CUAS)</b> – Data collection and analysis during Research, Development, Test, and Evaluation (RDT&amp;E) test events as well as in support of urgent operational needs in active operational theaters. Analysis covers all aspects of CUAS defense, including lethal engagements.</p> <p><b>Joint Tactical Integration</b> - Integrate, refine, and accelerate the migration of Special Operating Forces (SOF) battle-proven capabilities to rapidly improve the Joint warfighting capabilities and lethality of general purpose forces in accordance with governing instructions. Capabilities include integrated secure radio networks, tactical data links, tactical cellular, enroute satellite communications, enhanced situational awareness, fratricide prevention, and a more efficient kill-chain.</p> <p><b>Coalition Interoperability and Assurance Validation (CIAV)</b> - Assess US and coalition systems support in-theater operations by ensuring C5 capabilities adequacy before current operational employment in the Afghan and Iraq areas of operations. Conduct CIAV projects in the INDOPACOM area of responsibility.</p> <p><b>Joint Network Integration Environment</b> – Integrate advanced C5 technologies to improve the capabilities and resiliency of US Force Korea’s warfighting networks. Improve information sharing between U.S., Republic of Korea, and planned mission partner forces.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Joint All-Domain Command and Control (JADC2) – Provide the joint hub for an integrated wide-area experimental network and conduct supporting interoperability assessments and integration activities. Contribute to wargames, exercises and experiments that explore current and future warfighting C2 concepts with coalition partners including Mission Partner Environments.</p> <p><b>FY 2023 Plans:</b> Support National Military Strategy and Globally Integrated Operations (GIO) by conducting quantifiable analysis, assessment, and integration activities that inform and enhance Joint warfighter capabilities and interoperability. Activities utilize actual and replicated operational environments and networks to conduct capability development, support joint and coalition experimentation, and support acquisition and systems employment decisions. Continue to address warfighter needs across all domains by conducting activities in rapidly reconfigurable Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) laboratories replicating joint and coalition system of systems operational environments as well as in operational venues such as exercises. Employ a deployable assessment capability supporting the collection and analysis of decision quality data for command and control operations from the operational to lowest tactical echelons of command, in field conditions, in real time to provide immediate feedback on the data being collected. Projects include:</p> <p><b>Bold Quest (BQ) Coalition Interoperability Demonstrations</b> – Support the design, plan, and execution of the BQ events which address close air support, Mission Partner Environment (MPE) / Federated Mission Networking (FMN) development/assessments, counter Unmanned Aircraft Systems (UAS), Identification, Friend or Foe (IFF) testing, and cyber effects on operations for U.S. forces and coalition partners. Support includes accredited exercise networks, associated Command and Control (C2) systems, and data collection and analysis capabilities.</p> <p><b>Cyber Guard (CG)/Cyber Flag (CF)</b> - Provide assessment and technical support to cyber exercises to include C2 information systems, while conducting assessments of cyber effects on systems integrated into the DoD Information Network.</p> <p><b>Counter-UAS (CUAS)</b> – Data collection and analysis during RTD&amp;E test events as well as in support of urgent operational needs in active operational theaters. Analysis covers all aspects of CUAS defense, including lethal engagements.</p> <p><b>Joint Tactical Integration</b> - Integrate, refine, and accelerate the migration of Special Operating Forces (SOF) battle-proven capabilities to rapidly improve the Joint warfighting capabilities and lethality of general purpose forces in accordance with governing instructions. Capabilities include integrated secure radio networks, tactical data links, tactical cellular, enroute satellite communications, enhanced situational awareness, fratricide prevention, and a more efficient kill-chain.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Coalition Interoperability and Assurance Validation (CIAV) - Assess US and coalition systems support in-theater operations by ensuring C5 capabilities adequacy before current operational employment in the Afghan and Iraq areas of operations. Conduct CIAV projects in the INDOPACOM area of responsibility.			
Joint Network Integration Environment – Integrate advanced C5 technologies to improve the capabilities and resiliency of US Force Korea’s warfighting networks. Improve information sharing between U.S., Republic of Korea, and planned mission partner forces.			
Joint All-Domain Command and Control – Provide the joint hub for an integrated wide-area experimental network and conduct supporting interoperability assessments and integration activities. Contribute to wargames, exercises and experiments that explore current and future warfighting C2 concepts with coalition partners including Mission Partner Environments.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Adjustments to travel funds and non-pay, non-fuel inflation adjustment, and other minor adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.973	9.208	9.780

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>
<b>D. Acquisition Strategy</b> Biannual review of C4/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort, Acquisition Strategy and current Execution.  The award of a Multi Award Contract (MAC) seeks efficiencies in the performance of requirements for C4/Cyber and Information services, and promotes contractor teaming to provide critical technical and management support. The MAC approach also seeks to reduce the costs of current contract support through the elimination of multiple fees for service contracts, and through the competitive award of contract services.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 The Joint Staff											<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments					<b>Project (Number/Name)</b> 001 / C5 Assessments and Analyses				

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Contract Management and Engineering Technical Services	C/CPFF	Various : Norfolk, Suffolk, Eglin	56.903	7.973	Oct 2020	9.208		9.780		-		9.780	Continuing	Continuing	-
<b>Subtotal</b>			56.903	7.973		9.208		9.780		-		9.780	Continuing	Continuing	N/A
			<b>Prior Years</b>	<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			56.903	7.973		9.208		9.780		-		9.780	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Joint C5I</b>	
C5 Assessments and Analyses	



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Joint C5I</b>				
C5 Assessments and Analyses	4	2022	3	2024

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 002 / C5 Capability Development
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
002: C5 Capability Development	31.837	5.119	4.750	13.951	-	13.951	9.584	9.576	9.498	9.610	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

Command, Control, Computers, Communications, Cyber (C5) capability development functions as the DoD requirements lead for the joint command and control family of programs, Joint cyber, and requirements lead for mission partner environment (MPE). The program also develops joint context, containers, components, and code (C4) architectures, joint common systems functions, joint mission threads, leads analysis and reviews architectures and standards in joint capability development systems. C5 development enables warfighter access to authoritative data sources and improves data interoperability by establishing common command and control (C2) data and service standards.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> C5 Capability Development	5.119	4.750	13.951
<b>Description:</b> Lead C2 capability development and integration in order to achieve an interdependent joint force. Supports Chairman's focus to improve joint warfighter capability and enhance global integration. This will be accomplished through four focus areas: capability development, C4 architectures, data and services, and interoperability and integration.			
<b>FY 2022 Plans:</b> Capability Development - Analyze/coordinate out-year C2 integrated priority lists, capability gaps, and Joint C2 operational priorities. Create C2 requirements in concert with DoD's Digital Modernization Strategy. Specifically, address Global Command and Control System - Joint (GCCS-J) replacement by Global Command and Control System - Joint Enterprise (GCCS-JE) to include robust functionality during disconnected operations. Pursue joint capability development/integration for Joint All Domain C2 (JADC2), Command and Control of the Information Environment (C2IE), Joint Force Capability Catalog (JFCC)/Global Laydown Server (GLS)/ Project ORION, Joint Planning Services (JPS) Personnel Recovery and Missile Warning in accordance with the Secretary's direction.			
C5 Architectures - Provide architecture, mission thread, and mission-based analysis development and analysis products as required to support the Chairman's directed focus areas and Chief Information Officer (CIO) lines of operations. Conduct analysis and validate warfighting requirements architectures and engineering designs for continued implementation of the Joint Information Environment (JIE). Update the Joint Common Service/System Function List and Warfighter Mission Area (WMA) Architecture Development Standard to improve WMA architecture integration and interoperability. Continue to improve and expand the quality and amount of architecture information and data available for analysis and reuse on the WMA architecture portal. Conduct			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>analyses and develop architectures and metrics for Joint Capabilities Integration and Development System (JCIDS) C5 capability requirement documents.</p> <p>Data and Services – Develop, promote, and integrate common enterprise data and services requirements, standards, technical specifications, and policy to improve Joint All Domain Command and Control (C2) interoperability and information sharing with Joint, interagency and coalition mission partners. Perform and lead proof of concept activities, including cloud-based data lakes that enables Artificial Intelligence and cybersecurity standardization of the National Information Exchange Model (NIEM) and the North Atlantic Treaty Organization (NATO) Core Data Framework (NCDF) with selected Joint All Domain C2 communities of interest, including robotics and autonomous systems. Conduct one Joint All Domain C2 complex proof of concept demonstration with NATO with interested Services, Agencies and coalition partners to improve warfighter interoperability and enhance operational effectiveness. Continue to lead, align and standardize emerging Joint All Domain C2 tactical data link, symbology (including cyber symbology) and messaging standards to support common enterprise-level information sharing. Continue to support standardization of common warfighter Identity Access Management, robust cyber security, standardized interfaces and common data tagging to promote Joint All Domain C2 interoperability.</p> <p>Coalition Interoperability - International lead for the Coalition Interoperability Assurance and Validation (CIAV) providing interoperability mission-based assessments across the geographic Combatant Commands. Continue to lead mission partner environment (MPE) implementation and support coalition cyber priorities across DoD by leading the MPE cyber security efforts and supporting the federated mission networking (FMN) cyber security working group. Continue to shape North Atlantic Treaty Organization (NATO) federated mission networking (FMN) implementation to ensure it remains aligned with MPE, including related capability development. Provide support to the Combined Communications-Electronics Board to ensure interoperability among the Five Eyes nations (Canada, New Zealand, Australia, UK and U.S.). Lead the NATO-sponsored Coalition Warrior Interoperability Exploration, Experimentation, Examination, Exercises (CWIX) FMN Focus Area to ensure standardized, effective development of Joining, Membership, and Exit Instructions.</p> <p><b>FY 2023 Plans:</b> Capability Development - Analyze/coordinate out-year Command and Control (C2) integrated priority lists, capability gaps, and Joint C2 operational priorities. Create C2 requirements in concert with DoD's Digital Modernization Strategy. Specifically, address Global Command and Control System - Joint (GCCS-J) replacement by Global Command and Control System - Joint Enterprise (GCCS-JE) to include robust functionality during disconnected operations. Pursue joint capability development/integration for Joint All Domain C2 (JADC2), Command and Control of the Information Environment (C2IE), Joint Force Capability Catalog (JFCC)/Global Laydown Server (GLS)/ Project ORION, Joint Planning Services (JPS) Personnel Recovery and Missile Warning in accordance with the Secretary's direction.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p>C5 Architectures - Provide architecture, mission thread, and mission-based analysis development and analysis products as required to support the Chairman's directed focus areas and Chief Information Officer (CIO) lines of operations. Conduct analysis and validate warfighting requirements architectures and engineering designs for continued implementation of the Joint Information Environment (JIE). Update the Joint Common Service/System Function List and Warfighter Mission Area (WMA) Architecture Development Standard to improve WMA architecture integration and interoperability. Continue to improve and expand the quality and amount of architecture information and data available for analysis and reuse on the WMA architecture portal. Conduct analyses and develop architectures and metrics for Joint Capabilities Integration and Development System (JCIDS) C5 capability requirement documents.</p> <p>Data and Services – Develop, promote, and integrate common enterprise data and services requirements, standards, technical specifications, and policy to improve Joint All Domain C2 interoperability and information sharing with Joint, interagency and coalition mission partners. Perform and lead proof of concept activities, including cloud-based data lakes that enables Artificial Intelligence and cybersecurity standardization of the National Information Exchange Model (NIEM) and the North Atlantic Treaty Organization (NATO) Core Data Framework (NCDF) with selected Joint All Domain C2 communities of interest, including robotics and autonomous systems. Conduct one Joint All Domain C2 complex proof of concept demonstration with NATO with interested Services, Agencies and coalition partners to improve warfighter interoperability and enhance operational effectiveness. Continue to lead, align and standardize emerging Joint All Domain C2 tactical data link, symbology (including cyber symbology) and messaging standards to support common enterprise-level information sharing. Continue to support standardization of common warfighter Identity Access Management, robust cyber security, standardized interfaces and common data tagging to promote Joint All Domain C2 interoperability.</p> <p>Coalition Interoperability - International lead for the Coalition Interoperability Assurance and Validation (CIAV) providing interoperability mission-based assessments across the geographic Combatant Commands. Continue to lead mission partner environment (MPE) implementation and support coalition cyber priorities across DoD by leading the MPE cyber security efforts and supporting the federated mission networking (FMN) cyber security working group. Continue to shape North Atlantic Treaty Organization (NATO) federated mission networking (FMN) implementation to ensure it remains aligned with MPE, including related capability development. Provide support to the Combined Communications-Electronics Board to ensure interoperability among the Five Eyes nations (Canada, New Zealand, Australia, UK and U.S.). Lead the NATO-sponsored Coalition Warrior Interoperability Exploration, Experimentation, Examination, Exercises (CWIX) FMN Focus Area to ensure standardized, effective development of Joining, Membership, and Exit Instructions.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Compliance with defense wide economic adjustments, non-pay, non fuel inflation, and minor cost adjustment.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.119	4.750	13.951

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Biannual review of Command, Control, Communications, Computers (C4)/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort, and Acquisition Strategy.

The award of a Multi Award Contract (MAC) seeks efficiencies in the performance of requirements for C4/Cyber and Information services, and promotes contractor teaming to provide critical technical and management support. The MAC approach also seeks to reduce the costs of current contract support through the elimination of multiple fees for service contracts, and through the competitive award of contract services.

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 The Joint Staff</b>											<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments				<b>Project (Number/Name)</b> 002 / C5 Capability Development					

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Contract Management and Engineering Technical Services	C/CPFF	Various : Norfolk, Suffolk	31.837	5.119	Oct 2020	4.750		13.951		-		13.951	Continuing	Continuing	-
<b>Subtotal</b>			31.837	5.119		4.750		13.951		-		13.951	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			31.837	5.119		4.750		13.951		-		13.951	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 The Joint Staff</b>		<b>Date: April 2022</b>
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>C5 Capability Development</b>																												
C5 Capability Development																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>C5 Capability Development</b>				
C5 Capability Development	4	2022	3	2024



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 003 / Joint Fires C2 Interoperability
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
003: Joint Fires C2 Interoperability	22.725	5.023	3.481	6.968	-	6.968	5.419	5.413	5.354	5.588	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

As the DoD lead for the integration of Joint All-Domain Command & Control (JADC2) capabilities and development efforts, lead interoperability efforts across DoD and partner nations at the operational and tactical level for mission partner operations, fire support, combat identification (CID), and friendly force tracking (FFT) capabilities. Conduct joint fire support, joint close air support and CID-FFT action plans to fulfill CJCS-directed, General Officer/Flag Officer (GOFO) level responsibilities. Conduct Joint Fire Support Executive Steering Committee (JFS ESC) standardization team accreditation visits to U.S. and partner nation schoolhouses to ensure memorandum of agreement signatories are accomplishing schoolhouse training in compliance with the memoranda.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Joint Fires C2 Interoperability	5.023	3.481	6.968
<p><b>Description:</b> These efforts directly support Chairman, Joint Chiefs of Staff (CJCS) guidance to increase interoperability with allies and partners, to more effectively counter trans-regional threats. Supports Chairman's focus area of improving joint warfighting capability and the Secretary's line of effort to strengthen alliances and attract new partners. Execute Joint Staff-sponsored Bold Quest systems-of-systems interoperability assessment, including integration of cyber capabilities with command and control of conventional and Special Operations Force missions from a multinational perspective at the tactical level. Lead the Joint Fire Support Executive Steering Committee (JFS ESC), composed of Flag/General Officer representatives and supporting staffs from the U.S. Services, Special Operations Command and 21 partner nations. Those nations include NATO nations, Australia, Republic of Korea and key Gulf State allies. Also lead the Combat Identification – Friendly Force Tracking Executive Steering Committee (CID-FFT ESC), focused on more effective and efficient combat operations and reduced potential for friendly fire incidents.</p> <p><b>FY 2022 Plans:</b> Plan and execute Joint Staff-sponsored Bold Quest 2022 capability demonstration and assessment, focused on interoperability for joint and coalition fires underpinned by Mission Partner Environment (MPE) concepts. Bold Quest data and assessments inform U.S. and Partner Nation investment in multiple capability areas: combat identification, friendly force tracking, digitally aided close air support and fires, integrated air and missile defense (Mode 5 Identify Friend or Foe), coalition intelligence surveillance and reconnaissance, integrated interoperable simulations, and cyber. These efforts directly support the National Military Strategy, the Chairman's global integration objectives and the Combatant Commanders conventional and Special Operations Forces (SOF) international engagement programs. Continue leading accreditation visits of current JFS ESC member programs and provide staff</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>assistance visits for development of close air support-related training and certification programs. Continue leading the CID-FFT ESC and JFS ESC in order to address capability shortfalls/gaps, analyze and recommend integrated joint and coalition solutions to warfighter issues.</p> <p><b>FY 2023 Plans:</b> Plan and execute Joint Staff-sponsored Bold Quest capability demonstration and assessment, focused on interoperability for joint and coalition fires underpinned by Mission Partner Environment (MPE) concepts. Bold Quest data and assessments inform U.S. and Partner Nation investment in multiple capability areas: combat identification, friendly force tracking, digitally aided close air support and fires, integrated air and missile defense (Mode 5 Identify Friend or Foe), coalition intelligence surveillance and reconnaissance, integrated interoperable simulations, and cyber. These efforts directly support the National Military Strategy, the CJCS' global integration objectives and the Combatant Commanders conventional and SOF international engagement programs. Continue leading accreditation visits of current JFS ESC member programs and provide staff assistance visits for development of close air support-related training and certification programs. Continue leading the CID-FFT ESC and JFS ESC in order to address capability shortfalls/gaps, analyze and recommend integrated joint and coalition solutions to warfighter issues.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increased experimentation efforts, compliance with the Department's economic assumptions and minor programmatic adjustments.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.023	3.481	6.968

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Biannual review of C4/Cyber resources includes an examination of the current and future Budget/Spend Plan, Lines of Effort and Acquisition Strategy.

The award of a Multi Award Contract (MAC) seeks efficiencies in the performance of requirements for C4/Cyber and Information services, and promotes contractor teaming to provide critical technical and management support. The MAC approach also seeks to reduce the costs of current contract support through the elimination of multiple fees for service contracts, and through the competitive award of contract services.



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 The Joint Staff</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 003 / Joint Fires C2 Interoperability

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Joint Fires C2 Interoperability</b>																												
Joint Fires C2 Interoperability																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Fires C2 Interoperability</i></b>				
Joint Fires C2 Interoperability	4	2022	3	2024

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 004 / Rapid Defense Experimentation Reserve
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
004: Rapid Defense Experimentation Reserve	-	-	-	10.000	-	10.000	10.000	11.000	11.000	12.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

To facilitate rapid modernization of the force, the Rapid Defense Experimentation Reserve (RDER) initiative was established in the Defense Planning Guidance for Fiscal Year 2023-2027, to encourage multi-component experimentation through a campaign of learning. Services, Agencies, and other participating organizations are to identify “best of breed” capabilities developed among the DoD prototyping programs, and execute approved projects through large-scale experiments in order to refine and/or validate the Joint Warfighting Concept (JWC). Organizations are to nominate proposals to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) that are multi-component – involving Joint Services, International partners and/or other government agencies – and link to one or more of the four key supporting concepts (“functional battles”) of the Joint Warfighting Concept: Joint Concept for Fires, Joint Concept for Command and Control, Joint Concept for Contested Logistics, and Joint Concept for Information Advantage.

The Department will implement multiple RDER experimentation series through projects with execution timelines ranging from one to two years. The USD(R&E) will review project progress, and nominate new series at least annually with the goal of quickly incorporating the most promising innovative prototypes into experiments, and promptly terminating projects that fail to achieve expectations. To support a disciplined approach to rapidly identify, incorporate and execute projects the Joint Staff J-7 will assess the degree of alignment for the proposals against the concepts for USD (R&E).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Rapid Defense Experimentation Reserve	-	-	10.000
<b>Description:</b> Experimentation outcomes will be designed to validate required capabilities enabling the JWC by evaluating and integrating prototyped technologies in operationally relevant, multi-domain environments.			
Experimentation results will facilitate Joint Staff J-7 analysis in the evaluation of the Joint Warfighting Concept, assist the Joint Requirements Oversight Counsel in requirements determination, and inform the Deputy’s Management Action Group to make budget decisions that effect changes throughout the Department.			
<b>FY 2023 Plans:</b> Joint all-domain experimentation, addressing high-need capability gaps across the Department.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Rapid Defense Experimentation Reserve</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Increased funding supporting Joint all-domain experimentation.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	10.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A





**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 The Joint Staff</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Rapid Defense Experimentation Reserve</i>

FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Joint Experimentation</b>																												
Joint Experimentation																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 004 / <i>Rapid Defense Experimentation Reserve</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Experimentation</i></b>				
Joint Experimentation	4	2022	3	2024

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603829J / <i>Joint Capability Experimentation</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	10.971	10.730	8.444	12.452	-	12.452	12.100	11.171	11.397	11.397	-	-
001: <i>Joint Capability Experimentation</i>	10.971	10.730	8.444	12.452	-	12.452	12.100	11.171	11.397	11.397	-	-

**A. Mission Description and Budget Item Justification**

The FY2019 National Defense Authorization Act (NDAA) amends the Chairman’s responsibilities to address experimentation on future concepts and the 2018 National Defense Strategy Implementation Guidance directs that rigorous experimentation take place on concepts to ensure Department investments adequately address future requirements as well as those of today. Accordingly, the Joint Staff requires an experimentation capability to analyze and validate priority joint concept required capabilities. The Joint Staff will lead, plan, execute the Global Integrated Wargame (GIWG) 21 events to examine the Joint Warfighting Concept (JWC) 2.0 operational logic and identified gaps to support delivery of an evaluated concept to the Secretary of Defense.

Concept analysis and validation will have a multi-faceted nature to meet the Chairmen’s Title 10 responsibility of, “identifying new joint military capabilities based on advances in technology and concepts of operation, and recommending investments and experiments in such capabilities.” Wargames will assess baseline mission and campaign level outcomes of the concepts as well as identify a tradespace of potential new capabilities. This tradespace of capabilities is further explored with quantitative models and software that identify the most efficient cost and capability tradeoffs to help meet the Title 10 responsibility of “advising the Secretary on new and alternative joint military capabilities, and alternative program recommendations and budget proposals, within projected resource levels.”

The National Defense Strategy directs “early design tradeoffs in the requirements process to increase the speed of delivery.” The Joint Staff approach to tradespace exploration follows that guidance by providing a cost conscious and operationally relevant prioritization tradeoff technique early in the portfolio design process. Using this rigorous prioritization approach, the capability development cycle can efficiently focus resources on more detailed experimentation of specific capabilities to inform the requirements process. The analysis from the experimentation program will be used to provide foundational evidence to directly inform the Joint Military Net Assessment (JMNA), the Chairman’s Program Recommendation (CPR), and ultimately the Defense Planning Guidance for Joint Force development.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 The Joint Staff	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603829J <i>I Joint Capability Experimentation</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	10.730	8.444	0.000	-	0.000
Current President's Budget	10.730	8.444	12.452	-	12.452
Total Adjustments	0.000	0.000	12.452	-	12.452
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	12.452	-	12.452

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. Increases to meet the Department's economic assumptions and increased experimentation efforts

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0603829J / <i>Joint Capability Experimentation</i>				<b>Project (Number/Name)</b> 001 / <i>Joint Capability Experimentation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
001: <i>Joint Capability Experimentation</i>	10.971	10.730	8.444	12.452	-	12.452	12.100	11.171	11.397	11.397	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The FY2019 NDAA amended the Chairman’s responsibilities to include experimentation on future concepts. The 2018 National Defense Strategy Implementation Guidance directed rigorous experimentation on concepts as a means to ensure Department investments adequately address future requirements, not just near term. Given this, the Joint Staff must establish an experimentation capability suitable for analysis and validation of priority joint concept required capabilities. The base of experimentation and wargaming will expand through the initial operating capability to full operating capability. This will provide the necessary capacity and capability. The combination will allow the Chairman to identify cost efficient and effective capability tradeoffs. This capability will enable the Chairman to fulfill his Title 10 responsibility, “advising the Secretary on new and alternative joint military capabilities, and alternative program recommendations and budget proposals, within projected resource levels.” This capability more fully supports the Chairman’s production of the Joint Military Needs Assessment (JMNA), the Chairman’s Program Recommendation (CPR) and ultimately the Defense Planning Guidance for Joint Force development.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Joint Capability Experimentation	10.730	8.444	12.452
<b>Description:</b> The FY 2019 NDAA amended the Chairman’s responsibilities to address experimentation on future concepts and the 2018 National Defense Strategy Implementation Guidance directed vigorous experimentation take place on concepts to ensure department investments are adequately addressing future requirements as well as those today. The project will deliver analytically rigorous, resource-conscious and operationally-validated portfolio investment strategies for the CJCS to ensure an enduring competitive advantage.			
<b>FY 2022 Plans:</b> Execute joint experimentation and wargaming focused on Joint Force Development (JFD) that will enhance the capability of the Joint Staff to provide the Chairman with sound analysis of the future environment, concepts, and joint capabilities.			
<b>FY 2023 Plans:</b> Execute joint experimentation and wargaming focused on Joint Force Development (JFD) that will enhance the capability of the Joint Staff to provide the Chairman with sound analysis of the future environment, concepts, and joint capabilities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increased RDTE efforts supporting force development experimentation.			
<b>Accomplishments/Planned Programs Subtotals</b>	10.730	8.444	12.452

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0603829J / <i>Joint Capability Experimenta tion</i>	<b>Project (Number/Name)</b> 001 / <i>Joint Capability Experimentation</i>

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605126J I <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	428.785	50.255	52.671	53.278	-	53.278	61.348	60.189	58.875	58.841	-	-
P001: <i>Core</i>	172.942	11.544	10.428	18.840	-	18.840	21.774	21.906	23.382	24.207	-	-
P005: <i>Nimble Fire</i>	138.846	20.036	19.876	13.797	-	13.797	15.244	14.712	13.579	13.205	-	-
P006: <i>Cruise Missile Combat Identification (CID)</i>	84.249	4.675	4.433	3.911	-	3.911	4.643	4.545	4.300	4.300	-	-
P007: <i>Homeland Defense Capability</i>	32.748	14.000	17.934	16.730	-	16.730	19.687	19.026	17.614	17.129	-	-

**A. Mission Description and Budget Item Justification**

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense chartered to plan, coordinate, and oversee Integrated Air and Missile Defense (IAMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff, JIAMDO supports the Chairman in meeting Title 10 responsibilities as they relate to IAMD issues. JIAMDO is the operational community’s proponent for requirements and capabilities in IAMD, and is the joint IAMD proponent within the DoD’s resource allocation structures. JIAMDO also leads IAMD mission and utility analysis, integrates IAMD within the force protection joint capability area, conducts evaluations, demonstrations of joint IAMD architectures, and provides advocacy for innovative, technically mature, and affordable solutions.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains close coordination with U.S. Strategic Command (USSTRATCOM) and U.S. Northern Command (USNORTHCOM) in support of ballistic missile defense of the United States. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review cost, schedule, and performance criteria of Missile Defense Agency missile defense programs, and assesses the validity of those criteria in relation to national and military requirements. At the request of USSTRATCOM and direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the IAMD prioritized capabilities list and the global integrated IAMD assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early warning mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO also provides direct support to North American Aerospace Defense Command and USNORTHCOM for homeland air and cruise missile surveillance issues and technical oversight of homeland capability solutions.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 The Joint Staff	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605126J <i>I Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>
--	---

<b>B. Program Change Summary (\$ in Millions)</b>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	50.255	52.671	0.000	-	0.000
Current President's Budget	50.255	52.671	53.278	-	53.278
Total Adjustments	0.000	0.000	53.278	-	53.278
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	53.278	-	53.278

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding. Adjustments to comply with the Department's economic assumptions.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	<b>Project (Number/Name)</b> P001 / Core
--	--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
P001: Core	172.942	11.544	10.428	18.840	-	18.840	21.774	21.906	23.382	24.207	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is chartered to plan, coordinate, and oversee Integrated Air and Missile Defense (IAMD) requirements, concepts, and architectures. As part of the Joint Staff, JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to IAMD issues. JIAMDO is the IAMD proponent for requirements and capabilities within the DoD's resource allocation system. JIAMDO leads IAMD mission and utility analysis, integrates IAMD within the force protection joint capability area, and conducts evaluations of joint IAMD architectures.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains close coordination with U.S. Strategic Command (USSTRATCOM) and U.S. Northern Command (USNORTHCOM) in support of ballistic missile defense of the United States. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review cost, schedule, and performance criteria of Missile Defense Agency missile defense programs. At the request of USSTRATCOM and at the direction of the CJCS, JIAMDO supports USSTRATCOM development of IAMD prioritized capabilities list and the global integrated IAMD assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early warning mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO also provides direct support to North American Aerospace Defense Command and USNORTHCOM for homeland air and cruise missile surveillance issues and homeland defense solutions.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Core	11.544	10.428	18.840
<p><b>Description:</b> Provides staff support for JIAMDO operations in the area of ballistic missile defense, air and cruise missile defense, homeland defense, requirements management, combat identification, modeling and simulation, analytical functions and products, senior level briefings, and all travel costs for government and contractor support personnel. Routine functions include performing analyses, demonstrations, and programmatic assessments of technology, operations, requirements, and weapons systems. In coordination with Services and CCMDs, JIAMDO Core funds the definition, assessment, development, and approval of Joint IAMD operational concepts, operational architectures, and capability requirements. These assessments guide the Department's joint, interagency, integrated and net-centric IAMD. JIAMDO Core provides funding to:</p> <ol style="list-style-type: none"> <li>1. Conduct and integrate joint studies, simulations, war games, force resource allocation, and interoperability initiatives.</li> <li>2. Manage relevant Congressional interaction and CCMD interface.</li> <li>3. Directly support and sponsor homeland air surveillance-related demonstration and analysis activities.</li> </ol>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P001 / <i>Core</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>4. Manage the Integrated Air and Missile Defense (IAMD) Working Group and co-chair the Protection Functional Capabilities Board focusing CCMD, Joint Staff, and Service collaboration efforts to generate joint concepts and develop the IAMD architecture and roadmap.</p> <p>JIAMDO Core enables strategic planning development, security, travel, and other support activities. Funding pays for: contracted Systems Engineering and Technical Assistance (SETA) support for Air &amp; Cruise Missile Defense (ACMD), Ballistic Missile Defense (BMD), Homeland Air Security (HAS) strategic planning, studies &amp; analysis, combat ID, modeling &amp; simulation. Additionally, the JIAMDO Core budget funds daily on-site security management personnel to meet DoD, National Industrial Security Program Operating Manual (NISPOM), and other security regulations, for all administrative and support functions related to higher security classifications, as well as basic office supplies and furniture, and classified/unclassified data connections.</p> <p><b>FY 2022 Plans:</b> Expand efforts to develop joint integrated air and missile defense (IAMD) requirements solutions. With the completion of the Engagement Coordination initial capabilities document (ICD) in mid FY 2020, continue to support solutions efforts with Missile Defense Agency (MDA) and Services for the Planning Capabilities ICD. Provide support to DISA for Networks Management Capabilities ICD. Ensures the solutions efforts support the Joint Requirements Oversight Council (JROC) validated capability requirements documents (ICDs).</p> <p><b>FY 2023 Plans:</b> Expand efforts to develop joint integrated air and missile defense (IAMD) requirements solutions.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> FY 2023 funding increase reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	11.544	10.428	18.840

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>
<b>D. Acquisition Strategy</b> N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)				<b>Project (Number/Name)</b> P005 / Nimble Fire			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
P005: <i>Nimble Fire</i>	138.846	20.036	19.876	13.797	-	13.797	15.244	14.712	13.579	13.205	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is chartered to plan, coordinate, and oversee Integrated Air and Missile Defense (IAMD) requirements, concepts, and architectures. As part of the Joint Staff, JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to IAMD issues. JIAMDO is the IAMD proponent for requirements and capabilities within the DoD's resource allocation system. JIAMDO leads IAMD mission and utility analysis, integrates IAMD within the force protection joint capability area, and conducts evaluations of joint IAMD architectures.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains close coordination with U.S. Strategic Command (USSTRATCOM) and U.S. Northern Command (USNORTHCOM) in support of missile defense of the United States. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review cost, schedule, and performance criteria of Missile Defense Agency missile defense programs. At the request of USSTRATCOM and at the direction of the CJCS, JIAMDO supports USSTRATCOM development of IAMD prioritized capabilities list and the global integrated IAMD assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM missile early warning mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO also provides direct support to North American Aerospace Defense Command and USNORTHCOM for homeland air and cruise missile surveillance issues and homeland defense solutions.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> JIAMDO Nimble Fire	20.036	19.876	13.797
<p><b>Description:</b> Nimble Fire is the Department's only IAMD operator-in-the-loop modeling and simulation capability supporting the Chairman's top five critical joint IAMD capabilities: wide-area surveillance and engagement quality tracking, pre-launch interdiction, non-kinetic post-launch capabilities, ballistic missile discrimination, and increased weapons ranges and lethality. Nimble Fire events generally explore joint IAMD capabilities and concepts in the FYDP plus two timeframe. The events combine experienced operators from the tactical communities, virtual simulations accredited by the program offices, current and future advanced capabilities, an integrated air, ballistic and cruise missile threat, and informed scenarios based on the Department's analytical agenda and CCMD operational plans. JIAMDO brings together stakeholders across the engineering, analytical, and tactical communities to assess Joint interoperability of Service and MDA programs of record, explore concepts of employment, inform tactics, techniques and procedures and concepts of operation, provide insights that help shape CCMD integrated priorities and future operational plans, and inform senior leader acquisition and requirements decisions.</p>			
<p><b>FY 2022 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P005 / <i>Nimble Fire</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Execute two Nimble Fire events in support of the Combatant Commands, the Services, and MDA. Continue upgrades to improve EW and multi-domain modeling &amp; simulation capabilities at the Virtual Warfare Center. Multi-domain primarily refers to space, attack or offensive operations, cyber effects and unmanned systems.</p> <p><b>FY 2023 Plans:</b> Execute Nimble Fire events in support of the Combatant Commands, the Services, and MDA. Continue upgrades to improve EW and multi-domain modeling &amp; simulation capabilities at the Virtual Warfare Center.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease to comply with fiscal guidance.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		20.036	19.876	13.797
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)				<b>Project (Number/Name)</b> P006 / Cruise Missile Combat Identification (CID)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P006: Cruise Missile Combat Identification (CID)	84.249	4.675	4.433	3.911	-	3.911	4.643	4.545	4.300	4.300	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is chartered to plan, coordinate, and oversee Integrated Air and Missile Defense (IAMD) requirements, concepts, and architectures. As part of the Joint Staff, JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to IAMD issues. JIAMDO is the IAMD proponent for requirements and capabilities within the DoD's resource allocation system. JIAMDO leads IAMD mission and utility analysis, integrates IAMD within the force protection joint capability area, and conducts evaluations of joint IAMD architectures.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains close coordination with U.S. Strategic Command (USSTRATCOM) and U.S. Northern Command (USNORTHCOM) in support of ballistic missile defense of the United States. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review cost, schedule, and performance criteria of Missile Defense Agency missile defense programs. At the request of USSTRATCOM and at the direction of the CJCS, JIAMDO supports USSTRATCOM development of IAMD prioritized capabilities list and the global integrated IAMD assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early warning mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO also provides direct support to North American Aerospace Defense Command and USNORTHCOM for homeland air and cruise missile surveillance issues and homeland defense solutions.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Cruise Missile Combat Identification (CID)	4.675	4.433	3.911
<b>Description:</b> Establishes joint requirements for emerging national and tactical combat identification technology and advocates for fielding CID technology to frontline weapon systems. Monitors, assesses, and enhances current joint air and cruise missile defense combat ID programs.			
<b>FY 2022 Plans:</b> Details of this program are classified and will be provided under a separate cover.			
<b>FY 2023 Plans:</b> Details of this program are classified and will be provided under a separate cover.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Minor adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.675	4.433	3.911

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 The Joint Staff		Date: April 2022
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	Project (Number/Name) P006 / Cruise Missile Combat Identification (CID)

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	<b>Project (Number/Name)</b> P007 / Homeland Defense Capability
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
P007: <i>Homeland Defense Capability</i>	32.748	14.000	17.934	16.730	-	16.730	19.687	19.026	17.614	17.129	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

**A. Mission Description and Budget Item Justification**

This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Homeland Defense Capability	14.000	17.934	16.730
<b>Description:</b> Develop Homeland Defense Capability			
<b>FY 2022 Plans:</b> Perform technology development efforts. Further details are reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.			
<b>FY 2023 Plans:</b> Perform technology development efforts. Further details are reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Minor adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	14.000	17.934	16.730

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0204571J I <i>Joint Staff Analytical Support</i>
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	64.441	3.058	0.977	4.332	-	4.332	4.001	3.267	3.337	3.337	-	-
P001: <i>Future Joint Force Development</i>	64.441	3.058	0.977	4.332	-	4.332	4.001	3.267	3.337	3.337	-	-

**A. Mission Description and Budget Item Justification**

The Joint Staff Analytical Support (JSAS) family of programs provide defense analytical support capabilities for the Joint Staff and Combatant Commands (CCMDs). JSAS encompasses tools and infrastructure required to conduct analyses and formulate results that assist the Chairman in fulfilling his statutory responsibilities. Key deliverables provided by JSAS include development of Joint Concepts, concepts of operation, innovative operational concept assessments, course of action development for the future joint force operating environment, analyses and studies for joint concept driven, threat-informed capability development approach to joint force development to aid in decision-making, and other analysis efforts to implement timely, low-cost joint force development initiatives.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	3.058	0.977	0.000	-	0.000
Current President's Budget	3.058	0.977	4.332	-	4.332
Total Adjustments	0.000	0.000	4.332	-	4.332
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	4.332	-	4.332

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding, and incorporates the Department's economic assumptions.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0204571J / <i>Joint Staff Analytical Support</i>				<b>Project (Number/Name)</b> P001 / <i>Future Joint Force Development</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
P001: <i>Future Joint Force Development</i>	64.441	3.058	0.977	4.332	-	4.332	4.001	3.267	3.337	3.337	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Joint Staff Analytical Support (JSAS) program supports the Chairman’s Title 10 responsibility for the analytical support, management and development of future-based joint concepts. These threat based Joint concepts include Joint concepts of operations that advance Joint Force operational effectiveness and enable the introduction and incorporation of new capabilities. The Joint Concepts program supports the Chairman's responsibility to express a vision for the future joint force; addressing operational problems on a 20-year horizon; identifying joint force development implications; and identifying capabilities required to mitigate and solve future joint warfighting gaps. The goal is to enable investment decisions balancing near and long term risk. Threat-informed joint concepts drive capability development and promote horizontal integration for force development across the Services, Combatant Commands, Defense agencies, OSD and Joint Staff. Key deliverables include: The Joint Staff Analytical Support (JSAS) program supports the Chairman’s Title 10 responsibility for the analytical support, management and development of future-based joint concepts. These threat based Joint concepts include Joint concepts of operations that advance Joint Force operational effectiveness and enable the introduction and incorporation of new capabilities. The Joint Concepts program supports the Chairman's responsibility to express a vision for the future joint force; addressing operational problems on a 20-year horizon; identifying joint force development implications; and identifying capabilities required to mitigate and solve future joint warfighting gaps. The goal is to enable investment decisions balancing near and long term risk. Threat-informed joint concepts drive capability development and promote horizontal integration for force development across the Services, Combatant Commands, Defense agencies, OSD and Joint Staff. Key deliverables include:

**Family of Joint Concepts (FOJC):** Based on the National Military Strategy (NMS) and providing operational and joint functional approaches to future adversary based challenges or opportunities. These concepts prioritize against near peer competitors and pacing threats. The FOJC drives capability development and alternative approaches to operating in support of a globally integrated force benchmarked against current and long-term pacing threats. The FOJC includes the Capstone Concept for Joint Operations, Joint Warfighting Concept, and Joint Supporting Concepts that address joint warfighting functions, Concepts of Operation.

**Capstone Concept for Joint Operations (CCJO):** Provides the Chairman's vision for future joint operations and establishes aim points for the development of the future Joint Force. The key theme is globally integrated operations and directs joint concept driven, threat-informed capability to regain competitive advantage.

**Joint Warfighting Concept (JWC):** Identifies innovative and alternative approaches and design options for the employment of the Joint Force out to 2030.

**Concepts of Operations (CONOPS):** Describe how the actions of the joint force components and supporting organizations are integrated, synchronized, and phased to accomplish a specific mission or function within the construct of a future scenario. CONOPS support evaluation of new ways of operating, future force posture mix, advanced capabilities, and authorities in exercises, wargames, and experiments.

**Joint Operating Environment (JOE) and the Gamechangers report:** Developed in partnership with DIA, this report describes the future security environment and projects the implications of change for the Joint Force. The documents describe the circumstances that may alter the security environment and explores how the intersection and

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0204571J / <i>Joint Staff Analytical Support</i>	<b>Project (Number/Name)</b> P001 / <i>Future Joint Force Development</i>
--	---	--

interaction of these changes might impact the character of war in the future. They provide a framework to think about the full range of Joint Force missions and how they may evolve over time in order to support development of threat-based future Joint concepts and concepts of operations.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> Future Joint Force Development</p> <p><b>Description:</b> Future joint force development provides analytic support required to develop future-based joint concepts. The goal is to enable investment decisions balancing near and long term risk. Threat-informed joint concepts drive capability development and promote horizontal integration for force development and design across the Services, Combatant Commands, Defense agencies, OSD and Joint Staff.</p> <p><b>FY 2022 Plans:</b> Execute the Chairman's Joint Concepts Program. Support the execution of the FY 2022 Globally Integrated War Game. Complete updated version of Joint Warfighting Concept and Joint Supporting Concepts. Continue global CONOP development to support evaluation of joint concepts in exercises, war games, and experimentation. In partnership with DIA, begin development of the next Gamechangers report and continue to lead the futures community of interest.</p> <p><b>FY 2023 Plans:</b> Execute the Chairman's Joint Concepts Program. Support the execution of the FY 2023 Globally Integrated War Game. Complete updated version of Joint Warfighting Concept and Joint Supporting Concepts. Continue global CONOP development to support evaluation of joint concepts in exercises, war games, and experimentation.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increased RDTE support to force development efforts.</p>	3.058	0.977	4.332
<b>Accomplishments/Planned Programs Subtotals</b>	3.058	0.977	4.332

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 The Joint Staff** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0804768J I Joint Training, Exercise and Evaluation Program (JTEEP)
--	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	76.726	29.292	29.530	37.852	-	37.852	38.182	36.017	36.111	36.230	-	-
701: Air Force Joint National Training Capability (JNTC)	5.728	2.869	2.431	2.409	-	2.409	2.409	2.409	2.409	2.409	-	-
758: Joint National Training Capability (JNTC)	56.877	20.542	23.157	31.193	0.000	31.193	31.532	29.367	29.461	29.580	-	-
769: Joint Knowledge Development & Distribution Capability (JKDDC)	2.734	1.108	0.826	0.817	-	0.817	0.808	0.808	0.808	0.808	-	-
772: Navy Joint National Training Capability (JNTC)	6.301	3.042	2.578	3.165	-	3.165	3.165	3.165	3.165	3.165	-	-
773: Joint Interoperability and Data Link Training Center (JID-TC)	3.264	1.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
774: USMC Joint National Training Capability (JNTC)	1.822	0.636	0.538	0.268	-	0.268	0.268	0.268	0.268	0.268	-	-

**Note**

On May 21 2021 Secretary Austin signed a policy memo directing renaming of the CE2T2 program with the Joint Training Exercise and Evaluation Program (JTEEP) and that CE2T2 is to be used in Budgetary matters until the term CE2T2 could be retired.

**A. Mission Description and Budget Item Justification**

These programs support readiness of the joint force by creating a joint training environment to replicate the complex and changing operational environment. These investments directly support defense strategic guidance, Joint Operational Training Infrastructure strategy, and enhance joint warfighting readiness by building training capabilities that support the operational readiness of the joint force. The elements associated with this coordinated effort consist of:

JNTC: The mission of the Joint National Training Capability (JNTC) program is to advance joint capabilities and interoperability by concentrating on emerging joint training requirements through collective training using a managed set of globally distributed capabilities and activities. The program resources Service and Special Operations Forces joint training to improve interoperability and create realistic tactical and operational joint training. JNTC enables joint training for Combatant Commands and Services by developing joint training content and ensuring global distributed access. JNTC enabling capabilities support Services and USSOCOM requirements to provide trained and ready joint forces in support of Combatant Command operational requirements. The program supports the Joint Operational

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0804768J <i>I Joint Training, Exercise and Evaluation Program (JTEEP)</i>	
<p>Training Infrastructure (JOTI). This program focuses efforts on improving readiness and creates a ready surge force consistent with Chairman’s guidance and will provide the means to train joint forces for the operationalization of the Joint Warfighting Concept.</p> <p>JKDDC: Joint Knowledge Development &amp; Distribution Capability (JKDDC) Joint Knowledge Online (JKO) is the program of record for online joint training that implements and operationalizes the OSD training transformation JKDDC. JKO directly supports the JTEEP/CE2T2 program by developing, delivering, tracking, reporting, and supporting online training for Combatant Command exercises; Combatant Command required training; doctrinally based Joint Operations Core Curriculum; multinational, coalition, interagency training; OSD required training; and administration of the Senior Enlisted Joint Professional Military Education program. JKO expends RDT&amp;E funding for leading edge technology review, market research, and integration to directly enhance various aspects of the training capability required to support Combatant Commanders, JTEEP/CE2T2 program objectives, and the Chairman's joint training guidance. JKO satisfies all requirements necessary to provide JTEEP/CE2T2 stakeholders with a distributed learning capability and access to web-based training content, learning resources, and distributed online training tools.</p> <p>Air Force Joint National Training Center (JNTC): Air Force JNTC funding provides a focused upgrade to develop models for space-based and cyber capabilities for integration into the Joint Live, Virtual, and Constructive (JLVC) environment as well supporting development of cross-domain solutions. Additionally, the Air Force invests in development of capabilities to enhance the rigor and fidelity of training for live and virtual members of joint training audiences.</p> <p>Navy JNTC: These funds enable Navy to develop unique maritime capabilities that integrate JLVC elements into a seamless joint training environment. The Navy program activities include conducting research, development, and integration of a common, realistic, joint and coalition, operational to tactical level training architecture to deliver individual and collective constructive joint training for use in Fleet Synthetic Training (FST) events, CCDR exercises, Ballistic Missile Defense Exercises (BMDEX) certification events, and BMD at Sea training events in support of CCDR’s training, deployment certification and operational requirements.</p> <p>JID-TC: Joint Interoperability and Data Link Training Center (JID-TC) supports 35 annual schoolhouse interoperability courses and up to six CAPSTONE Joint Interface Control Officer (JICO) courses tied to various Combatant Command (CCMD) joint exercises. JID-TC trains CCMD, Services and partner nations' operations center personnel on interoperability planning tasks required during contingencies and exercises in emerging mission areas such as joint fires, net enabled weapons, remotely piloted aircraft, integrated air and missile defense, and contested operations including secure internet with Link-16/TDL equipped major weapon systems and smart bombs. This program's R&amp;D ended in FY21.</p> <p>Marine Corps JNTC: These funds provide USMC stability and risk reduction to a variety of ongoing joint efforts focused on improving the fidelity and realism of training simulation systems that prepare Marine Air Ground Task Force (MAGTF) units for deployment in support of CCMD operations. Efforts align with JOTI Strategy Goal #1, Improve the use of LVC training and support the Commandant’s planning guidance. The Marine Corps will continue to improve performance and support of the MAGTF Tactical Warfare Simulation in the areas of the JLVC-Multi- Resolution Federation (MRF) Bridge, common database terrain data ingestion, and JLVC interoperability. It will provide a single source training environment capability enabling users to select single or multiple play boxes (terrain data sets) for training simulation systems. Also developing an exercise planning, design, implementation, execution, and control tool.</p> <p>ADL: The Advanced Distributed Learning (ADL) initiative supports innovation and provides policy oversight to help the Services, Joint Staff, and partner agencies deliver training and education more efficiently and cost effectively. ADL provides policy oversight and coordination across DoD, coalition partners, and other Federal agencies</p>		

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 The Joint Staff	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0804768J <i>I Joint Training, Exercise and Evaluation Program (JTEEP)</i>
--	--

for distributed learning. This oversight supports interagency interoperability and promotes personnel readiness, ensuring the right people receive the right training at the right time. This program transferred to OSD P&R in FY21.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	29.292	29.530	0.000	-	0.000
Current President's Budget	29.292	29.530	37.852	-	37.852
Total Adjustments	0.000	0.000	37.852	-	37.852
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	37.852	-	37.852

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding, and incorporates the Department's economic assumptions. FY23 funding increases support Large Scale Global Exercises.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>				<b>Project (Number/Name)</b> 701 / <i>Air Force Joint National Training Capability (JNTC)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
701: <i>Air Force Joint National Training Capability (JNTC)</i>	5.728	2.869	2.431	2.409	-	2.409	2.409	2.409	2.409	2.409	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Air Force JNTC funding provides a focused upgrade to develop models for employment of cyber and 5th generation capabilities for integration into the Joint Live, Virtual, and Constructive (JLVC) environment as well as supporting development of cross-domain solutions. Additionally, the Air Force invests in development of capabilities to enhance the rigor and fidelity of training for live and virtual members of joint training audiences.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Air Force Joint National Training Capability (JNTC)	2.869	2.431	2.409
<p><b>Description:</b> Air Force continues to develop joint enablers that drive realistic/effective training in contested and degraded environments across the JTEEP/CE2T2 enterprise. These capability enhancements provide a thinking and reactive Opposing Force (OPFOR) to challenge and engage both live and virtual Blue Forces using a combination of kinetic, non-kinetic, and cyber capabilities. Additionally, it continues to build upon prior investments in the cyber and space domains by improving fidelity of synthetic environments, ability to portray and control blue, red, and neutral entities and effects, interoperability with other Service, joint, and JLVC federation models and simulations, and support of JTEEP/CE2T2 mission partners. It also builds on prior investments in the One War Training System (OWTS) to enhance exercise control, safety, and feedback to training audiences in blended live and synthetic air and land domains.</p> <p><b>FY 2022 Plans:</b></p> <ol style="list-style-type: none"> <li>Continue to develop capabilities for live OPFOR surface-to-air threats to engage virtual as well as live Blue Force (BLUFOR) aircraft.</li> <li>Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Further develop the capabilities of the Joint Electric Power Range (JEPR) to ensure the Joint community has access to a high-fidelity, configurable, targetable electrical power distribution grids in order to support training for Joint ISR analysts, EW systems, cyber operators and campaign planners while enhancing infrastructure attack capabilities and defensive measures.</li> </ol>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 701 / <i>Air Force Joint National Training Capability (JNTC)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>3. Sustain development of and enhance new all-domain, full-spectrum operations capabilities against adversary-representative control systems (CS) which support adversary war making capabilities such as POL and chemical production, power generation/distribution, etc. Adversary CS replication provides enhanced planning and employment of integrated kinetic, EW, cyber, and ISR assets to achieve desired effects against adversary CS through all domains.</p> <p>4. Sustain development of an enhanced anechoic chamber to support controlled RF exercise events during all-domain Joint training enabling the execution of cost-effective, high-impact, timely and scoped training and exercising of integrated or converged technologies that will provide significant insight to the joint cyber/EW community and to the warfighter.</p> <p><b>FY 2023 Plans:</b></p> <p>1. Continue to develop capabilities for live OPFOR surface-to-air threats to engage virtual as well as live Blue Force (BLUFOR) aircraft.</p> <p>2. Sustain development of and enhance new capabilities for integration of the cyber simulator environment generator and "blue" cyber effects simulation. Further develop the capabilities of the Joint Electric Power Range (JEPR) to ensure the Joint community has access to a high-fidelity, configurable, targetable electrical power distribution grids in order to support training for Joint ISR analysts, EW systems, cyber operators and campaign planners while enhancing infrastructure attack capabilities and defensive measures.</p> <p>3. Sustain development of and enhance new all-domain, full-spectrum operations capabilities against adversary-representative control systems (CS) which support adversary war making capabilities such as POL and chemical production, power generation/distribution, etc. Adversary CS replication provides enhanced planning and employment of integrated kinetic, EW, cyber, and ISR assets to achieve desired effects against adversary CS through all domains.</p> <p>4. Sustain development of an enhanced anechoic chamber to support controlled RF exercise events during all-domain Joint training enabling the execution of cost-effective, high-impact, timely and scoped training and exercising of integrated or converged technologies that will provide significant insight to the joint cyber/EW community and to the warfighter.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease in this program as funds were realigned to support the Secretary of Defense's Joint Training Infrastructure Goals in other JTEEP/CE2T2 programs.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		2.869	2.431	2.409

UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 701 / <i>Air Force Joint National Training Capability (JNTC)</i>

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				<b>Project (Number/Name)</b> 758 / Joint National Training Capability (JNTC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
758: Joint National Training Capability (JNTC)	56.877	20.542	23.157	31.193	0.000	31.193	31.532	29.367	29.461	29.580	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Investment in the Joint National Training Capability (JNTC) program enables Service and Combatant Commands to train as they operate as part of the overall Joint Force. JNTC provides the technical standards, architecture, and development processes required to integrate/link joint training enablers in programs across the Department of Defense. The capabilities enable simultaneous training at scale, with aggregation of training audiences at the Combatant Command, Joint Task Force, Component Command headquarters, and Service tactical levels. The funding also supports modernization of the Joint Training Environment (JTE) through a Modular Open Systems Architecture (MOSA) approach to include development of a cloud-enabled, web-accessible Joint Training Tool (JTT) that supports all phases of an exercise (planning and design, execution, and AAR). The JTT will increase warfighter access to semi-automated training enablers within the Joint Training Synthetic Environment (JTSE). The JTT will also modernize the automation the Joint Training System (JTS) by incorporating current Joint Training Information Management System (JTIMS) capability, with a focus on data centrality, as outlined in the DoD Data Strategy. JNTC enables the Department of Defense to train the Joint Force on the operationalization of the current and future Joint Warfighting Concept, and provides more effective training by providing capabilities that replicate the contemporary and future operating environment. This program will implement the goals listed in the Joint Operational Training Infrastructure (JOTI).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Joint National Training Capability (JNTC)	20.542	23.157	31.193
<p><b>Description:</b> JNTC provides the technical standards, architecture, and development processes required to integrate/link joint training enablers in programs across the Department of Defense. The capabilities enable simultaneous training at scale, with aggregation of training audiences at the Combatant Command, Joint Task Force, Component Command headquarters, and Service tactical levels. The funding also supports modernization of the Joint Training Environment (JTE) through a Modular Open Systems Architecture (MOSA) approach to include development of a cloud-enabled, web-accessible Joint Training Tool (JTT) that supports all phases of an exercise (planning and design, execution, and AAR). The JTT will increase warfighter access to semi-automated training enablers within the Joint Training Synthetic Environment (JTSE). The JTT will also modernize the automation the Joint Training System (JTS) by incorporating current Joint Training Information Management System (JTIMS) capability, with a focus on data centrality, as outlined in the DoD Data Strategy.</p> <p><b>FY 2022 Plans:</b></p> <p>1. Expand capability and use of cloud-based, web-enabled JTT exercise design and planning services as the primary tool supporting Tier 1 and Tier 2 joint training exercise, and enabling synchronization of linked Tier 3 and Tier 4 exercises.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 758 / <i>Joint National Training Capability (JNTC)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
2. Plan approach for and begin development of current JTIMS capability within JTT.  3. Develop initial capabilities within planned persistent simulation service.  4. Enhance joint simulation (within JLVC) to keep pace with operational environment changes (annual requirement).  5. Support the Joint Operational Training Infrastructure goals.  <b>FY 2023 Plans:</b> 1. Expand capability of cloud-based, web-enabled JTT exercise design and planning and execution modules, furthering use as the primary tool supporting Tier 1 and Tier 2 joint training exercise, and enabling synchronization of linked Tier 3 and Tier 4 exercises.  2. Continue development of JTIMS capability within JTT. .  3. Develop additional capability within planned persistent simulation service of web-enabled, modular JTT and test against first CCMD use-cases.  4. Enhance joint simulation (within JLVC) to keep pace with operational environment changes (annual requirement).  5. Support the Joint Operation Training infrastructure goals.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increases in FY23 to support the Secretary of Defense’s Joint Training Infrastructure Goals.				
<b>Accomplishments/Planned Programs Subtotals</b>		20.542	23.157	31.193
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				<b>Project (Number/Name)</b> 769 / Joint Knowledge Development & Distribution Capability (JKDDC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
769: Joint Knowledge Development & Distribution Capability (JKDDC)	2.734	1.108	0.826	0.817	-	0.817	0.808	0.808	0.808	0.808	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Joint Knowledge Online (JKO) is the DoD unique and authoritative source for online joint training. JKO is tasked to develop a DoD enterprise-wide, joint individual training toolkit of web-enabled individual and small group training products, services, and enabling training technology. Products and services are developed in response to OSD program goals, CJCS training guidance, Joint Staff training priorities, and JKO stakeholders (Combatant Commands, Services, Combat Support Agencies, Interagency, and multinational partners) prioritized training requirements. JKO supports a career-long joint learning continuum, joint professional military education, and tailored common training standards to Service members on tasks that are jointly executed. JKO's research and development will improve all components of the Joint Total Learning Architecture (JTLA) including:

1. JKO Learning Management System (LMS): Development and enhancement is required to integrate advanced individual and staff training technologies and methodologies with larger scale, collective training exercises, and modernize military training capability with a DoD enterprise-wide online training toolkit. There are currently over 4.5 million registered users of the JKO LMS.
2. JKO Course Builder: JKO's Course Builder is a separate component used for organizations to develop online content by both internal and external joint enterprise teams. Course Builder mitigates the need to have programmer's code Shareable Content Object Reference Model (SCORM) standards into content with automation that promotes fiscal efficiency as well as operational responsiveness. Course Builder will advance to support new JKO Content Development techniques including responsive design, micro-learning, parallax scrolling and adaptive learning methodology.
3. Small Group Scenario Trainer (SGST) desktop modeling and simulation based training: This JKO capability trains and prepares thousands of military and civilian personnel deploying to Combatant Command theaters of operation prior to serving in their assigned Combined/Joint Task Force (C/JTF) billets. JKO integration of SGST simulation exercise scenarios and prerequisite JKO courses significantly enhance blended learning training support to large-scale, collective training exercises.
4. JKO Virtual Classroom (VC LASS): JKO's new virtual classroom, or VCLASS, meets the need for an enhanced distributed learning capability with the introduction of a collaborative learning environment. VCLASS is a customizable platform within JKO's architecture and that provides JKO elevated users the tools to meet the unique needs of DoD's training and education audience by providing online/blended course support with syllabus, messaging, gradebook, resources, announcements and synchronous instructional forums.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Joint Knowledge Development & Distribution Capability (JKDDC)	1.108	0.826	0.817

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 769 / <i>Joint Knowledge Development &amp; Distribution Capability (JKDDC)</i>

**B. Accomplishments/Planned Programs (\$ in Millions)**

**Description:** Joint Knowledge Online (JKO) advance technology initiatives primarily include the JKO Learning Management System (LMS) application, Course Builder, Small Group Scenario Trainer (SGST) desktop modeling and simulation based training capability, and Virtual Classroom, training applications. These capabilities increase access to, and facilitate the training and preparation of hundreds of thousands of military and civilian personnel deploying to Combatant Command (CCMD) theaters of operation prior to serving in their assigned Joint and Combined/Joint Task Force (C/JTF) billets. JKO LMS development and enhancements are required to develop, host, deliver, track, report and support students' completions, progress and survey results more effectively and efficiently. C/JTF "battle staffs" and combatant command (CCMD) personnel will be better trained, as individuals and as staffs, based on joint courses, SGST, VCLASS development, and implementation throughout the joint training enterprise.

**FY 2022 Plans:**

Continue to integrate and expand the virtual classroom (VC LASS) open source capability (Sakai) into the Global Content Distribution System (GCDS) and the JKO LMS suite of tools for synchronous (live) and asynchronous instructor led training. Integrate JTLA for component tools such as LMS, Coursebuilder, SGST, and VCLASS in support of advanced content and development techniques such as micro-learning, parallax scrolling, and Adaptive Learning Methodology. Continue extension of a micro learning technology , xAPI adaptation, Learning Record Store and Adaptive Learning Methodology to increase personalization capability of learning content. Increasing personalization capability delivers self-regulated micro-learning training that is designed to be engaging, usable and practical, allowing individuals to quickly access desired learning content whenever an opportunity arises. As DoD organizations increase training via DL opportunities, the methodologies of developing and delivering DL must be cutting edge, timely and optimize the learning experience of the joint warfighter. JKO content development advancements are allowing individuals to quickly access desired learning content whenever an opportunity arises. Continue to build out FVEY access and integrate JWICS military networks.

**FY 2023 Plans:**

Continue to integrate and expand the virtual classroom (VCLASS opensource capability (Sakai) into the Global Content Distribution System (GCDS) and the JKO LMS suite of tools for synchronous (live) and asynchronous instructor-led training. Integrate JTLA for component tools such as LMS, Coursebuilder, SGST, and VCLASS in support of advanced content and development techniques such as micro-learning, parallax scrolling, and Adaptive Learning Methodology. Continue extension of micro learning technology, xAPI adaptation, Learning Record Store and Adaptive Learning Methodology to increase personalization capability of learning content. Increasing personalization capability delivers self-regulated micro-learning training that is designed to be engaging, usable and practical, allowing individuals to quickly access desired learning content whenever an opportunity arises. As DoD organizations increase training via DL opportunities, the methodologies of developing and delivering DL must be cutting edge, timely and optimize the learning experience of the joint warfighter. JKO content development

FY 2021	FY 2022	FY 2023

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 769 / <i>Joint Knowledge Development &amp; Distribution Capability (JKDDC)</i>
--	--	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
advancements are allowing individuals to quickly access desired learning content whenever an opportunity arises. Continue to build out FVEY access and integrate JWICS military networks.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Adjustments in FY23 to support the Secretary of Defense’s Joint Training Infrastructure Goals.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.108	0.826	0.817

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				<b>Project (Number/Name)</b> 772 / Navy Joint National Training Capability (JNTC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
772: Navy Joint National Training Capability (JNTC)	6.301	3.042	2.578	3.165	-	3.165	3.165	3.165	3.165	3.165	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

These funds enable the Navy to develop unique maritime capabilities that integrate joint live, virtual, and constructive elements into a seamless joint training environment. The Navy program activities include conducting research, development, and integration of a common, realistic, joint and coalition, operational to tactical level training architecture to deliver individual and collective constructive joint training for use in Fleet Synthetic Training (FST) events, Combatant Commander (CCDR) exercises, Ballistic Missile Defense Exercises (BMDEX) certification events, and BMD at Sea training events in support of CCDR's training, deployment certification and operational requirements.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Navy Joint National Training Capability (JNTC)	3.042	2.578	3.165
<p><b>Description:</b> Develops unique maritime capabilities that integrate joint live, virtual, and constructive (JLVC) elements into a seamless joint training environment. Using a scientific and phased approach that focuses on modeling ground, air, space, and maritime capabilities, this program researches new technologies and methods that provide a crucial technology-based foundation that supports all JNTC training transformation, JLVC federation, and Combatant Commanders exercise and engagement operations. This program provides a current and emerging multi-functional and multi-domain near-peer threat environment and associated warfighting challenges to stimulate Joint and Navy training audiences, enabling the Fleet Commander to certify deploying forces in a synthetic Joint training environment and Joint Force Maritime Component Commands (JFMCCs) to participate in realistic Combatant Commander Exercises.</p> <p><b>FY 2022 Plans:</b></p> <ol style="list-style-type: none"> <li>1. Provide development of new capability for integration with annual software release of the Navy Training Baseline (NTB) to enable tactics, techniques and procedures (TTP) development for contested environments and Ballistic Missile Defense (BMD).</li> <li>2. Develop advanced models to support Navy and Joint Operational Level of War (OLW) exercises and tactical training; to include Anti-ship Cruise Missile (ASCM) defense, Counter-ISR, including unmanned system (UxS) defense, theater and regional BMD, and AEGIS Weapons System, maritime air, tactical air and unmanned sensor and weapon system capability upgrades.</li> </ol> <p><b>FY 2023 Plans:</b></p> <ol style="list-style-type: none"> <li>1. Provide continued development of capability for integration with annual software release of the Navy Training Baseline (NTB) to enable tactics, techniques and procedures (TTP) development for contested environments and Ballistic Missile Defense (BMD).</li> </ol>			



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 772 / <i>Navy Joint National Training Capability (JNTC)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
2. Continue to develop advanced models to support Navy and Joint Operational Level of War (OLW) exercises and tactical training; to include Anti-ship Cruise Missile (ASCM) defense, Counter-ISR, including unmanned system (UxS) defense, theater and regional BMD, and AEGIS Weapons System, maritime air, tactical air and unmanned sensor and weapon system capability upgrades.  <b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase in FY 23 to support the Secretary of Defense’s Joint Training Infrastructure Goals.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.042	2.578	3.165

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 The Joint Staff **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)	<b>Project (Number/Name)</b> 773 / Joint Interoperability and Data Link Training Center (JID-TC)
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
773: Joint Interoperability and Data Link Training Center (JID-TC)	3.264	1.095	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

This programs R&D ended in FY21.

**A. Mission Description and Budget Item Justification**

JID is the sole Department of Defense provider of joint interoperability training and Joint Interface Control Officer (JICO) production. JID trains CCMD, Services and partner nations' operations center personnel in mission areas such as joint fires, net enabled weapons, remotely piloted aircraft, integrated air and missile defense, and contested operations including secure internet with Link-16/TDL equipped major weapon systems and smart bombs. FY19 was the first year the JID received RDT&E funding in order to support the development of the JICO Simulator. The JICO Simulator will allow the JID to train students across the Services on the proper planning, management and execution of tactical data links (TDL) to fill the gaps for non-participating weapon systems missing in live exercises.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Joint Interoperability and Data Link Training Center (JID-TC)	1.095	-	-
<b>Description:</b> JICO Simulator will allow the JID to train students across the Services on the proper planning, management and execution of tactical data links (TDL). The simulator will allow the JID to build robust practice scenarios that students can execute fixing TDL architecture plans as necessary. This capability will not only create realistic training scenarios with the ability to inject multi-tactical data link network anomalies for training, but can also be used to support Combatant Command (CCMD) operations centers during planned exercises.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.095	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0804768J / Joint Training, Exercise and Evaluation Program (JTEEP)				<b>Project (Number/Name)</b> 774 / USMC Joint National Training Capability (JNTC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
774: USMC Joint National Training Capability (JNTC)	1.822	0.636	0.538	0.268	-	0.268	0.268	0.268	0.268	0.268	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

These funds advance USMC training capabilities by providing stability and risk reduction to a variety of efforts focused on improving the fidelity and realism of training simulation systems. These systems are tailored to prepare operational Marine Air Ground Task Force (MAGTF) units for worldwide deployment in support of CCMD operations and engagements and are available to any organization or entity training via the JLVC federation of training tools. Based on the Commandant's planning guidance and JOTI Strategy Goal #1 and objectives, the Marine Corps will continue to improve performance of the MAGTF Tactical Warfare Simulation in the areas of the JLVC-multi-resolution federation bridge, common database terrain data ingestion, and JLVC interoperability. The MAGTF Tactical Warfare Simulation also provides a single source training environment capability that enables users to select single or multiple play boxes (terrain data sets) for training simulation systems easing the burden of requesting terrain, 3D models, and other geographic layers into a single source. In addition to developing an exercise planning, design, implementation, execution, and control tool, the MAGTF Tactical Warfare Simulation also enhances indigenous population modular service enabling exercise designers the ability to rapidly build new scenarios and incorporate human geography elements into the training scenarios.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Marine Corps Joint National Training Capability (JNTC)	0.636	0.538	0.268
<p><b>Description:</b> Provides indigenous population (IP) concept development and integration, supporting both constructive and virtual training simulation systems by injecting "people packs" with realistic attributes and behaviors associated with specified regions. Full integration of terrain generation 3D models and objects into joint federation synthetic training environment eliminates the burden of requesting terrain data by the Services and CCMDs creates a single, shareable, repository across the federation. Initiates design and development of a joint exercise design and control tool enhancing connectivity across multiple platforms providing exercise planning, design and control within various joint simulation constructs. Addresses crucial integration of MAGTF Tactical Warfare Simulator (MTWS) into the Korean side of multi-resolution federation bridge supporting Ulchi Freedom Guardian covering training shortfalls in engineering obstacle simulations (minefields, chemical, anti-tank ditches, bridges, etc.).</p> <p><b>FY 2022 Plans:</b> Continue development of pattern-of-life (POL) models that can insert synthetic opposing forces and civilian population into scenarios that will autonomously respond with native behaviors of that region providing synthetic adversaries that adapt to various training scenarios in multi-domain joint training.</p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 The Joint Staff		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0804768J / <i>Joint Training, Exercise and Evaluation Program (JTEEP)</i>	<b>Project (Number/Name)</b> 774 / <i>USMC Joint National Training Capability (JNTC)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Provide a capability for all simulation systems to use the same standardized terrain datasets across training domains. Sustain pre-deployment training for operations while supporting the readiness of deployed forces, particularly those primarily focused on global response force readiness.</p> <p>Address crucial integration of MTWS into Korean side of multi-resolution federation bridge supporting USFK joint exercises covering shortfalls identified in addressing engineering obstacle simulations (minefields, chemical, anti-tank ditches, bridges, etc.).</p> <p>Continue design and development of a joint exercise design and control tool enhancing interoperability and connectivity across multiple platforms. Deliver sharper training environment definitions, assist with defining friendly, enemy, neutrals (including joint multinational and synthetic forces), and support to concurrent planning tools.</p> <p>Explore innovative ways to train for operations in strategically challenging trans-regional, multi-domain and multi-functional (TMM) environments. Use web-based cloud technologies to accelerate exercise development and execution.</p> <p><b>FY 2023 Plans:</b> Continue to work on providing a capability for all simulation systems to use the same standardized terrain datasets across training domains. Sustain pre-deployment training for operations while supporting the readiness of deployed forces, particularly those primarily focused on global response force readiness.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease in FY 23 to support the Secretary of Defense's Joint Training Infrastructure Goals in other JTEEP/CE2T2 programs.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		0.636	0.538	0.268
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**United States Special Operations Command**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

United States Special Operations Command • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 967**

**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 983**

**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 985**

**USSOCOM RDTE FY2023 Overseas Operations Costs Memo..... Volume 5 - 987**

**Acronyms..... Volume 5 - 989**

**Exhibit R-2s..... Volume 5 - 1001**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Research, Development, Test & Eval, DW	812,658	856,257				
Total Research, Development, Test & Evaluation	812,658	856,257				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

25 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		856,257	822,508
Total Research, Development, Test & Evaluation		856,257	822,508

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Applied Research	47,657	51,329				
Advanced Technology Development	92,656	112,415				
Operational Systems Development	672,345	692,513				
Total Research, Development, Test & Evaluation	812,658	856,257				
Summary Recap of FYDP Programs -----						
Intelligence and Communications	6,062	5,994				
Special Operations Forces	806,596	850,263				
Total Research, Development, Test & Evaluation	812,658	856,257				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Applied Research		51,329	49,174
Advanced Technology Development		112,415	118,877
Operational Systems Development		692,513	654,457
Total Research, Development, Test & Evaluation		856,257	822,508
Summary Recap of FYDP Programs -----			
Intelligence and Communications		5,994	6,095
Special Operations Forces		850,263	816,413
Total Research, Development, Test & Evaluation		856,257	822,508

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Applied Research	47,657	51,329				
Advanced Technology Development	92,656	112,415				
Operational Systems Development	672,345	692,513				
Total Research, Development, Test & Evaluation	812,658	856,257				
Summary Recap of FYDP Programs -----						
Intelligence and Communications	6,062	5,994				
Special Operations Forces	806,596	850,263				
Total Research, Development, Test & Evaluation	812,658	856,257				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Applied Research		51,329	49,174
Advanced Technology Development		112,415	118,877
Operational Systems Development		692,513	654,457
Total Research, Development, Test & Evaluation		856,257	822,508
Summary Recap of FYDP Programs -----			
Intelligence and Communications		5,994	6,095
Special Operations Forces		850,263	816,413
Total Research, Development, Test & Evaluation		856,257	822,508

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division C P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
U.S., Special Operations Command	812,658	856,257				
Total Research, Development, Test & Evaluation	812,658	856,257				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

25 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
U.S., Special Operations Command		856,257	822,508
Total Research, Development, Test & Evaluation		856,257	822,508

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	S e c
28	1160401BB	SOF Technology Development	02	47,657	51,329					U
		Applied Research		47,657	51,329					
72	1160402BB	SOF Advanced Technology Development	03	92,656	112,415					U
		Advanced Technology Development		92,656	112,415					
240	0305208BB	Distributed Common Ground/Surface Systems	07	6,062	5,994					U
261	1105219BB	MQ-9 UAV	07	20,489	63,065					U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07	26,995						U
263	1160403BB	Aviation Systems	07	239,991	173,537					U
264	1160405BB	Intelligence Systems Development	07	26,519	30,399					U
265	1160408BB	Operational Enhancements	07	164,711	179,230					U
266	1160431BB	Warrior Systems	07	67,226	125,473					U
267	1160432BB	Special Programs	07	7,220	10,486					U
268	1160434BB	Unmanned ISR	07	17,154	18,006					U
269	1160480BB	SOF Tactical Vehicles	07	13,736	7,703					U
270	1160483BB	Maritime Systems	07	66,037	62,630					U
271	1160489BB	Global Video Surveillance Activities	07	4,602						U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
28	1160401BB	SOF Technology Development	02		51,329	49,174	U
		Applied Research			51,329	49,174	
72	1160402BB	SOF Advanced Technology Development	03		112,415	118,877	U
		Advanced Technology Development			112,415	118,877	
240	0305208BB	Distributed Common Ground/Surface Systems	07		5,994	6,095	U
261	1105219BB	MQ-9 UAV	07		63,065	14,000	U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07				U
263	1160403BB	Aviation Systems	07		173,537	179,499	U
264	1160405BB	Intelligence Systems Development	07		30,399	75,136	U
265	1160408BB	Operational Enhancements	07		179,230	142,900	U
266	1160431BB	Warrior Systems	07		125,473	129,133	U
267	1160432BB	Special Programs	07		10,486	518	U
268	1160434BB	Unmanned ISR	07		18,006	3,354	U
269	1160480BB	SOF Tactical Vehicles	07		7,703	13,594	U
270	1160483BB	Maritime Systems	07		62,630	82,645	U
271	1160489BB	Global Video Surveillance Activities	07				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act ---	FY 2021 (Base + OCO) -----	FY 2022 Less Supplementals Enactment -----	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N S P.L. 117-103 e Enactment**** c
272	1160490BB	Operational Enhancements Intelligence	07	11,603	15,990				
		Operational Systems Development		672,345	692,513				
Total Research, Development, Test & Eval, DW				812,658	856,257				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c e n a r y
--	-----	----	---	-----	-----	-----	-
272	1160490BB	Operational Enhancements Intelligence	07		15,990	7,583	U
		Operational Systems Development			692,513	654,457	
					856,257	822,508	
Total Research, Development, Test & Eval, DW							

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

UNCLASSIFIED

U.S., Special Operations Command  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	S e c
28	1160401BB	SOF Technology Development	02	47,657	51,329					U
		Applied Research		47,657	51,329					
72	1160402BB	SOF Advanced Technology Development	03	92,656	112,415					U
		Advanced Technology Development		92,656	112,415					
240	0305208BB	Distributed Common Ground/Surface Systems	07	6,062	5,994					U
261	1105219BB	MQ-9 UAV	07	20,489	63,065					U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07	26,995						U
263	1160403BB	Aviation Systems	07	239,991	173,537					U
264	1160405BB	Intelligence Systems Development	07	26,519	30,399					U
265	1160408BB	Operational Enhancements	07	164,711	179,230					U
266	1160431BB	Warrior Systems	07	67,226	125,473					U
267	1160432BB	Special Programs	07	7,220	10,486					U
268	1160434BB	Unmanned ISR	07	17,154	18,006					U
269	1160480BB	SOF Tactical Vehicles	07	13,736	7,703					U
270	1160483BB	Maritime Systems	07	66,037	62,630					U
271	1160489BB	Global Video Surveillance Activities	07	4,602						U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

U.S., Special Operations Command  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	Se
--	-----	----	---	-----	-----	-----	c
28	1160401BB	SOF Technology Development	02		51,329	49,174	U
	Applied Research				51,329	49,174	
72	1160402BB	SOF Advanced Technology Development	03		112,415	118,877	U
	Advanced Technology Development				112,415	118,877	
240	0305208BB	Distributed Common Ground/Surface Systems	07		5,994	6,095	U
261	1105219BB	MQ-9 UAV	07		63,065	14,000	U
262	1160279BB	Small Business Innovative Research/Small Bus Tech Transfer Pilot Prog	07				U
263	1160403BB	Aviation Systems	07		173,537	179,499	U
264	1160405BB	Intelligence Systems Development	07		30,399	75,136	U
265	1160408BB	Operational Enhancements	07		179,230	142,900	U
266	1160431BB	Warrior Systems	07		125,473	129,133	U
267	1160432BB	Special Programs	07		10,486	518	U
268	1160434BB	Unmanned ISR	07		18,006	3,354	U
269	1160480BB	SOF Tactical Vehicles	07		7,703	13,594	U
270	1160483BB	Maritime Systems	07		62,630	82,645	U
271	1160489BB	Global Video Surveillance Activities	07				U

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

UNCLASSIFIED

U.S., Special Operations Command  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N S P.L. 117-103 e Enactment**** c
272	1160490BB	Operational Enhancements Intelligence	07	11,603	15,990				U
		Operational Systems Development		672,345	692,513				
Total U.S., Special Operations Command				812,658	856,257				

R-123BPB: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

U.S., Special Operations Command  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c e n a r y
--	-----	----	---	-----	-----	-----	-
272	1160490BB	Operational Enhancements Intelligence	07		15,990	7,583	U
	Operational Systems Development				692,513	654,457	
Total U.S., Special Operations Command					856,257	822,508	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 25, 2022 at 07:21:44



**UNCLASSIFIED**

United States Special Operations Command • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
28	02	1160401BB	SOF Technology Development.....	Volume 5 - 1001

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
72	03	1160402BB	SOF Advanced Technology Development.....	Volume 5 - 1007

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
240	07	0305208BB	Distributed Common Ground/Surface Systems.....	Volume 5 - 1015
261	07	1105219BB	MQ-9 Unmanned Aerial Vehicle (UAV).....	Volume 5 - 1025
262	07	1160279BB	Small Business Innovation Research/Small Bus Tech Transfer.....	Volume 5 - 1033

**UNCLASSIFIED**

**UNCLASSIFIED**

United States Special Operations Command • Budget Estimates FY 2023 • RDT&E Program

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
263	07	1160403BB	Aviation Systems.....	Volume 5 - 1045
264	07	1160405BB	Intelligence Systems Development.....	Volume 5 - 1113
265	07	1160408BB	Operational Enhancements.....	Volume 5 - 1139
266	07	1160431BB	Warrior Systems.....	Volume 5 - 1141
267	07	1160432BB	Special Programs.....	Volume 5 - 1227
268	07	1160434BB	Unmanned ISR.....	Volume 5 - 1229
269	07	1160480BB	SOF Tactical Vehicles.....	Volume 5 - 1245
270	07	1160483BB	Maritime Systems.....	Volume 5 - 1253
271	07	1160489BB	Global Video Surveillance Activities.....	Volume 5 - 1289
272	07	1160490BB	Operational Enhancements Intelligence.....	Volume 5 - 1291

**UNCLASSIFIED**

**UNCLASSIFIED**

United States Special Operations Command • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Aviation Systems	1160403BB	263	07.....	Volume 5 - 1045
Distributed Common Ground/Surface Systems	0305208BB	240	07.....	Volume 5 - 1015
Global Video Surveillance Activities	1160489BB	271	07.....	Volume 5 - 1289
Intelligence Systems Development	1160405BB	264	07.....	Volume 5 - 1113
MQ-9 Unmanned Aerial Vehicle (UAV)	1105219BB	261	07.....	Volume 5 - 1025
Maritime Systems	1160483BB	270	07.....	Volume 5 - 1253
Operational Enhancements	1160408BB	265	07.....	Volume 5 - 1139
Operational Enhancements Intelligence	1160490BB	272	07.....	Volume 5 - 1291
SOF Advanced Technology Development	1160402BB	72	03.....	Volume 5 - 1007
SOF Tactical Vehicles	1160480BB	269	07.....	Volume 5 - 1245
SOF Technology Development	1160401BB	28	02.....	Volume 5 - 1001
Small Business Innovation Research/Small Bus Tech Transfer	1160279BB	262	07.....	Volume 5 - 1033
Special Programs	1160432BB	267	07.....	Volume 5 - 1227
Unmanned ISR	1160434BB	268	07.....	Volume 5 - 1229
Warrior Systems	1160431BB	266	07.....	Volume 5 - 1141

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

# **Research, Development, Test and Evaluation, United States Special Operations Command**

## **(\$ In Thousands)**

**The FY 2023 Overseas Operations Costs transferred to the base budget are as follows:**

**Fiscal Year (FY) 2023 Overseas Operations Costs funding accounted for in the Base budget include:**

- There are no combat or direct combat support costs accounted for in the base budget.
- In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO \$14,682.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

## ACRONYMS

<b>Acronym</b>	<b>Full Naming Convention</b>
A2/AD	Anti-Access/Area Denial
AA	Air-to-Air
AbMN	Airborne Mission Networking
ACT	AFT Cabin Trainer
ADM	Acquisition Decision Memorandum
AMLCD	Active Matrix Liquid Crystal Display
ADS-B	Automatic Dependent Surveillance-Broadcast
AFRL	Air Force Research Laboratory
A&FC	Airworthiness and Flight Characteristics
AI	Artificial Intelligence
AISR	Airborne Intelligence, Surveillance, Reconnaissance
ALFPK	Austere Location Force Protection Kits
Alt PNT	Alternative Precision Location and Timing
AM	Amplitude Modulation
AMLCD	Active Matrix Liquid Crystal Display
AMN	Airborne Mission Network
AMS	Aviation Management System
APAS	Active Parallel Actuator System
ARSOA	Army Special Operations Aviation
ASE	Aircraft Survivability Equipment
ASIF	All Source Information Fusion
ATD	Advanced Technology Demonstration
ATPIALS	Advanced Target Pointer Illuminator Aiming Laser System
ATW	Advanced Threat Warning
AvFID	Aviation Foreign Internal Defense
AVS	Air Variant System
AWR	Air Worthiness Release
BAA	Broad Area Announcement
BFT	Blue Force Tracking
BLOS	Beyond Line of Site
BOA	Basic Ordering Agreement

## ACRONYMS

CASEVAC	Casualty Evacuation
C2	Command and Control
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computer
C4I	Command, Control, Communications, Computers, and Intelligence
C4IAS	Command, Control, Communications, and Computer Intelligence Automation Systems
CA	Civil Affairs
CAAS	Common Avionics Architecture Systems
CAR	Combat Assault Rifle
CASEVAC	Casualty Evacuation
CBA	Cost Benefit Analysis
CCFLIR	Combatant Craft Forward Looking Infrared Radar
CCA	Combatant Craft - Assault
CCH	Combatant Craft - Heavy
CCM	Combatant Craft - Medium
CCME	Combatant Craft Mission Equipment
CDR	Critical Design Review
CDU	Control Display Units
CERP	Capital Equipment Replacement Program
CFE	Contractor Furnished Equipment
CHMD	Color Helmet Mounted Display
CIO	Chief Information Officer
CIM	Civil Information Management
CIMDPS	Civil Information Management Data Processing System
CIRCM	Common Infrared Countermeasure
CMNS	Combat Mission Needs Statement
CMS	Combat Mission Simulator
CNVD	Clip-On Night Vision Device
COD	Correction of Deficiencies
COP	Common Operational Picture
COSI	Clip-On Short Wave Infrared Imager
COTI	Clip-On Thermal Imager



## ACRONYMS

COTM	Communications-on-the-Move
COTS	Commercial-Off-The-Shelf
CP	Counter-Proliferation
CPD	Capabilities Production Document
CQC	Close Quarter Combat
CT	Counter-Terrorism
C-UAS	Counter - Unmanned Aerial Systems
DAMS	Distributed Audio Media System
DCGS-SOF	Distributed Common Ground/Surface System--Special Operations Forces
DCM	Defensive Countermeasures
DCS	Dry Combat Submersible
DCU	Data Concentrator Unit
DDS	Dry Deck Shelter
DEWDS	Dedicated Electronic Warfare Display
DI2E	Defense Intelligence Information Environment
DOD	Department of Defense
DRWG	Distributed Common Ground/Surface System Working Group
DT	Developmental Testing
DTU	Data Transfer Unit
DVE	Degraded Visual Environment
DVEPS	Degraded Visual Environment Pilotage System
DWR	Defense Wide Review
DWS	Defensive Weapon System
EAC	Exploitation Analysis Centers
ECM	Electronic Countermeasures
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EGI	Embedded Global Inertial
EGPWS	Enhanced Ground Proximity Warning
ELINT	Electronic Intelligence
EMD	Engineering and Manufacturing Development

## ACRONYMS

ENT/ASIF	Enterprise All Source Information Fusion
EO/IR	Electro-Optical Infrared
EOSS	Electro-Optical Sensor System
EOTACS	Expeditionary Organic Tactical AISR Capability Set
ER	Extended Range
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EUD	End User Devices
EW	Electronic Warfare
FAA	Federal Aviation Agency
FABS	Fly-Away Broadcast System
FAR	Federal Acquisition Regulation
FADE	Fusion Analysis and Development Effort
FCD	Field Computing Devices
FFRDC	Federally Funded Research Development Center
FDWS	Forward Defensive Weapon System
FM	Frequency Modulation
FMV	Full Motion Video
FOC	Full Operational Capability
FoS	Family of Systems
FQT	Functional Qualification Test
FRP	Full Rate Production
FSOV	Family of Special Operations Vehicles
FVL	Future Vertical Lift
FY	Fiscal Year
FYDP	Fiscal Year Defense Plan
GATM	Global Air Traffic Management
GCC	Geographical Combatant Commander
GCS	Ground Control Station
GEOINT	Geospatial Intelligence
GFE	Government Furnished Equipment
GIG	Global Information Grid

## ACRONYMS

GMV	Ground Mobility Vehicle
GOTS	Government-Off-The-Shelf
GPPU	General Purpose Processing Units
GPS	Global Positioning System
GSK	Ground Signals Intelligence Kit
GTR	Gun Training Room
HEL	High Energy Laser
HF	High Frequency
HFIS	Hostile Fire Indicator System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held Imager
HLM	Handheld Laser Marker
IC	Intelligence Community
IDIQ	Indefinite Delivery/Indefinite Quantity
ILS	Integrated Logistics Support
IM	Insensitive Munitions
INOD	Improved Night/Day Observation/Fire Control Device
IOC	Initial Operational Capability
IPN	Installation Processing Node
IR	Infrared
IRAD	Industrial Research and Development
IRCM	Infrared Countermeasures
IRES	Improved Rotary Wing Electro-Optical Sensor
IRSS	Infrared Suppression System
ISIS	islamic State of Iraq and Syria
ISP	Integrated Survey Plan
ISR	Intelligence, Surveillance and Reconnaissance
ISR&T	Intelligence, Surveillance, Reconnaissance, and Targeting
IT	Information Technology
ITMS	Integrated Tactical Mission Systems
JIE	Joint Information Environment
JOS	Joint Operational Stocks

## ACRONYMS

JTAC	Joint Terminal Attack Controller
JTWS	Joint Threat Warning System
LAM	Laser Aiming Marker
LCM	Low Cost Modification
LCS	Load Carriage System
LEA	Long Endurance Aircrat
LFT&E	Live Fire Test and Evaluation
LiDAR	Light Detection and Ranging
LMAMS	Lethal Miniature Aerial Munition Systems
LOS	Line of Sight
LPI/LPD	Low Probability of Intercept/Low Probably of Detection
LRBS	Long Range Broadcast System
LR/LE	Long Range Endurance
LRIP	Low Rate Initial Production
LRU	Line Replaceable Unit
LSDB	Laser--Small Diameter Bomb
LTATV	Lightweight Tactical All Terrain Vehicle
LWIR	Long-Wave Infrared
MALET	Medium Altitude Long Endurance Tactical
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MANET	Mobile Ad-hoc Networking
MC/COP	Mission Command/Common Operational Picture
MCE	Military Construction Collateral Equipment
MDA	Milestone Decision Authority
MDO	Multi-domain Operations
MEDEVAC	Medical Evacuation
MELB	Mission Enhanced Little Bird
MERIT	Military Exploitation of Reconnaissance and Intelligence Technology
MFD	Multi-Function Display
MFP	Major Force Program
MG	Machine Gun
MGS	Modular Glove System

## ACRONYMS

MICH	Modular Integrated Communications Helmet
MIP	Military Intelligence Program
MIPR	Military Interdepartmental Purchase Request
MISO	Military Information Support Operations
MLE	Military Liaison Element
MMP	Multi-Mission Payload
MPE	Maritime Precision Engagement
MPU	Mission Processor Unit
MR/ME	Medium Range/Medium Endurance
MS	Milestone
MSSEP	Mobile SOF Strategic Entry Points
MTA	Middle Tier Acquisition
MTD	Mission Training Devices
MTPS	Mission Training and Preparation Systems
MTS-B	Multi-Spectral Targeting System--B
MTTE	Maritime Technology Transition and Exploitation
MTUAS	Multi-Mission Tactical Unmanned Aerial System
MWC	Mid-Water Column
MWIR	Mid-Wave Infrared
MWS	Missile Warning System
MYP	Multiyear Procurement
NDI	Non-Developmental Item
NDS	National Defense Strategy
NET	New Equipment Training
NGA	National Geospatial-Intelligence
NGFLIR	Next Generation Forward Looking Infrared Radar
NG CCFLIR	Next Generation Combatant Craft Forward Looking Infrared Radar
NGLS	Next Generation Loud Speakers
NLP	Natural Language Processing
NM	Nautical Mile
NRE	Non-Recurring Engineering
NSAV	Non-Standard Aviation

## ACRONYMS

NSCV	Non-Standard Commercial Vehicle
NSSS	National Systems Support to SOF
NTM	National Technical Means
NVD	Night Vision Devices
OA	Operational Assessment
OCO	Overseas Contingency Operations
OEM	Original Equipment Manufacturer
OFP	Operational Flight Program
OT	Operational Test
OT&E	Operational Test and Evaluation
P3I	Pre-Planned Product Improvement
PCAS	Persistent Close Air Support
PCU	Protective Combat Uniform
PDR	Preliminary Design Review
PE	Program Element
PED	Processing, Exploitation, and Dissemination
PGL	Precision Geo Location
PGM	Precision Guided Munitions
PISA	Predator Integrated Signals Intelligence Architecture
PME	Prime Mission Equipment
POR	Program of Record
PSM	Personal Signature Management
PSP	Precision Strike Package
PTT	Part Task Trainer
QL-CBA	Quick-Look Capabilities-Based Assessment
RAMS	Removable Airborne Military Information Support Operations System
RC-IED	Counter Radio Controlled-Improvised Explosive Device
RCI	Rapid Capability Insertion
R&D	Research and Development
RDT&E	Research, Development, Test, and Evaluation
RECCE	Tactical Reconnaissance Kit
RF	Radio Frequency

## ACRONYMS

RFCM	Radio Frequency Countermeasures
RIS	Radio Integration System
ROP	Remote Observation Post
RSTA	Reconnaissance, Surveillance, and Targeting Acquisition
RWR	Radar Warning Receiver
SA	Surface-to-Air
SAFC	Special Applications for Contingencies
SAPNET	Special Access Program Network
SATCOM	Satellite Communications
SBIR	Small Business Innovative Research
SBUD	Simulator Block Updates
SCE	Special Communications Enterprise
SCO	SOF Cryptologic Operator
SDB	Small Diameter Bomb
SDN	SOF Deployable Node
SDN-EP	SOF Deployable Node--Extension Packages
SDN-H	SOF Deployable Node-Heavy
SDN-L	SOF Deployable Node-Light
SDN-M	SOF Deployable Node-Medium
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SFAC	Security Forces Assistance Craft
SGM	Small Glide Munition
SIE	Special Operations Forces Information Environment
SIGINT	Signals Intelligence
SIL	System Integration Lab
SIM	Sensor Integration Module
SIP	System Inegration Partner
SIRFC	Suite of Integrated Radio Frequency Countermeasures
SKR	Silent Knight Radar
SMS	Special Mission System

## ACRONYMS

SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOF-P	Special Operations Forces--Peculiar
SOFNET	Special Operations Forces Network
SOFPREP	Special Operations Forces Planning, Rehearsal, and Execution Preparation
SOFSA	Special Operations Forces Support Activity
SOMPE	Special Operations Mission Planning and Execution
SOPGM	Standoff Precision Guided Munitions
SoS	System of Systems
SPCOM	Special Communications Field Segment - Enterprise
SPEAR	SOF Personal Equipment Advanced Requirements
SPPN	Special Purpose Processing Node
SMU	Special Mission Units
SR	Special Reconnaissance
SR/SE	Short Range/Short Endurance
SRTV	Secure Real-Time Video
SSE	Sensitive Site Exploitation
STAMP	SOCOM Tactical Airborne Multi-Sensor Platform
STC	SOF Tactical Communications
STLD	Small Target Location Devices
STTR	Small Business Technology Transfer
STUAS	Small Tactical Unmanned Aerial Systems
SURG	Suppressed Upper Receiver Group
SWAP	Size, Weight and Power
SWCS	Shallow Water Combat Submersible
SWIR	Shortwave Infrared
TACLAN	Tactical Local Area Network
TAK	Tactical Assault Kit
TALOS	Tactical Assault Lightweight Operator Suit
TAS	Threat Awareness System
TCCC	Tactical Combat Casualty Care
TDL	Tactical Data Link



## ACRONYMS

TENCAP	Tactical Exploitation of National Capabilities
TF/TA	Terrain Following/Terrain Avoidance
TOCNET	Tactical Operations Center
TMN	Tactical (Airborne) Mission Network
TMS	Tactical Mission Systems
TMMR	Technology Maturation and Risk Reduction
TPAN	Tactical Personal Area Networks
TRL	Technical Readiness Level
TSOC	Theater Special Operations Command
TTV	Team Transportable Variant
TTL	Tagging, Tracking and Locating
TV	Television
TVS/RSTA	Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition
UARC	University Affiliated Research Agreement
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UGS/UMS	Unattended Ground Sensors/Unattended Maritime Sensors
UHF	Ultra High Frequency
UI	User Interface
URG	Upper Receiver Groups
VAK	Virtual Accompany Kits
VAS	Visual Augmentation Systems
VAS-BM	Visual Augmentation-Binocular-Monocular
VASWA	Visual Augmentation System-Weapons Accessories
VBIED	Vehicle-Borne Improvised Explosive Device
VBL	Visible Bright Light
VBSS	Visit, Board, Search, and Seizure
VHF	Very High Frequency
VTC	Video Teleconferencing
VTOL	Vertical Take Off and Landing
WAN	Wide Area Network
WPAN	Wireless Personal Area Networks

**ACRONYMS**

WPNAC      Weapons Accessories

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing
S100: <i>SOF Technology Development</i>	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element enables United States Special Operations Command (USSOCOM) to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects. Applying small incremental amounts of investments to the Department of Defense (DOD), other government agencies, and commercial organizations allows USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire disruptive solutions and emerging technologies for Special Operations Forces (SOF). This project provides an investment strategy for USSOCOM to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, human endurance and sensory performance, and technology development objectives. This investment strategy is aligned to establish future SOF capability in support of Joint Warfighting Concepts.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	49.464	44.829	0.000	-	0.000
Current President's Budget	47.657	51.329	49.174	-	49.174
Total Adjustments	-1.807	6.500	49.174	-	49.174
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	6.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.807	-			
• Adjustments to Budget Year	-	-	49.174	-	49.174

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S100: *SOF Technology Development*

Congressional Add: *National Consortium for the Study of Terrorism*

Congressional Add: *Sustained Human Performance and Resilience*

Congressional Add: *Classified Sub-Project*

FY 2021	FY 2022
6.746	-
4.816	5.000
-	1.500

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>
--	--

<b>Congressional Add Details (\$ in Millions, and Includes General Reductions)</b>	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add Subtotals for Project: S100	11.562	6.500
Congressional Add Totals for all Projects	11.562	6.500

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of \$1.807 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Net increase of \$6.500 million is due to a Congressional Add for sustained human performance and resilience (\$5.000 million) and a Congressional Add for a Classified sub-project, details will be provided under separate cover (\$1.500 million).

FY 2023: FY 2023 funding increase of \$49.174 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$3.124 million to account for the availability of prior year execution balances.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>				<b>Project (Number/Name)</b> S100 / <i>SOF Technology Development</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
<i>S100: SOF Technology Development</i>	625.167	47.657	51.329	49.174	-	49.174	52.287	49.101	48.802	49.778	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments and leverages other organizations' technology projects. Small incremental co-investments with Department of Defense (DOD), other government agencies, and commercial organizations allow USSOCOM to influence the schedule and direction of technology developments, emerging technologies, and capabilities for Special Operations Forces (SOF), with significant economies of investment. This USSOCOM investment strategy is used to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, and technology objectives through key stakeholder relationships with the DOD and government technology developers. Technology development needs in these areas may be advertised to industry and government research and development agencies via agency announcements and calls for white papers.

**B. Accomplishments/Planned Programs (\$ in Millions)**

<b>Title:</b> SOF Technology Development	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Description:</b> This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments and leverages other organizations' technology projects. This project will continue to exploit and integrate emerging technologies to enable SOF to conduct assigned military responsibilities and expand in support of integrated deterrence. Increases focus on Next Generation Effects, particularly effects that are scalable or non-kinetic; capitalizes on commercial and government discoveries in data and analytics; explores future emplacement and access opportunities, sensor and sensor fusion technology, and biotechnologies and human interface capabilities. Also funds experimentation and concept development to equip the future SOF warfighter.</p> <p><b>FY 2022 Plans:</b> Continue ongoing technology development projects in areas such as, but not limited to: enabling power technologies; electromagnetic spectrum; data analytics; signature reduction technologies; high data-rate throughput; and advances in lightweight materials. Advance technologies for combat medical equipment, biotechnologies, tactics, human performance, sensors, information sources, and processing improvements, improve human-machine interfaces and displays, identify SOF specific machine learning/artificial intelligence, and secure communications. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.</p> <p><b>FY 2023 Plans:</b></p>	32.170	40.670	45.011

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / SOF Technology Development	<b>Project (Number/Name)</b> S100 / SOF Technology Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continues ongoing technology development projects in areas such as, but not limited to: enabling power technologies; electromagnetic spectrum; data analytics; signature reduction technologies; high data-rate throughput; and advances in lightweight materials. Advances technologies for combat medical equipment, biotechnologies, tactics, human performance, sensors, information sources, and processing improvements, improves human-machine interfaces and displays, identifies SOF specific machine learning/artificial intelligence, and secure communications. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$4.341 million supports USSCOM's focus on advanced research and development in artificial intelligence, machine learning, computing power and autonomous systems that will provide increased capability to SOF operators and platforms.</p>			
<p><b>Title:</b> Classified Sub-Project</p> <p><b>Description:</b> Classified Sub-Project (provided under separate cover).</p> <p><b>FY 2022 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2023 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.004 million will be provided under separate cover. This Sub-project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.</p>	3.925	4.159	4.163
<b>Accomplishments/Planned Programs Subtotals</b>	36.095	44.829	49.174

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> National Consortium for the Study of Terrorism</p> <p><b>FY 2021 Accomplishments:</b> Established Joint Special Operations University (JSOU) Advanced Research efforts for Irregular and Asymmetric Warfare in partnership with OSD Research and Engineering (R&amp;E). Expanded the National Consortium for the Study of Terrorism and Responses to Terrorism (START). The START effort will be awarded to the University of Maryland, College Park as the lead for the National Consortium for the Study of Terrorism in September 2021, using data sets and scientists' findings regarding Irregular and Asymmetric Warfare topics specific to SOF that support integrative statecraft and applied scenario testing. The deliverable for START is an academic study conducted by a consortium of university-based research entities</p>	6.746	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022	
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>	<b>Project (Number/Name)</b> S100 / <i>SOF Technology Development</i>	
<p>who will develop a wargame to explore multi-national and inter-agency challenges integral to Irregular Warfare conducted by SOF. Upon completion of the applied research effort, the consortium will deliver proposed updates to JSOU's existing curriculum and training programs of instruction and will be incorporated into courses by Academic Year 2022.</p>		<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> Sustained Human Performance and Resilience</p> <p><b>FY 2021 Accomplishments:</b> Continued ongoing development of human performance technology development projects, including performance nutrition and supplementation, achieving the results of exercise via alternative methods, maximizing cognitive performance, musculoskeletal injury prediction, sleep restoration, holistic assessment (e.g., physical/cognitive metrics, biomarkers, and genomics), and tracking of exposures throughout a SOF Operator's career. Continued pursuit of methods to reduce operator load and improve human-machine interfaces and displays.</p> <p><b>FY 2022 Plans:</b> Continue ongoing development of human performance technology development projects, including performance nutrition and supplementation, achieving the results of exercise via alternative methods, maximizing cognitive performance, musculoskeletal injury prediction, sleep restoration, holistic assessment (e.g., physical/cognitive metrics, biomarkers, and genomics), and tracking of exposures throughout a SOF Operator's career. Continue pursuit of methods to reduce operator load and improve human-machine interfaces and displays.</p>		4.816	5.000
<p><b>Congressional Add:</b> Classified Sub-Project</p> <p><b>FY 2022 Plans:</b> Additional details can be provided under separate cover. This Sub-project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.</p>		-	1.500
<b>Congressional Adds Subtotals</b>		11.562	6.500
<b>C. Other Program Funding Summary (\$ in Millions)</b>			
N/A			
<b>Remarks</b>			
<b>D. Acquisition Strategy</b>			
N/A			

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1,517.264	92.656	112.415	118.877	-	118.877	121.097	116.604	116.147	118.271	Continuing	Continuing
S200: <i>Advanced Technology Development</i>	1,441.618	74.936	93.019	84.496	-	84.496	86.241	81.348	80.386	81.993	Continuing	Continuing
SF101: <i>Engineering Analysis</i>	75.646	17.720	19.396	34.381	-	34.381	34.856	35.256	35.761	36.278	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Advanced Technology Development (Project S200) conducts rapid prototyping and Advanced Technology Demonstrations (ATDs). ATDs provide a means for demonstrating and evaluating the utility of disruptive solutions and emerging/advanced technologies in as realistic a operational environment used by Special Operations Forces (SOF). Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. ATDs also address projects that are a result of unique joint special mission or area-specific needs for which a few-of-a-kind prototypes must be developed on a rapid response basis, or of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase. This United States Special Operations Command ATD investment strategy is aligned to establish future SOF capability in support of Joint Warfighting Concepts.

Engineering Analysis (project SF101) provides rapid response capability for the investigation, evaluation, and demonstration of technologies for SOF platform (ground, air, and maritime) and soldier system-unique requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: sensor integration; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation; target detection; weapon performance integration; and future SOF platform and soldier system requirements. Provides additional engineering analysis and testing required to transition items from national forces to theater forces.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	96.861	93.415	0.000	-	0.000
Current President's Budget	92.656	112.415	118.877	-	118.877
Total Adjustments	-4.205	19.000	118.877	-	118.877
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	19.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.670	-			
• SBIR/STTR Transfer	-3.535	-			
• Adjustments to Budget Year	-	-	118.877	-	118.877

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>
---	---

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S200: *Advanced Technology Development*

Congressional Add: *Identity Threat Mitigation and Force Protection Initiative*

Congressional Add: *Assessing and Tracking Tactical Forces Initiatives*

Congressional Add Subtotals for Project: S200

Congressional Add Totals for all Projects

	FY 2021	FY 2022
	9.635	15.000
	-	4.000
Congressional Add Subtotals for Project: S200	9.635	19.000
Congressional Add Totals for all Projects	9.635	19.000

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of -\$4.205 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$3.535 million) and a reprogramming from Program Element (PE) 1160402BB SOF Advanced Technology Development to PE 1160431BB Warrior Systems in support of Maritime Precision Engagement Munition (MPE-M) (-\$0.670 million).

FY 2022: Net increase of \$19.000 million is due to a Congressional Add for assessing and tracking tactical forces initiatives (\$4.000 million) and a Congressional Add for identity threat mitigation and force protection initiative (\$15.000 million).

FY 2023: Funding increase of \$118.877 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development				<b>Project (Number/Name)</b> S200 / Advanced Technology Development			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S200: Advanced Technology Development	1,441.618	74.936	93.019	84.496	-	84.496	86.241	81.348	80.386	81.993	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for rapid prototyping, Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations. It is a means for demonstrating and evaluating the utility of emerging/advanced technologies in operationally relevant environments with Special Operations Forces (SOF) users. This project integrates disruptive solutions and emerging technologies and then presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. Evaluation results often facilitate the initiation of new programs and the insertion of appropriate technologies to acquisition programs. This program element leverages key stakeholder relationships with the DOD and government technology developers to address unique, joint special mission or area-specific needs for which a few rapid prototypes must be developed on a responsive basis, or of sufficient time sensitivity to accelerate prototyping efforts of a normal acquisition program in any phase.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> SOF Special Technology Project	59.476	67.849	78.323
<b>Description:</b> This project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. This project will continue to exploit and integrate emerging technologies to enable SOF to conduct assigned military responsibilities and expand in support of integrated deterrence. Increases focus on Next Generation Effects, particularly effects that are scalable or non-kinetic; capitalizes on commercial and government discoveries in data and analytics; explores future emplacement and access opportunities, sensor and sensor fusion technology, and biotechnologies and human interface capabilities. Also funds experimentation and concept development to equip the future SOF warfighter.			
<b>FY 2022 Plans:</b> Continue the development and insertion of technology into existing programs. Technologies include, but are not limited to: reduced signature profiles; Next Generation Effects; assured communications; command and control systems; machine learning/artificial intelligence; sensors; information sources; emplacement and access; and situational awareness tools; revolutionary materials; power and energy enablers; and technologies that reduce the load of the operator. Continue development of technologies supporting undersea, ground and air mobility. Evaluate and develop opportunities to leverage the electromagnetic spectrum to meet operational requirements. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Continue to develop sensors, surveillance, network and data management technologies to provide tactically relevant situational awareness at point of need. Continue effort			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development	<b>Project (Number/Name)</b> S200 / Advanced Technology Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>for field prototype system incorporating technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion.</p> <p><b>FY 2023 Plans:</b> Continues the development and insertion of technology into existing programs. Technologies include, but are not limited to: reduced signature profiles; Next Generation Effects; assured communications; command and control systems; machine learning/artificial intelligence; sensors; information sources; emplacement and access; and situational awareness tools; revolutionary materials; power and energy enablers; and technologies that reduce the load of the operator. Continues development of technologies supporting undersea, ground and air mobility. Evaluates and develops opportunities to leverage the electromagnetic spectrum to meet operational requirements. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Continues to develop sensors, surveillance, network and data management technology to provide tactically relevant situational awareness at the point of need. Continues effort for field prototype system incorporating technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continues USSOCOM's focus on modernization supporting advanced technology development.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$10.474 million is consistent with USSOCOM's focus on modernization supporting the advanced technology development of edge computing, data experimentation and data fusion, as well as continued advancements in information operations and electronic warfare technologies.</p>			
<p><b>Title:</b> Classified Sub-Project</p> <p><b>Description:</b> Classified Project (provided under separate cover).</p> <p><b>FY 2022 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2023 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.003 million will be provided under separate cover. This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.</p>	5.825	6.170	6.173
<b>Accomplishments/Planned Programs Subtotals</b>	65.301	74.019	84.496

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022	
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development	<b>Project (Number/Name)</b> S200 / Advanced Technology Development	
		<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Identity Threat Mitigation and Force Protection Initiative <i>FY 2021 Accomplishments:</i> Additional details provided upon request. <i>FY 2022 Plans:</i> This effort funds the development of Identity Threat Mitigation Systems for integration into the SOF Digital Ecosystem. Capabilities developed under this effort will provide enhanced identity protection and monitoring capabilities, incorporate new data sources, and enhance data fusion and display methods. Software-intensive Identity Threat Mitigation systems will be managed in accordance with agile methodologies and best practices.		9.635	15.000
<b>Congressional Add:</b> Assessing and Tracking Tactical Forces Initiatives <i>FY 2022 Plans:</i> Expand the Assessing & Tracking Tactical (ATTAC) Forces study to include retrospective analysis of baseline measurements in a long term monitored Special Operations Forces (SOF) population to demonstrate the ability to detect, prevent, and treat cognitive deficits, injury, or illness associated with Traumatic Brain Injury (TBI) and blast exposures associated with combat and training related events. Continue an analysis of blast gauge data correlated with other biometrics and medical history to assess the ability to correlate blast exposure with any trends in the incidence of injury, disease, cognitive decline, behavioral health concerns, or other measures to prevent or correct any effects of Repeated Sub-concussive Blast Exposure. Outcomes aim to provide tactics, techniques, and procedures that can be incorporated into training and operations to reduce the effects of exposures and extend the career of SOF personnel and quality of life following service.		-	4.000
<b>Congressional Adds Subtotals</b>		9.635	19.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development	<b>Project (Number/Name)</b> SF101 / Engineering Analysis
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
SF101: <i>Engineering Analysis</i>	75.646	17.720	19.396	34.381	-	34.381	34.856	35.256	35.761	36.278	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides a rapid response capability to support Special Operations Forces (SOF) programs and capabilities across the enterprise. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analysis of alternatives, pre-developmental risk reduction studies, and engineering analyses. This project provides the engineering required to improve the design and performance integrity of the SOF equipment and software and to integrate disruptive “off-the-shelf” technologies to meet current and emergent capability gaps. This project also conducts risk reduction studies, analyses, and demonstrations to support emerging, time-critical equipment, weapons, and sensor enhancements.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> National to Theater Engineering Analysis</p> <p><b>Description:</b> Provides additional engineering analysis and testing required to transition items from national forces to theater forces.</p> <p><b>FY 2022 Plans:</b> Continue additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.</p> <p><b>FY 2023 Plans:</b> Continues additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.048 million is to support additional testing and evaluation required on various equipment items.</p>	2.198	2.327	2.375
<p><b>Title:</b> Engineering Analysis</p> <p><b>Description:</b> Funding supports the development of rapid response capabilities to support SOF platform and soldier systems. Supports technology development to correct system deficiencies, improve platform asset life, and enhance mission capabilities. Supports engineering assessments and evaluation of technology feasibility, producibility, and integration into next generation soldier equipment. Supports engineering analysis activities to address platform survivability such as signature management, situational awareness, and versatile mission equipment (payloads, communications, and weapons) to achieve SOF mission objectives. Rapidly addresses technology needs for insertion into Programs of Record.</p>	11.668	13.069	28.006

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> SF101 / <i>Engineering Analysis</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2022 Plans:</i></b> Continue to assess concepts and prototypes that provide increased capability of SOF mobility platforms to include improvements to meet emerging threats. Assess and evaluate advanced methods to deliver tailorable lethality. Identify, assess, and evaluate improved network and data management systems that incorporate significant improvements to operate in contested environments, systems that improve situational awareness on the battlefield, and disruptive technologies to enable ISR in future environments. Continue to assess materials, concepts, and prototypes to increase operator effectiveness and situational awareness in all environments. Continue engineering analysis activities to improve SOF platform mission survivability. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness with full spectrum threat warning and countermeasures, and versatile mission equipment (payloads, communications, and weapons) to improve SOF survivability in less than permissive operating environments.</p> <p><b><i>FY 2023 Plans:</i></b> Continues to assess concepts and prototypes that provide increased capability of SOF mobility platforms to include improvements to meet emerging threats. Assesses and evaluates advanced methods to deliver next generation effects. Identifies, assess, and evaluates improved network and data management systems that incorporate significant improvements to operate in contested environments, systems that improve situational awareness on the battlefield, and disruptive technologies to enable ISR in future environments. Continues to assess materials, concepts, and prototypes to increase operator effectiveness and situational awareness in all environments. Continues engineering analysis activities to improve SOF platform mission survivability. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness with full spectrum threat warning and countermeasures, and versatile mission equipment (payloads, communications, and weapons) to improve SOF survivability in less than permissive operating environments.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$14.937 million supports initiatives in areas such as Data Fusion, Next Generation Effects and Information Dominance which is consistent with USSOCOM's focus on modernization to develop rapid response capabilities by inserting technology through a variety of acquisition pathways.</p>			
<p><b><i>Title:</i></b> Experimentation Force</p> <p><b><i>Description:</i></b> Funding supports the integration of technology with operational vignette-based experiments designed to stimulate innovative applications across all domains addressing SOF specific modernization needs.</p> <p><b><i>FY 2022 Plans:</i></b></p>	3.854	4.000	4.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> SF101 / <i>Engineering Analysis</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continue the development of innovative concepts and conduct experimentation to develop hyper-enabled teams capable of conducting globally integrated special operations across all domains.  <b>FY 2023 Plans:</b> Continues the development of innovative concepts and conducts experimentation to develop hyper-enabled teams capable of conducting globally integrated special operations across all domains.			
<b>Accomplishments/Planned Programs Subtotals</b>	17.720	19.396	34.381

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing
S400A: <i>Distributed Common Ground/Surface Systems</i>	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing rapid fielding of Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Combatant Command (COCOM), Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix high value targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, national intelligence agencies, combatant commands and multi-national partners. DCGS-SOF connects SOF warfighters and analysts with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The two components of DCGS-SOF are Enterprise/All Source Information Fusion (ENT/ASIF) and SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP). ENT/ASIF provides infrastructure, processing, and intelligence analytical tools for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SGIP provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	6.062	5.994	0.000	-	0.000
Current President's Budget	6.062	5.994	6.095	-	6.095
Total Adjustments	0.000	0.000	6.095	-	6.095
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	6.095	-	6.095

**Change Summary Explanation**

Funding:

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 7: <i>Operational Systems Development</i>	PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>

FY 2021: None.

FY 2022: None.

FY 2023: Funding increase of \$6.095 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Schedule: None.

Technical: None.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>				<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S400A: <i>Distributed Common Ground/Surface Systems</i>	61.289	6.062	5.994	6.095	-	6.095	6.214	5.854	6.066	6.187	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This program element is part of the Military Intelligence Program (MIP). The Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF) is part of a family of systems providing rapid fielding of Intelligence, Surveillance, and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Combatant Command (COCOM), Component/Theater Special Operations Commands (TSOC) level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighters, analysts, and sensors to find and fix high value targets and provides a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services with SOF and between the Services, national intelligence agencies, combatant commands and multi-national partners. DCGS-SOF connects SOF warfighters and analysts with the essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The two components of DCGS-SOF are Enterprise/All Source Information Fusion (ENT/ASIF) and SOF Geospatial Intelligence Processing, Exploitation, and Dissemination (SGIP). ENT/ASIF provides infrastructure, processing, and intelligence analytical tools for worldwide SOF intelligence information sharing via a globally connected cloud based architecture as well as a forward disconnected capability. SGIP provides capabilities in garrison and deployed environments for the PED of manned and unmanned sensors. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Accomplishments/Planned Programs (\$ in Millions)**

<b>Title:</b> DCGS-SOF	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
	6.062	5.994	6.095
<b>Description:</b> DCGS-SOF is composed of two major components: Enterprise/ASIF and SGIP. DCGS-SOF develops and integrates SOF hardware and software networks that provide United States Special Operations Command (USSOCOM) with unique decision capabilities to include: measurement and signature data; sensor exploitation; data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network to those who will interpret the data for rapid transmission to collaborative partners via the SOF Information Environment (SIE).			
<b>FY 2022 Plans:</b> Continue technology development, integration of emerging technologies, software solutions and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics; User Interfaces (UI); cloud computing; machine learning; and disconnected operations capability. Continue technology development, testing and integration of emerging technologies for SGIP. Continue DCGS-SOF Limited Objective Events and exercise participation to test integration of emerging			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
technologies and obtain user feedback of items in development. Continue tech development and integration of emerging technologies for SGIP.			
<b><i>FY 2023 Plans:</i></b> Continues technology development, integration of emerging technologies, software solutions and capabilities enhancements for DCGS-SOF ENT/ASIF requirements including but not limited to: Advanced analytics; UI; cloud computing; machine learning; and disconnected operations capability. Continues technology development, testing and integration of emerging technologies for SGIP. Continues DCGS-SOF Limited Objective Events and exercise participation to test integration of emerging technologies and obtain user feedback of items in development. Continues tech development and integration of emerging technologies for SGIP.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$0.101 million is due to projected price increases on new software development contract.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.062	5.994	6.095

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/020401INTL: <i>Distributed Common Ground/Surface System</i>	11.645	5.991	2.214	-	2.214	6.113	4.471	3.321	4.274	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

In FY 2021, DCGS SOF ENT/ASIF transformed to employ the software acquisition pathway to facilitate rapid and iterative delivery of operational software to meet dynamic SOF requirements. DCGS-SOF leverages SOF programs, DOD and Intelligence Community partners, national labs, and other government agencies to integrate Commercial Off The Shelf/Government Off The Shelf (COTS/GOTS), hardware and software solutions, and other mature technologies into the Program of Record which will reside partially within the SOF Information Enterprise combined with Web-Client tools in a global cloud. These alliances enable more agile access to (searchable, discoverable) and sharing of larger data domains and services to meet SOF-peculiar documented requirements. The technology allows for seamless integration and federation with DOD, Interagency, and Coalition tactical ISR PED systems. The DCGS-SOF program office employs an agile software development process with capability insertions into the development baseline for assessment and future deployment into the operational baseline. All development requirements are prioritized through the DCGS Requirements Working Group (DRWG) chaired by USSOCOM J2. Once approved, the requirements are evaluated and scheduled by engineering development teams. Using this methodology allows capabilities to be inserted in a fast and agile manner based on user requirements and priorities. All Evolutionary Technology Insertions (ETIs) in Exhibit R-4, RDT&E Schedule Profile, are based on current program office projections. If requirements change based on the DRWG decisions, the ETI and version capabilities identified may change.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development and Integration - Enterprise / All Source Information Fusion (ENT/ASIF)	Various	Various : Various	14.454	2.953	Jan 2021	3.732	Jan 2022	4.493	Jan 2023	-		4.493	Continuing	Continuing	-
Capabilities Modernization - SOF Geospatial Intelligence Processing Exploitation, and Dissemination (SGIP)	Various	Various : Various	19.760	0.730	Jan 2021	0.600	Jan 2022	0.750	Jan 2023	-		0.750	Continuing	Continuing	-
Independent Verification and Validation - SOF Signals Intelligence Processing Exploitation, and Dissemination (SOF SIGINT PED)	MIPR	Various : Various	2.936	0.829	Mar 2021	-		-		-		-	0.000	3.765	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	0.000	1.788	-
<b>Subtotal</b>			38.938	4.512		4.332		5.243		-		5.243	Continuing	Continuing	N/A

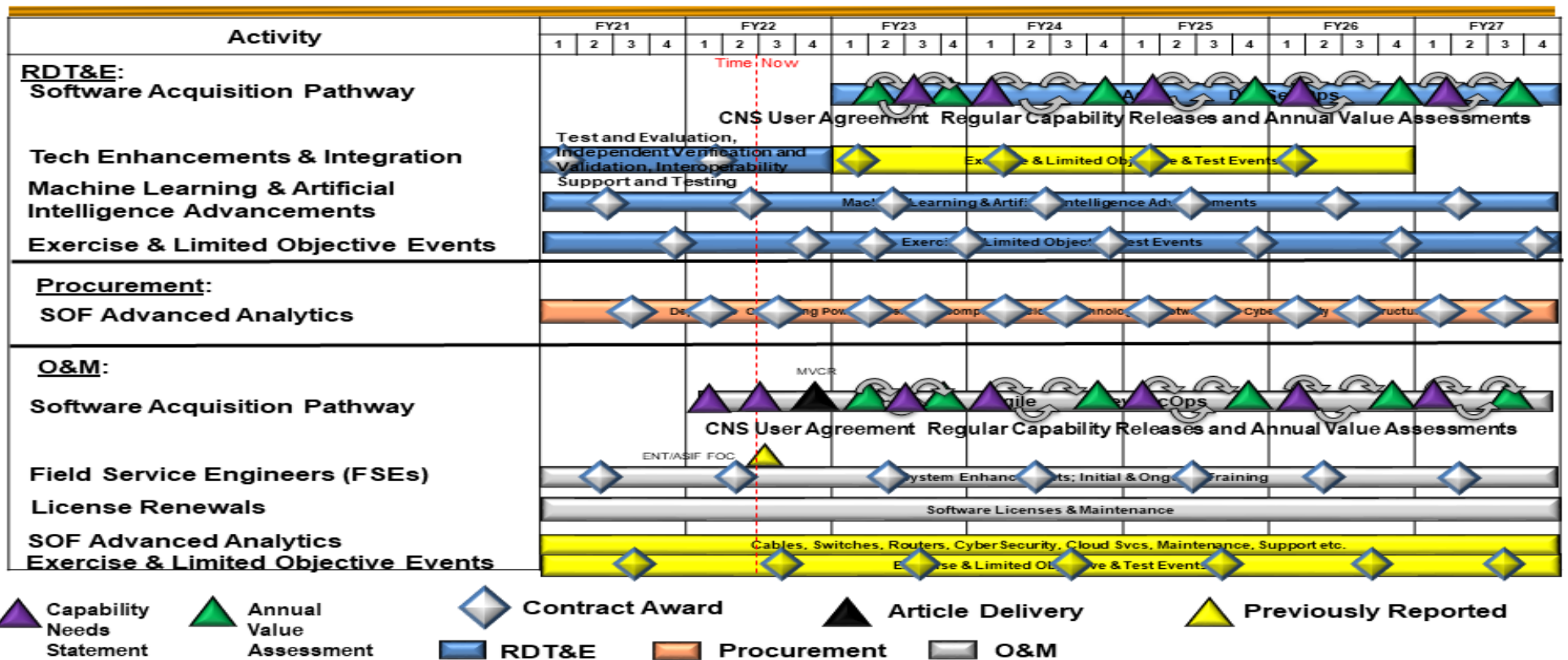
<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Support (ENT/ASIF)	C/FFP	Various : Various	6.982	1.100	Mar 2021	1.225	Mar 2022	0.591	Jul 2023	-		0.591	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	0.000	0.576	-
<b>Subtotal</b>			7.558	1.100		1.225		0.591		-		0.591	Continuing	Continuing	N/A



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

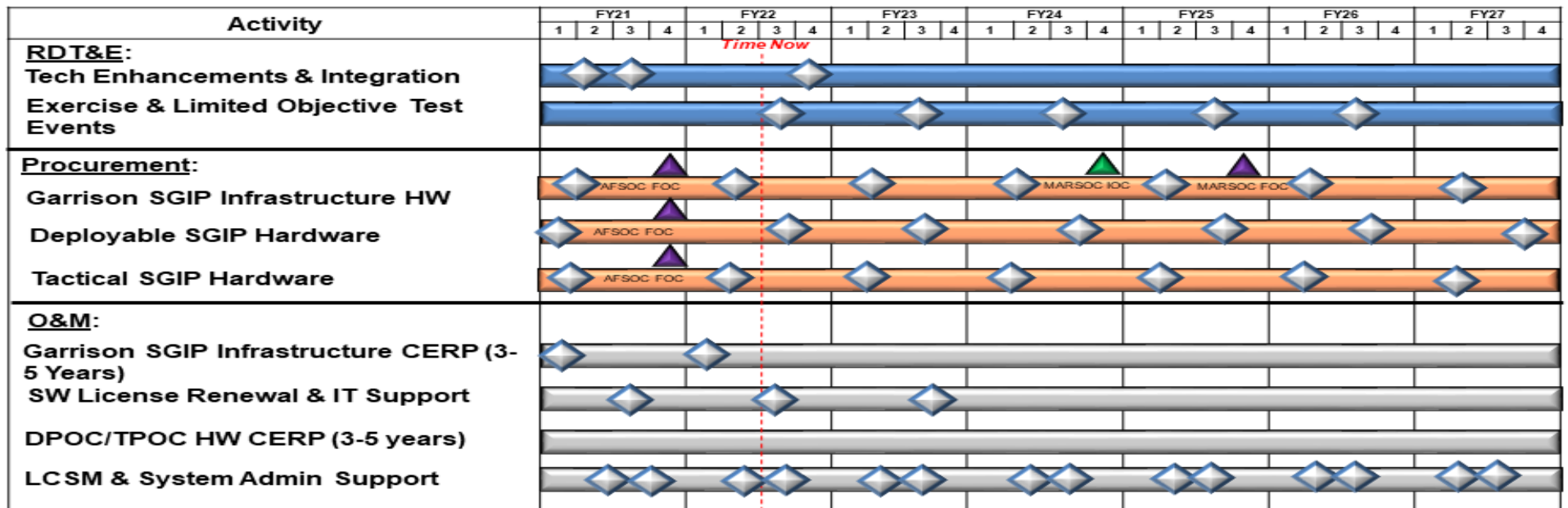
## Distributed Common Ground/Surface System-Special Operations Forces Enterprise/All Source Information Fusion (ENT/ASIF) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date: April 2022</b>
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

## Distributed Common Ground/Surface System-Special Operations Forces Geospatial Intelligence Processing, Exploitation and Dissemination (SGIP) Schedule



▲ FOC   
 ▲ Milestone   
 ▲ Agile SW MVP   
 ◆ Contract Award   
 [Blue bar] RDT&E   
 [Orange bar] Procurement   
 [Grey bar] O&M   
 ▲ Previously Reported



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

## SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD) Schedule

Activity	FY21			
	1	2	3	4
<b><u>RDT&amp;E:</u></b>				
Tech Enhancements/Integration and Test				
<b><u>Procurement:</u></b>				
Communication Silent Dagger Kits (CERP/Tech Refresh 5 Years)				
<b><u>O&amp;M:</u></b>				
Life Cycle Sustainment and Logistics				
Processing & Human Language Services				

Note: For FY 2021 and prior, funding was displayed under schedule titled SIGINT PED in Program Element (PE) 0305208BB; Project S400A Distributed Common Ground Surface Systems. Beginning in FY 2022, funding is contained in PE 1160405BB; Project S400 Special Operations (SO) Intelligence Systems under schedule titled Silent Dagger. Version 4 deployment shifted to FY24 and Version 5 shifted to FY28.



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Distributed Common Ground/Surface Systems - Enterprise/All Source Information Fusion (ENT/ASIF)</i></b>				
Software Aquisition Pathway	1	2023	4	2027
Tech Enhancements & Integration	1	2021	4	2022
Machine Learning and Artificial Intelligence Advancements	1	2021	4	2027
Exercise & Limited Objective Events	1	2021	4	2027
<b><i>Distributed Common Ground/Surface Systems - SOF Geospatial Intelligence Processing and Dissemination (SGIP)</i></b>				
Tech Enhancements & Integration	1	2021	4	2027
Exercise & Limited Objective Test Events	1	2021	4	2027
<b><i>SOF Signals Intelligence (SIGINT) Silent Dagger (SDAG)</i></b>				
Tech Enhancements/Integration and Test	1	2021	4	2021

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 <i>Unmanned Aerial Vehicle (UAV)</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing
S851: <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element identifies, develops, rapidly prototypes, integrates, and tests Special Operations Forces (SOF)-peculiar mission kits, mission payloads, weapons, and modifications on MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCSs), and training systems as a component of the Medium Altitude Long Endurance Tactical (MALET) program. The United States Special Operations Command (USSOCOM) is designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks. The USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Target Acquisition and Strike. These technologies will be pursued via rapid prototyping efforts when appropriate.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	21.265	19.065	0.000	-	0.000
Current President's Budget	20.489	63.065	14.000	-	14.000
Total Adjustments	-0.776	44.000	14.000	-	14.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	44.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.776	-			
• Adjustments to Budget Year	-	-	14.000	-	14.000

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*

Congressional Add: *Speed Loader Agile Pod*

Congressional Add: *Self-Protection Pods*

Congressional Add Subtotals for Project: S851

	FY 2021	FY 2022
	-	10.000
	-	34.000
	-	44.000

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>
---	--

<b>Congressional Add Details (\$ in Millions, and Includes General Reductions)</b>	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add Totals for all Projects	-	44.000

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of -\$0.776 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Net increase of \$44.000 million is due a to Congressional Add for speed loader agile pod (\$10.000 million) and a Congressional Add for self-protection pods (\$34.000 million).

FY 2023: Funding increase of \$14.000 million reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S851: MQ-9 Unmanned Aerial Vehicle (UAV)	151.255	20.489	63.065	14.000	-	14.000	29.688	34.851	29.427	39.340	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

As the supported combatant command in global operations, the United States Special Operations Command (USSOCOM) requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Target Acquisition and Strike. The majority of the developmental funds provides for the Operational Flight Program (OFP) Software for the aircraft, Ground Control Station (GCS), and turret. Special Operations Forces (SOF) peculiar modifications to the OFP allow for a rapid integration of emerging capabilities in order to maintain relevance and dominance of the MQ-9 in support of the National Defense Strategy (NDS).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> MQ-9 Unmanned Aerial Vehicles (UAVs)	20.489	19.065	14.000
<b>Description:</b> Identifies, develops, integrates, and tests SOF-peculiar mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, GCSs, and training systems.			
<b>FY 2022 Plans:</b> Develop, test, and integrate SOF-peculiar emerging technology mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, GCSs, and training systems.			
<b>FY 2023 Plans:</b> Develops, tests, and integrates SOF-peculiar emerging technology mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, GCSs, and training systems.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$5.065 million supports a deliberate approach to reinvest in modernization and advance the transition of special operations capabilities to support integrated deterrence and implement the joint warfighting concept.			
<b>Accomplishments/Planned Programs Subtotals</b>	20.489	19.065	14.000

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Speed Loader Agile Pod	-	10.000

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
--	---	---

	FY 2021	FY 2022
<b>FY 2022 Plans:</b> The Speed Loader Agile Pod (SLAP) will provide increased weapons carrying capability within the Common Launch Tube (CLT) family of systems. The SLAP will allow the MQ-9 to carry four weapons per pylon. Funds allow for the integration and testing of the SLAP capability on the SOF MQ-9 weapon system.		
<b>Congressional Add:</b> Self-Protection Pods <b>FY 2022 Plans:</b> Provide a self-protection capability on the MQ-9. This capability facilitates access and operation in denied or non-permissive airspace. Funds provide for the development and integration of a self-protect pod onto the SOF MQ-9 weapon system and delivery of prototype Engineer Design Model pods for further testing and development of techniques, tactics, and procedure.	-	34.000
<b>Congressional Adds Subtotals</b>	-	44.000

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• PROC/1108MQ9: MQ-9 Unmanned Aerial Vehicle	6.746	8.020	9.000	-	9.000	17.684	19.603	19.211	27.360	-	-

**Remarks**

**D. Acquisition Strategy**

MQ-9 UAV implements an agile acquisition approach for the MQ-9 aircraft, GCS and Electro-Optical/Infrared (EO/IR) turret sensor OFP software development. The MQ-9 UAV provides rapid prototyping activities and technology maturation events in order to increase first pass lethality. Contract types include a mix of cost type and fixed priced. Proprietary issues with the aircraft, GCS and sensor software as well as aircraft modification may require sole source contracting to the original equipment manufacturer. MQ-9 UAV leverages service common Contractor Logistics Support (CLS) contracts for aircraft and ancillary equipment sustainment.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCS), and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	94.159	16.992	Feb 2021	15.176	Feb 2022	12.000	Feb 2023	-		12.000	Continuing	Continuing	-
MQ-9 UAVs, GCS, and Training Systems	SS/ Various	Raytheon : McKinney, TX	12.693	1.496	Feb 2021	1.361	Feb 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
Speed Loader Agile Pod (Congressional Add)	SS/TBD	Air Force Research Lab (AFRL) : Huntsville, AL	-	-		4.250	Jul 2022	-		-		-	Continuing	Continuing	-
Self Protection Pods (Congressional Add)	SS/CPFF	General Atomics : Poway, CA	-	-		29.000	Jul 2022	-		-		-	Continuing	Continuing	-
Prior Years Completed Projects	Various	Various : Various	15.891	-		-		-		-		-	0.000	15.891	-
<b>Subtotal</b>			122.743	18.488		49.787		13.000		-		13.000	Continuing	Continuing	N/A

**Remarks**  
Indefinite Delivery, Indefinite Quantity (IDIQ) contract awards every two years for MQ-9 UAVs, Ground Control Stations, and Training Systems

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MQ-9 UAVs, GCS, and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	23.212	2.001	Feb 2021	2.528	Feb 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
Speed Loader Pod (Congressional Add)	SS/TBD	General Atomics : Poway, CA	-	-		5.750	Jul 2022	-		-		-	Continuing	Continuing	-
Self Protection Pods (Congressional Add)	SS/CPFF	General Atomics : Poway, CA	-	-		5.000	Jul 2022	-		-		-	Continuing	Continuing	-
Prior Years Completed Projects	Various	Various : Various	5.300	-		-		-		-		-	0.000	5.300	-
<b>Subtotal</b>			28.512	2.001		13.278		1.000		-		1.000	Continuing	Continuing	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 United States Special Operations Command							<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 7			<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)				<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)				
	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>		
<b>Project Cost Totals</b>	151.255	20.489	63.065	14.000	-	14.000	Continuing	Continuing	N/A		

**Remarks**



**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

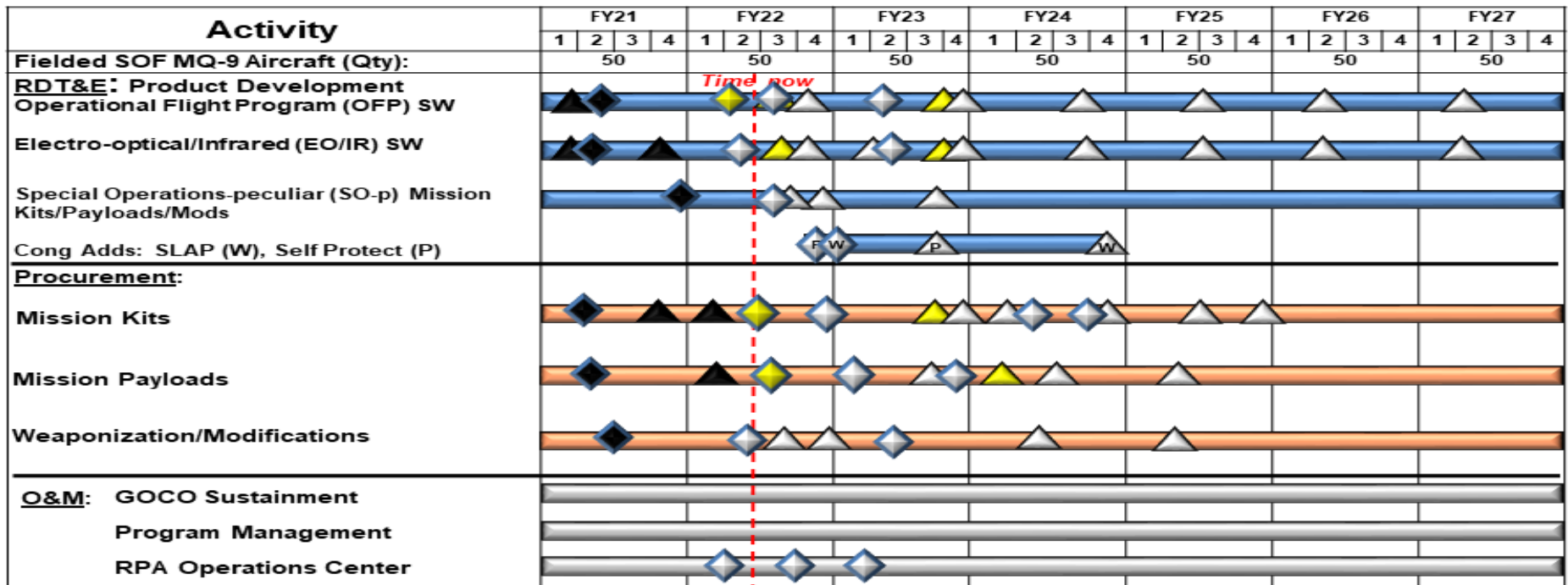
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)

Project (Number/Name)  
S851 / MQ-9 Unmanned Aerial Vehicle (UAV)

# MALET – MQ9 Schedule



◆ Article Award
▲ Article Delivery
■ RDT&E
■ Procurement
■ O&M
▲ Previously Reported

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MQ-9 Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCSs), and Training Systems Product Development</i></b>				
Operational Flight Program (OFF) Software (SW)	1	2021	4	2027
Electro-optical/Infrared (EO/IR) SW	1	2021	4	2027
Special Operations Forces-peculiar (SOF-p) Mission Kits/Payloads/Mods	1	2021	4	2027
Speed Loader Agile Pod and Self Protection Pods (Congressional Adds)	4	2022	4	2024

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	289.995	26.995	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S050: <i>Small Business Innovation Research</i>	274.180	23.666	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S051: <i>Small Business Technology Transfer</i>	15.815	3.329	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Innovation Research (SBIR) program are to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting-edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization, and lethality of the United States Special Operations Command (USSOCOM). This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter. The goals of the Small Business Technology Transfer (STTR) program is to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through the USSOCOM funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, USSOCOM supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

<b>B. Program Change Summary (\$ in Millions)</b>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	26.995	0.000	0.000	-	0.000
Total Adjustments	26.995	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	26.995	-			

**Change Summary Explanation**

Funding:

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>

FY 2021: Net increase of \$26.995 million is due to reprogrammings from various program elements for the congressionally mandated SBIR (\$23.666 million) and STTR (\$3.329 million) programs.

FY 2022: None.

FY 2023: None.

Schedule: None.

Technical: None.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>				<b>Project (Number/Name)</b> S050 / <i>Small Business Innovation Research</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S050: <i>Small Business Innovation Research</i>	274.180	23.666	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Innovation Research (SBIR) program is to stimulate technological innovation, increase private sector commercialization of federal research and development (R&D), increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation. Leveraging the innovation of small business concerns is an important contributor to the development of the cutting-edge technologies that will generate decisive and sustained U.S. military advantages by increasing the readiness, modernization, and lethality of the United States Special Operations Command (USSOCOM). This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Small Business Innovation Research (SBIR)	23.666	0.000	0.000
<b>FY 2022 Plans:</b>			
<ul style="list-style-type: none"> <li>• Biotechnology Space (estimated funding, \$3.400 million): Human performance improvements; in field medical improvements; and combat divers' breathing improvements.</li> <li>• Control and Communications (estimated funding, \$3.092 million): Small tactical ultra-secure communication.</li> <li>• Artificial Intelligence &amp; Machine Learning (estimated funding, \$8.600 million): Multi domain virtual innovation; social media monitor and measure development.</li> <li>• Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$5.000 million): Sniper heads up display; and small Unmanned Aerial System (UAS) munition.</li> </ul>			
<b>FY 2023 Plans:</b>			
<ul style="list-style-type: none"> <li>• Biotechnology Space (estimated funding, \$4.166 million): In field medical improvements; and combat divers' breathing improvements.</li> <li>• Control and Communications (estimated funding, \$4.204 million): Small tactical ultra-secure communication; low orbital satcom commercial mobile communications, command, and control for common operating picture.</li> <li>• Artificial Intelligence &amp; Machine Learning (estimated funding, \$3.000 million): Monitor and measure development; data analytics; and modeling and simulation.</li> <li>• Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$9.000 million): Improvements to SOF specific precision strike munitions; Sniper heads up display; and small UAS munition.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S050 / <i>Small Business Innovation Research</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
• Directed energy (estimated funding, \$3.000 million): Hi energy density battery.			
<b>Accomplishments/Planned Programs Subtotals</b>	23.666	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

SBIR is a three-phase program that provides early-stage R&D to small companies. Eligible projects must fulfill an R&D need identified by Department of Defense and have the potential to be developed into a product or service for commercial or defense markets. SBIR is designed to stimulate technological innovation, increase private sector commercialization of federal R&D, increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S050 / <i>Small Business Innovation Research</i>
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Small Business Innovation Research (SBIR) Phase I < \$150K	C/Various	Various : Various	43.681	3.891	Dec 2020	-		-		-		-	Continuing	Continuing	-
SBIR Phase II >\$750K	C/Various	Various : Various	31.988	19.775	Oct 2020	-		-		-		-	Continuing	Continuing	-
Prior Year Funding	C/Various	Various : Various	198.511	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			274.180	23.666		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	274.180	23.666	-	-	-	-	Continuing	Continuing	N/A

**Remarks**  
Due to multiple awards, the dates listed above reflect the first Phase I and II efforts awarded.

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command			<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7		<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>		<b>Project (Number/Name)</b> S050 / <i>Small Business Innovation Research</i>	

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Small Business Innovative Research (SBIR)</b>																												
Phase I Efforts	██████████																											
Phase II Efforts	██████████																											



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S050 / <i>Small Business Innovation Research</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Small Business Innovative Research (SBIR)</i></b>				
Phase I Efforts	1	2021	4	2021
Phase II Efforts	1	2021	4	2021

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>
--	--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S051: <i>Small Business Technology Transfer</i>	15.815	3.329	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The goals of the Small Business Technology Transfer (STTR) program is to stimulate a partnership of ideas between small business concerns (SBCs) and research institutions through the United States Special Operations Command (USSOCOM) funded research or research and development (R/R&D). By providing awards to SBCs or cooperative R/R&D efforts with research institutions, USSOCOM supports innovation and economic growth to generate decisive and sustained U.S. military advantages. This program supports high priority projects within the USSOCOM Components, their missions, and the Warfighter.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Small Business Technology Transfer (STTR)	3.329	0.000	0.000
<b>FY 2022 Plans:</b>			
• Advanced Small Arms Ammunition and Precision Strike (estimated funding, \$2.825 million): Improvements to SOF specific precision strike munitions.			
<b>FY 2023 Plans:</b>			
• A series of feasibility and initial research into the following focus areas (estimated funding, \$3.287 million): Next Gen Effects; Network & Data management; Biotechnologies & Human Interface; Next Generation Mobility; Next Generation Intelligence, Surveillance, and Reconnaissance (ISR) & Situational Awareness (SA); and Hyper Enabled Operator (HEO).			
<b>Accomplishments/Planned Programs Subtotals</b>	3.329	0.000	0.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The STTR provides early-stage R&D funding directly to small companies working cooperatively with researchers at universities and other research institutions. The STTR is also a three-phased program designed to stimulate technological innovation, increase private sector commercialization of federal R&D, increase small business participation in federally funded R&D, and foster participation by minority and disadvantaged firms in technological innovation.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Small Business Technology Transfer (STTR) Phase I <\$150K	C/FFP	Various Vendors : Various Locations	6.600	-		-		-		-		-	0.000	6.600	-
STTR Phase II >\$750K	C/Various	Various Vendors : Various Locations	4.092	3.329	Nov 2020	-		-		-		-	Continuing	Continuing	-
Prior Year Funding	C/Various	Various : Various	5.123	-		-		-		-		-	0.000	5.123	-
<b>Subtotal</b>			15.815	3.329		-		-		-		-	Continuing	Continuing	N/A

**Remarks**  
Due to multiple awards, the dates listed above reflect the last Phase I and II awarded.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	15.815	3.329	-	-	-	-	Continuing	Continuing	N/A

**Remarks**  
Due to multiple awards, the dates listed above reflect the first Phase I and II efforts awarded.

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command			<b>Date:</b> April 2022				
<b>Appropriation/Budget Activity</b> 0400 / 7		<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>			<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>		

	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>Small Business Technology Transfer (STTR)</i></b>																												
STTR Phase I Efforts																												
STTR Phase II Efforts																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovation Research/Small Bus Tech Transfer</i>	<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Small Business Technology Transfer (STTR)</i></b>				
STTR Phase I Efforts	1	2021	4	2021
STTR Phase II Efforts	2	2021	4	2021

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1,958.417	239.991	173.537	179.499	-	179.499	230.228	231.072	155.516	171.647	Continuing	Continuing
SF100: <i>Aviation Systems Advanced Development</i>	1,449.437	101.503	38.594	46.162	-	46.162	78.295	81.473	44.563	62.608	Continuing	Continuing
SF200: <i>CV-22</i>	64.061	13.011	6.932	11.695	-	11.695	-	9.727	19.064	19.445	Continuing	Continuing
SF300: <i>Armed Overwatch/ Targeting</i>	0.000	24.088	22.952	1.200	-	1.200	0.800	-	-	-	0.000	49.040
S750: <i>Mission Training and Preparation Systems</i>	51.441	9.272	10.227	13.848	-	13.848	17.430	16.804	13.530	13.800	Continuing	Continuing
S875: <i>AC/MC-130J</i>	95.574	51.783	52.045	40.757	-	40.757	65.496	63.116	17.184	17.528	Continuing	Continuing
D615: <i>Rotary Wing Aviation</i>	297.904	40.334	42.787	65.837	-	65.837	68.207	59.952	61.175	58.266	Continuing	Continuing

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 212

**A. Mission Description and Budget Item Justification**

SF100 Aviation Systems Advanced Development:

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation and training requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in areas such as: SOF common avionics; SOF Common Terrain Following/Terrain Avoidance (TF/TA) radar, best known as Silent Knight Radar (SKR) or AN/APQ-187; Defensive Countermeasures; Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP); PSP High Energy Laser (HEL); AC-130H/W/U and MC-130E/H/P Recapitalization; Armed Overwatch and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; mission networking; near real-time Intelligence, Surveillance and Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; survivability; mission systems automation and ISR payload technological improvements with size, weight, power and integration onto all SOF Unmanned Aerial System (UAS) ISR platforms.

SF200 CV-22 Development/Test and Evaluation:

The CV-22 Osprey is a SOF variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long range, high speed, infiltration (infil), exfiltration (exfil), and resupply to SOF teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The funding in this project supports integration, design, development, rapid prototyping, and test to provide improved capabilities to include, but not limited to: more robust performance in Situational Awareness (SA); ISR, weapons, avionics; SOF communications; defensive/survivability systems; interoperability; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV platform. The CV-22 SOF Common TF/TA APQ-187 SKR enables the CV-22 crew to penetrate medium-to-high threat areas at night and in adverse weather conditions while conducting long-range, clandestine infil, exfil and SOF resupply missions. Presents a more

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>
---	--

sustainable/capable replacement to the obsolete and technology-limited TF/TA APQ-186 Multi-Mode Radar (MMR). CV-22 Reliability Improvements designs, integrates, tests and validates system, and sub-system, reliability improvement enhancements to meet required aircraft availability and operational requirements. This incremental development will accelerate the fielding and retrofit of system design improvements directly increasing CV-22 fleet readiness and aircraft availability.

SF300 Armed Overwatch:

Armed Overwatch provides SOF with crewed deployable, affordable, and sustainable aircraft systems capable of executing Close Air Support (CAS), Precision Strike, and Manned Armed ISR requirements in austere and permissive environments for use in Irregular Warfare operations aligned with the National Defense Strategy (NDS) priorities. The funding in this project supports integration and testing of SOF-unique capabilities and Aircraft Certification efforts. Armed Overwatch is designated a Middle Tier of Acquisition (MTA) program which uses a Rapid Prototype user assessment for a SOF-peculiar, fixed wing aircraft with specific sensors to detect ground assists. The USSOCOM anticipates rapid fielding of the aircraft with sensors, and transitioning to the Major Capability Acquisition pathway at Milestone C.

The total cost of the Armed Overwatch Middle Tier of Acquisition effort is \$2.000 million (FY 2023 - FY 2027), including RDT&E and procurement of prototype units. The Armed Overwatch effort is fully funded across the Future Years Defense Program.

S750 Mission Training and Preparation Systems (MTPS):

The MTPS project funds the definition, design, development, rapid prototyping, integration, and testing of Special Operations Mission Planning and Execution (SOMPE) systems to support mission planning, rehearsal, and execution requirements to meet SOF-unique mission requirements and correct deficiencies in current mission planning, rehearsal, and execution capabilities. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse mission planning, rehearsal, and execution systems. Additionally, this project funds Simulator Block Upgrade (SBUD) training transformation initiatives to develop and integrate innovative training solutions as well as advanced instructor and student feedback capabilities for the Air Force Special Operations Command (AFSOC) fixed wing simulator and training device portfolio.

S875 AC/MC-130J:

The AC/MC-130J project funds core SOF-unique modifications to replace aging/retired AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II aircraft. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the PSP to achieve the AC-130J configuration. The AC-130J aircraft will provide close air support, air interdiction, and armed reconnaissance capability. The 14 MC-130E Combat Talon I, 23 MC-130P Combat Shadow, and 24 MC-130H Combat Talon II airframes will be replaced by MC-130J Commando II aircraft with SOF mission modifications. The MC-130J Commando II aircraft provide clandestine single or multi-ship low-level aerial refueling for special operations helicopters and CV-22 aircraft; and conducts airdrops of leaflets, small special operations teams, resupply bundles, and combat rubber raiding craft. The Air Force procures and fields the basic aircraft, common support equipment, and trainers for the United States Special Operations Command (USSOCOM). Incremental upgrade and agile software delivery approaches will be used to rapidly prototype, integrate and mature SOF capabilities onto the aircraft. SOF capabilities include, but are not limited to: Airborne Mission Networking (AbMN); data fusion; threat detection and avoidance; integrated terrain following/terrain avoidance; electronic warfare; and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-capable AC/MC-130J aircraft to recapitalize AFSOC legacy C-130 fleet.



**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>
---	--

**D615 Rotary Wing Aviation:**

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for SOF-peculiar rotary wing aviation and training requirements. This project includes modifications to Aircraft Survivability Equipment (ASE), avionics, and weapons systems to counter rapidly emerging threats, address cyber security, improve lethality and enhance aircraft self-protection in contested environments. Efforts include aircraft sensor data fusion via a common mission processor to create a one world model that serves as a central node for multi-application capability with potential growth in the areas of situational awareness, safety, lethality, and survivability and cross platform synergy. Rotary wing aircraft supported by this project include: MH-60M, MH-47G, A/MH-6, and Future Vertical Lift (FVL). These aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts. They must be capable of rapid deployment, undetected penetration of hostile areas, and operations at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF in the multi-domain operations (MDO) environments and build enduring advantage.

The anti-access/area denial (A2/AD) threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters.

These technologies will be pursued via rapid prototyping efforts when appropriate.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	250.623	173.537	0.000	-	0.000
Current President's Budget	239.991	173.537	179.499	-	179.499
Total Adjustments	-10.632	0.000	179.499	-	179.499
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-9.148	-			
• Adjustments to Budget Year	-	-	179.499	-	179.499
• Total Other Adjustments	-1.484	-	-	-	-

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of -\$10.632 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/ Small Business Technology Transfer (STTR) programs (-\$9.148 million) and a decrease to support emerging critical command requirements (-\$1.484 million).

FY 2022: None

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160403BB / <i>Aviation Systems</i>

FY 2023: Funding increase of \$179.499 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$22.474 million to account for the availability of prior year execution balances.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems				<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SF100: Aviation Systems Advanced Development	1,449.437	101.503	38.594	46.162	-	46.162	78.295	81.473	44.563	62.608	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation and training requirements. Timely application of SOF common technology is critical and necessary to meet requirements in such areas as: SOF common avionics; SOF Common Terrain Following/Terrain Avoidance (TF/TA) radar, best known as Silent Knight Radar (SKR) or AN/APQ-187; Defensive Countermeasures (DCM); Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP); PSP High Energy Laser (HEL); AC-130H/W/U and MC-130E/H/P Recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; Airborne Mission Networking (AbMN); near real-time Intelligence, Surveillance and Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; survivability; mission systems automation and ISR payload technological improvements with size, weight, power and integration onto all SOF Unmanned Aerial System (UAS) ISR platforms.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> EW-RFCM	46.557	21.605	10.075
<b>Description:</b> The EW-RFCM program supports development, integration, and test activities to provide EW capability against radio frequency threats for SOF-unique AC/MC-130J aircraft. The RFCM system is part of the DCM suite that provides situational awareness and threat response processing required for SOF missions.			
<b>FY 2022 Plans:</b> Continue aircraft integration and interoperability activities, system qualification, deficiency resolution and system developmental test. Begin system operational test on the AC-130J and MC-130J aircraft. Also, begin spiral one upgrade activities design to increase RFCM capabilities to meet emerging threats.			
<b>FY 2023 Plans:</b> Completes aircraft integration and interoperability activities, system qualification, deficiency resolution, system developmental test and system operational test on the AC-130J and MC-130J aircraft. Continues spiral one activities design to increase RFCM capabilities to meet emerging threats.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$11.530 million is due to completion of integration and operational test on AC-130J and MC-130J aircraft.			
<b>Title:</b> PSP for SOF	4.460	-	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Description:</b> PSP for SOF supports systems engineering, analysis, development, and enhancement of the baseline PSP and integration, installation, and test on host MC-130J aircraft provided by the U.S. Air Force for the AC-130H, AC-130W and AC-130U recapitalization, as well as current SOF AC-130Js, AC-130Ws, and other SOF platforms. Missions for the AC-130 aircraft include, but are not limited to: Close Air Support; Air Interdiction; and Armed Reconnaissance. PSP is modular, scalable, and platform agnostic.</p>			
<p><b>Title:</b> PSP HEL</p> <p><b>Description:</b> The HEL effort leverages a rapid prototyping approach to demonstrate integration of a laser weapon system onto an AC-130J aircraft. Utilizing a best of breed approach, it integrates laser, beam control, power, and thermal subsystems via a Government lead system integrator. This provides additional flexibility for rapid prototyping and future modifications.</p> <p><b>FY 2022 Plans:</b> Complete delivery of HEL subsystems. Continue Government integration and ground testing. Perform aircraft fit check and flight test planning activities.</p> <p><b>FY 2023 Plans:</b> Initiates HEL flight testing. Continues Government integration and ground testing. Performs aircraft fit check and flight test activities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$3.962 million is due to initiation of HEL flight testing on an AC-130J.</p>	23.313	12.008	15.970
<p><b>Title:</b> C-130 SOF Common TF/TA SKR</p> <p><b>Description:</b> The C-130 SOF Common TF/TA SKR supports integration and test of a TF/TA radar and on-board processor to provide a multi-mode terrain following capability on MC-130J aircraft. Crew systems integration efforts include modifications to aircraft controls and displays to automate TF/TA flight management and reduce pilot, copilot and Combat Systems Officer workload during missions previously performed by five aircrew members on legacy MC-130 tankers and penetrators.</p>	16.301	-	-
<p><b>Title:</b> MH-47/MH-60 SOF Common TF/TA SKR</p> <p><b>Description:</b> The MH-47/MH-60 SOF Common TF/TA SKR supports continuing capability enhancements, testing, and qualification of the TF/TA Low Probability of Intercept and Low Probability of Detection (LPI/LPD) radar to defeat advanced passive detection threats while maintaining safe TF capabilities.</p> <p><b>FY 2022 Plans:</b></p>	5.435	2.095	2.139

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continue software spiral efforts to reduce TF/TA SKR signature, support data fusion initiatives, and increase reliability.</p> <p><b>FY 2023 Plans:</b> Continues software spiral efforts to reduce TF/TA SKR signature, support data fusions initiatives, and increase reliability.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.044 million is due to increased SKR test engineering support costs.</p>			
<p><b>Title:</b> ISR Payload</p> <p><b>Description:</b> The ISR Payload Sensor Technology supports development, integration, and testing of sensor miniaturization efforts to adapt large uncrewed system ISR capabilities on all SOF unmanned ISR platforms.</p>	1.838	-	-
<p><b>Title:</b> Next Generation Aviation Engineering Analysis (AEA)</p> <p><b>Description:</b> Funding supports engineering analysis activities to address aviation survivability efforts such as signature management, situational awareness, versatile mission equipment (payloads, communications and weapons), next-generation mobility, and next-generation ISR to achieve SOF mission objectives.</p> <p><b>FY 2022 Plans:</b> Continue to perform engineering analysis and perform demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and datalink enhancements to support Fixed Wing next gen ISR, next gen Mobility and next gen Strike platforms. Activities include, but are not limited to, signature management (Acoustic, infrared, radio frequency), situational awareness with full spectrum threat warning and countermeasures, and versatile mission equipment (payloads, communications and weapons) to improve SOF survivability in less than permissive operating environments. Other technology advancements for Fixed Wing platforms include improvements for increased range, speed with reduced time to target, improving ability to insert and recover forces in contested environments and technology analysis on advanced mobility platforms (deep penetrating and aquatic landing). Strike enhancements include targeting/engagement automation, weapons effects and stand-off capability.</p> <p><b>FY 2023 Plans:</b> Continues to perform engineering analysis and to perform demonstrations to improve aviation mission survivability, mission automation, sensor fusion, targeting enhancement, cyber hardening, navigation in denied environments, and datalink enhancements to support Fixed Wing next-gen ISR, next-gen Mobility and next-gen Strike platforms. Activities include, but are not limited to, signature management (acoustic, infrared, radio frequency), situational awareness with full spectrum threat warning and countermeasures, and versatile mission equipment (payloads, communications and weapons) to improve SOF survivability in less than permissive operating environments. Other technology advancements for Fixed Wing platforms include improvements for increased range, speed with reduced time to target, improving ability to insert and recover forces in contested environments</p>	3.599	2.886	17.978

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
and technology analysis on advanced mobility platforms (deep penetrating and aquatic landing). Strike enhancements include targeting/engagement automation, weapons effects and stand-off capability. Begins additional efforts that will focus on early engineering analysis of amphibious capability and High Speed Vertical Take Off & Landing (HSVTOL) platform.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$15.092 million is due to amphibious mobility and HSVTOL engineering analysis activities.			
<b>Accomplishments/Planned Programs Subtotals</b>	101.503	38.594	46.162

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/5000C13000: <i>C-130 Modifications</i>	16.121	13.373	11.945	-	11.945	18.796	18.285	22.925	23.384	Continuing	Continuing
• PROC/2012C130J: AC/MC-130J	150.883	205.216	225.569	-	225.569	319.754	310.229	341.280	388.428	Continuing	Continuing
• PROC/1202PSP: <i>Precision Strike Package</i>	233.111	165.224	57.450	-	57.450	108.497	111.346	107.500	65.473	Continuing	Continuing
• PROC0201RWUPGR: Rotary <i>Wing Upgrades and Sustainment</i>	220.676	207.278	214.575	-	214.575	254.073	247.746	222.701	229.260	Continuing	Continuing

**Remarks**

- D. Acquisition Strategy**
- EW – RFCM: Awarded \$700 million ceiling acquisition and procurement contract covering Engineering and Manufacturing Development (EMD), Low-Rate Initial Production (LRIP), and Full-Rate Production (FRP) activities. EMD and LRIP are fixed price award fee incentivizing schedule and were awarded in 3rd Qtr FY 2020. FRP and other programmatic support activities (such as data rights and system integration laboratory options) are firm fixed price.
  - PSP for SOF: Incremental acquisition strategy to integrate and test the PSP and capability enhancements on donor MC-130J aircraft provided by the U.S. Air Force and other SOF aircraft. Multiple contract awards.
  - PSP HEL: AC-130J HEL program utilizes Naval Surface Warfare Center (NSWC) Dahlgren Division as the Government lead system integrator of HEL components. HEL system components are either purchased under Defense Ordnance Technology Consortium or developed and assembled by NSWC Dahlgren. Both approaches provide flexibility for rapid prototyping.
  - C-130 SOF Common TF/TA SKR: Awarded delivery order on cost plus incentive fee contract to integrate and test the SOF Common TF/TA SKR on MC-130J aircraft and develop modifications to aircraft displays and controls.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>

- MH-47/MH-60 SOF Common TF/TA SKR: Sole source to Raytheon to produce the SKR. SKR Logistics and MH-47G and MH-60M A-Kit production and installation proceeding at SOFSA, Lexington, KY. Contract Vehicle: Multi-Year Procurement (MYP) for FY 2021 through FY 2023 procurements.
- Next Generation AEA: Utilize Joint DOD programs to advance the technology levels for both the current Fixed Wing (FW) platforms and the advanced mobility platforms along with the Joint Aircraft Survivability Program sponsored projects to recommend material solutions for demonstration and potential integration on FW aircraft. Perform engineering analysis on key enabling technologies for amphibious and HSVTOL capabilities in conjunction with the Air Force Research Laboratory (AFRL), AFWERX, and other agencies.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM) Follow-on Development Contract	C/FPAF	Sierra Nevada Corp. : Centennial, CO	30.195	40.711	Mar 2021	5.361	Nov 2021	-		-		-	0.000	76.267	-
EW RFCM Spiral One	C/TBD	Various : Various	-	-		6.950	Mar 2022	6.500	Mar 2023	-		6.500	Continuing	Continuing	-
Precision Strike Package (PSP) for SOF - Defensive Systems	C/Various	Various : Various	27.901	3.000	Mar 2021	-		-		-		-	0.000	30.901	-
PSP for SOF- Alternate Position, Navigation, and Timing	C/Various	Various : Various	8.308	0.500	Feb 2021	-		-		-		-	0.000	8.808	-
PSP for SOF - Deficiency Resolution	C/Various	Various : Various	6.789	0.711	Apr 2021	-		-		-		-	0.000	7.500	-
PSP for SOF- Other Government Costs	C/Various	Various : Various	1.020	0.249	Feb 2021	-		-		-		-	0.000	1.269	-
PSP High Energy Laser (HEL) - High Power Laser	C/CPFF	Lockheed Martin Aculite : Bothell, WA	21.468	1.810	Mar 2021	-		-		-		-	0.000	23.278	-
PSP HEL - Subsystem Assembly	C/CPFF	Naval Surface Warfare Center : Dahlgren, VA	17.034	11.473	Apr 2021	-		-		-		-	0.000	28.507	-
PSP HEL - Battery Development	C/CPFF	General Technical Services : Wall, NJ	3.544	1.048	Mar 2021	-		-		-		-	0.000	4.592	-
PSP HEL - Integration and Ground Testing	C/CPFF	Naval Surface Warfare Center : Dahlgren, VA	4.659	7.564	Apr 2021	10.608	Dec 2021	-		-		-	0.000	22.831	-
PSP HEL - Flight Testing/ Demonstration	C/CPFF	Various : Various	-	1.418	Apr 2021	1.400	Mar 2022	15.970	Nov 2022	-		15.970	0.000	18.788	-
C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)	C/CPIF	Lockheed Martin Aero : Marietta, GA	207.288	11.834	Jan 2021	-		-		-		-	0.000	219.122	-



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MH-47/MH-60 SOF Common TF/TA SKR	SS/FP	Raytheon : McKinney, TX	15.163	4.726	Apr 2021	1.467	Apr 2022	1.421	Apr 2023	-		1.421	Continuing	Continuing	1.201
Intelligence, Surveillance, and Reconnaissance (ISR) Payload Development, Test and Integration	Various	Various : Various	7.438	1.838	Jul 2021	-		-		-		-	0.000	9.276	-
Next Generation Aviation Engineering Analysis (AEA)	C/CPFF	Various : Various	24.389	3.599	Jan 2021	2.886	Jan 2020	17.978	Nov 2022	-		17.978	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	689.866	-		-		-		-		-	0.000	689.866	-
Prior Year Funding - Classified Project Congressional Add	C/Various	Under Separate Cover : Under Separate Cover	8.000	-		-		-		-		-	0.000	8.000	-
<b>Subtotal</b>			1,073.062	90.481		28.672		41.869		-		41.869	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
EW-RFCM	C/Various	Various : Various	29.853	3.805	Jan 2021	1.171	Jan 2022	1.030	Jan 2023	-		1.030	Continuing	Continuing	-
C-130 SOF Common TF/TA SKR	C/CPIF	Various : Various	19.976	1.932	Dec 2020	-		-		-		-	0.000	21.908	-
Prior Year Funding - Completed Efforts	Various	Various : Various	47.547	-		-		-		-		-	0.000	47.547	-
<b>Subtotal</b>			97.376	5.737		1.171		1.030		-		1.030	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
EW-RFCM	C/Various	Various : Various	11.461	2.041	Dec 2020	8.123	Jan 2022	2.545	Jan 2023	-		2.545	Continuing	Continuing	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
C-130 SOF Common TF/TA SKR	C/CPIF	Various : Various	43.770	2.535	Dec 2020	-		-		-		-	0.000	46.305	-
MH-47/MH-60 SOF Common TF/TA SKR	SS/FP	Various : Various	127.306	0.709	Jan 2021	0.628	Jan 2022	0.718	Nov 2022	-		0.718	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	39.130	-		-		-		-		-	0.000	39.130	-
<b>Subtotal</b>			221.667	5.285		8.751		3.263		-		3.263	Continuing	Continuing	N/A

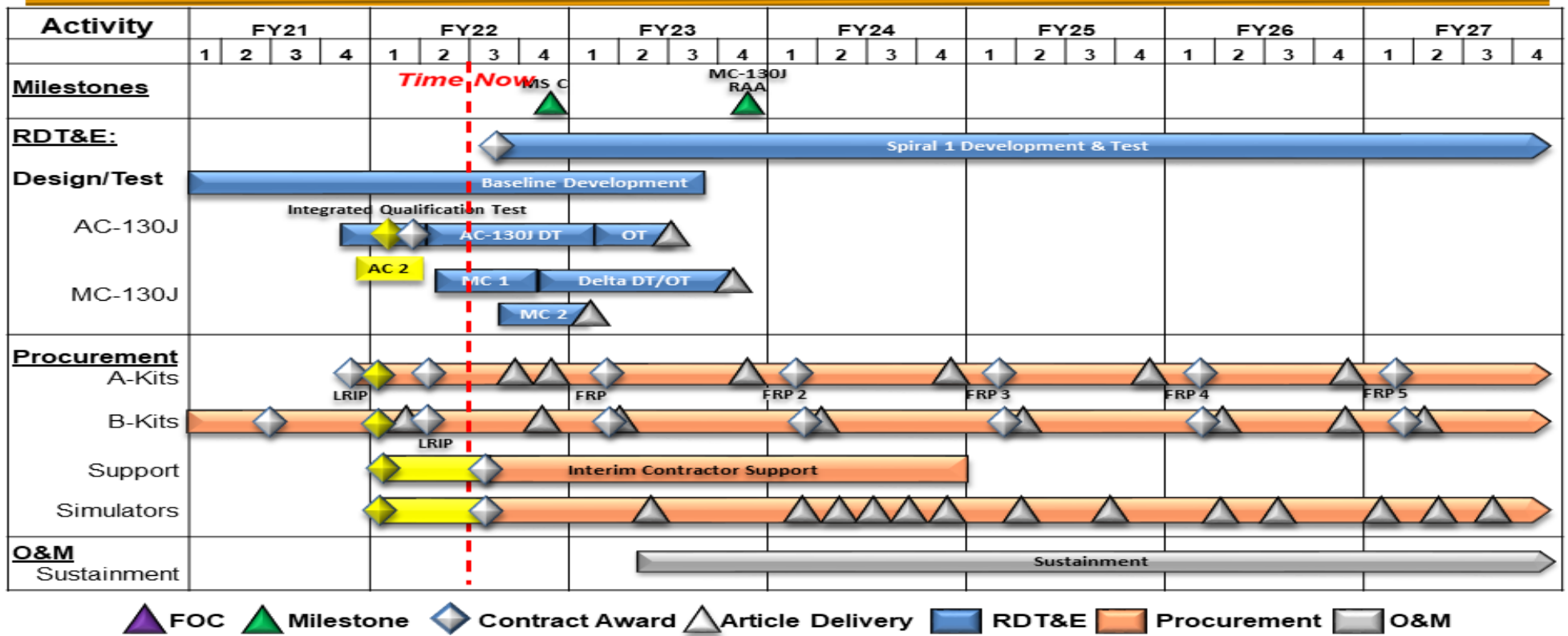
<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Prior Year Funding - Completed Efforts	Various	Various : Various	57.332	-		-		-		-		-	0.000	57.332	-
<b>Subtotal</b>			57.332	-		-		-		-		-	0.000	57.332	N/A

<b>Prior Years</b>	<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			1,449.437	101.503	38.594	46.162	-	46.162	Continuing	Continuing	N/A	

**Remarks**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / Aviation Systems	Project (Number/Name) SF100 / Aviation Systems Advanced Development

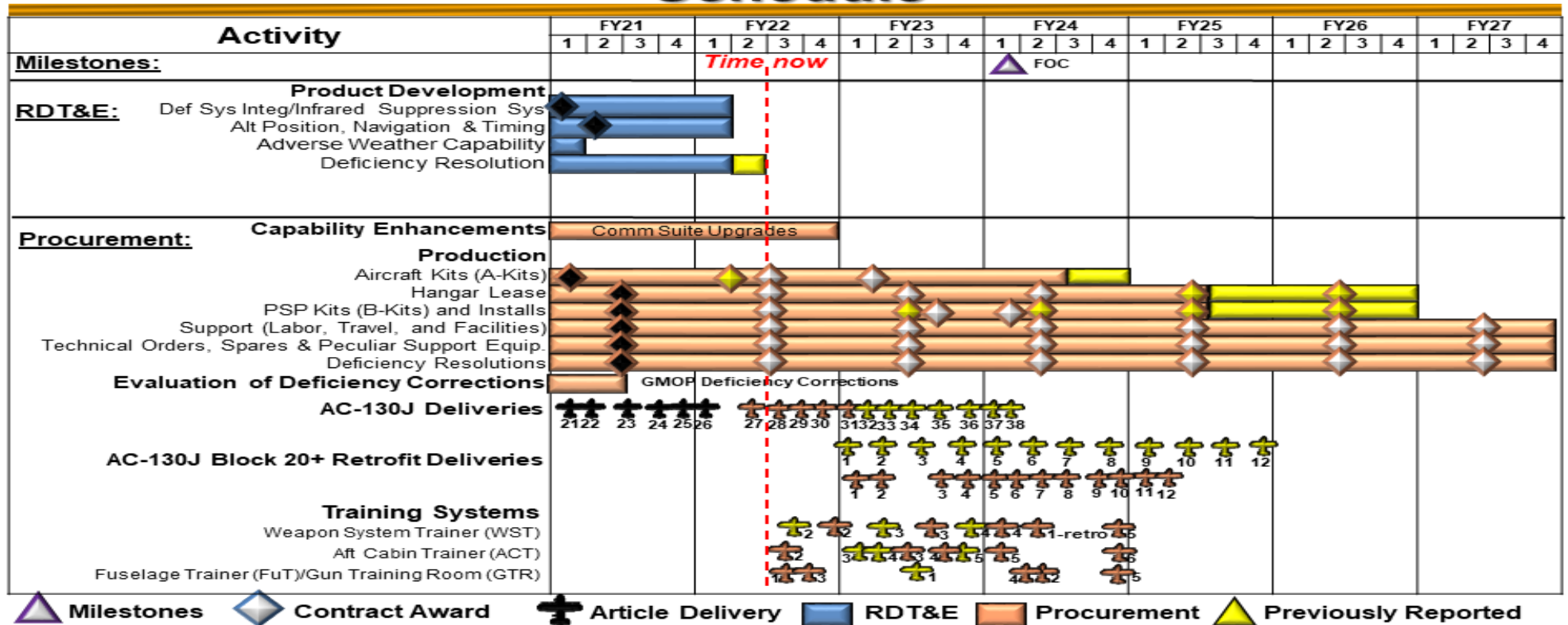
# AC/MC-130J Radio Frequency Countermeasures Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

## AC-130J/Precision Strike Package (PSP) for Special Operations Forces (SOF) Schedule

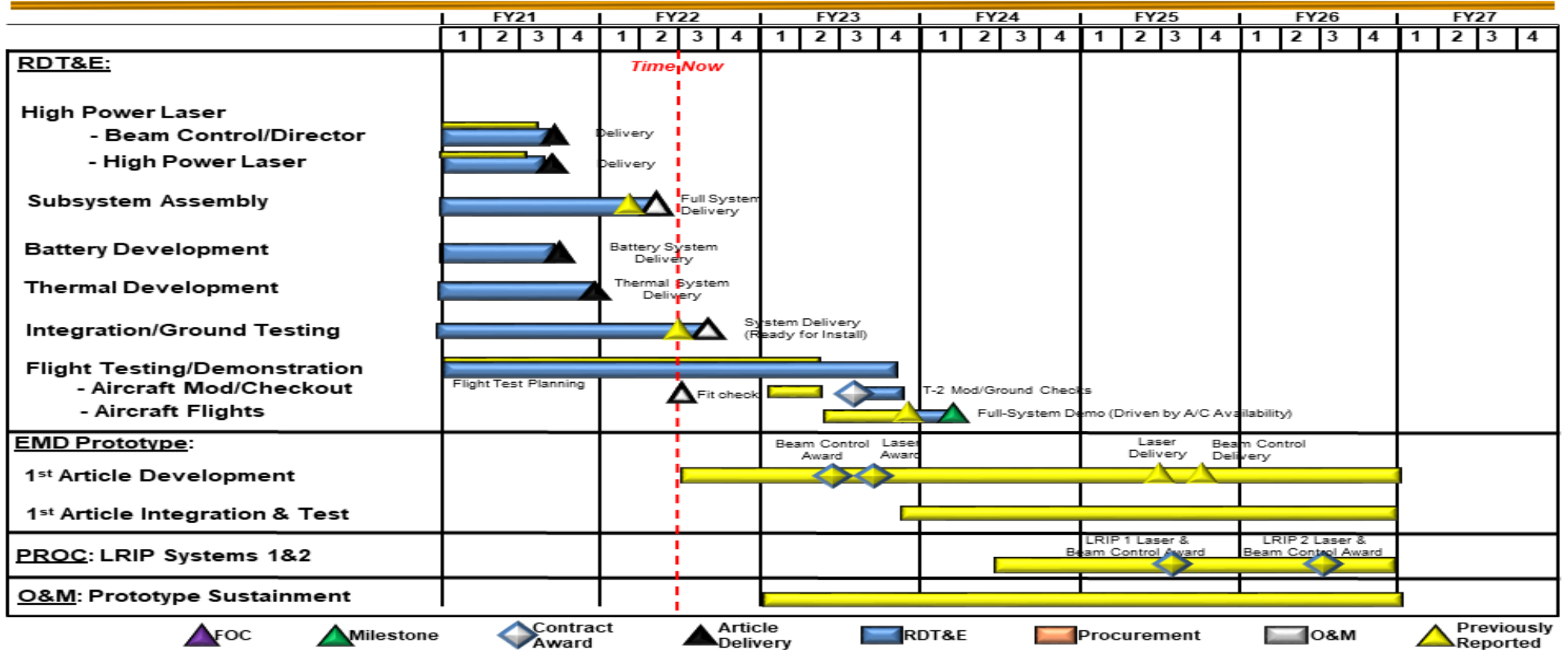


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
SF100 / Aviation Systems Advanced  
Development

# AC-130J High Energy Laser (HEL) Schedule

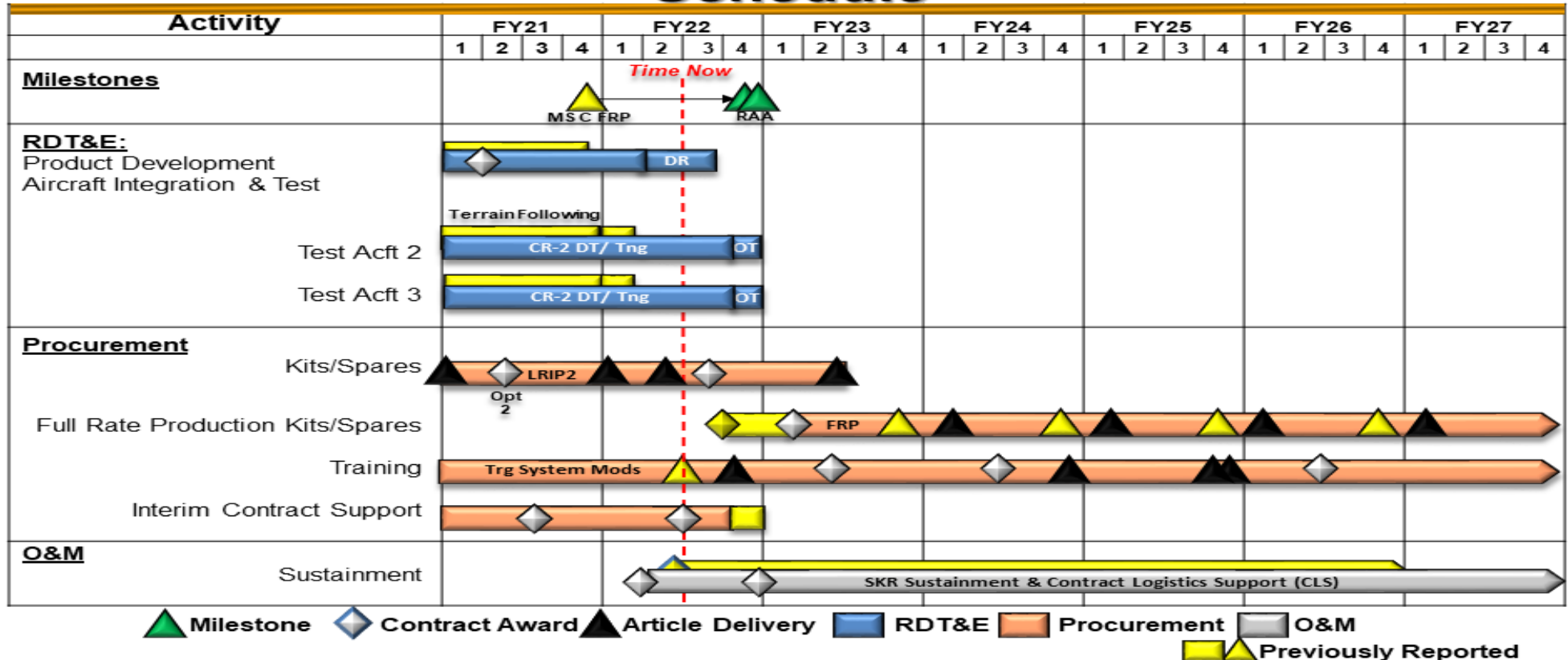


**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command Date: April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development
--	---	---

## C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) Schedule

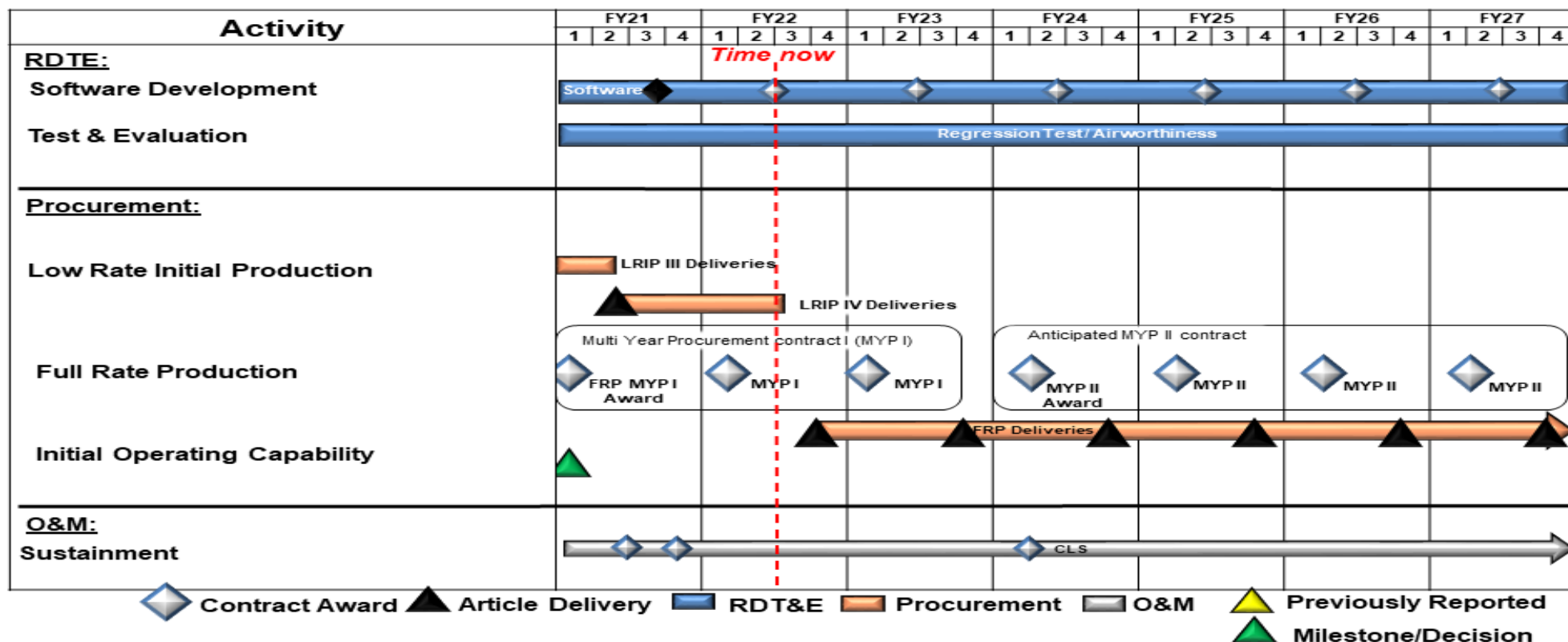


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
SF100 / Aviation Systems Advanced  
Development

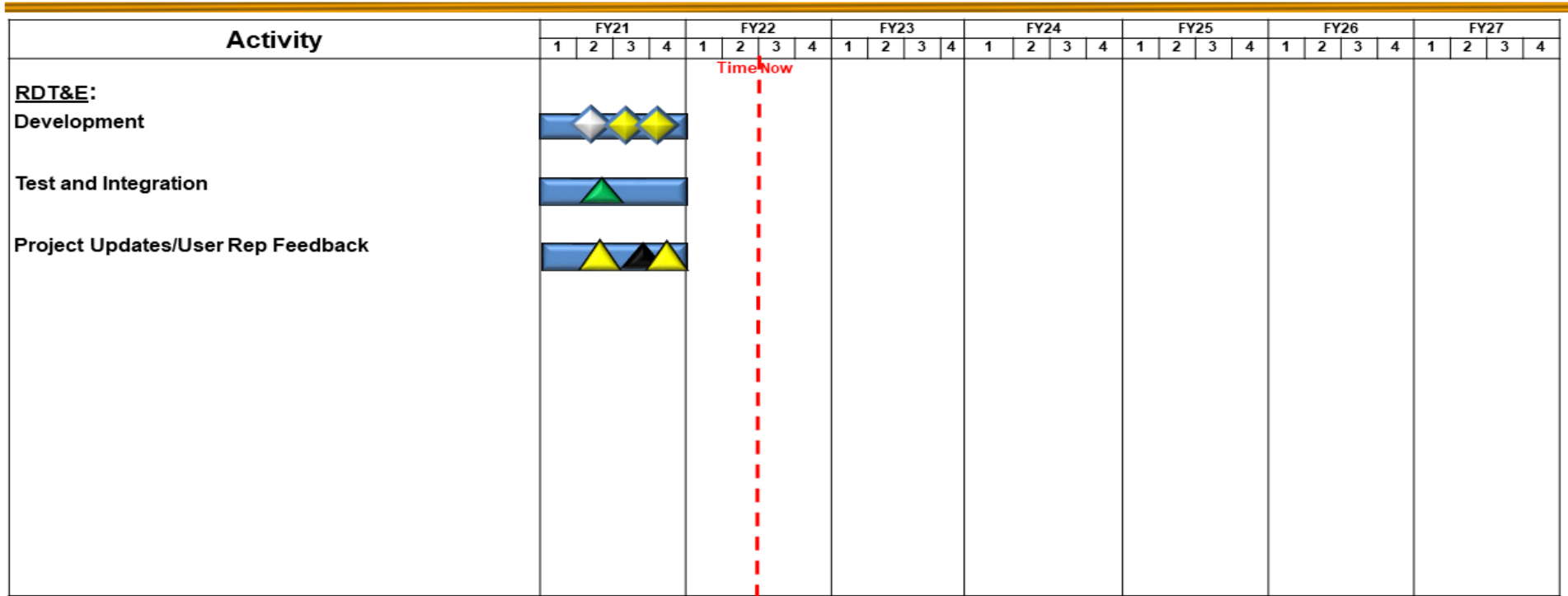
# MH-47/MH-60 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

## Intelligence, Surveillance, and Reconnaissance (ISR) Payload Schedule

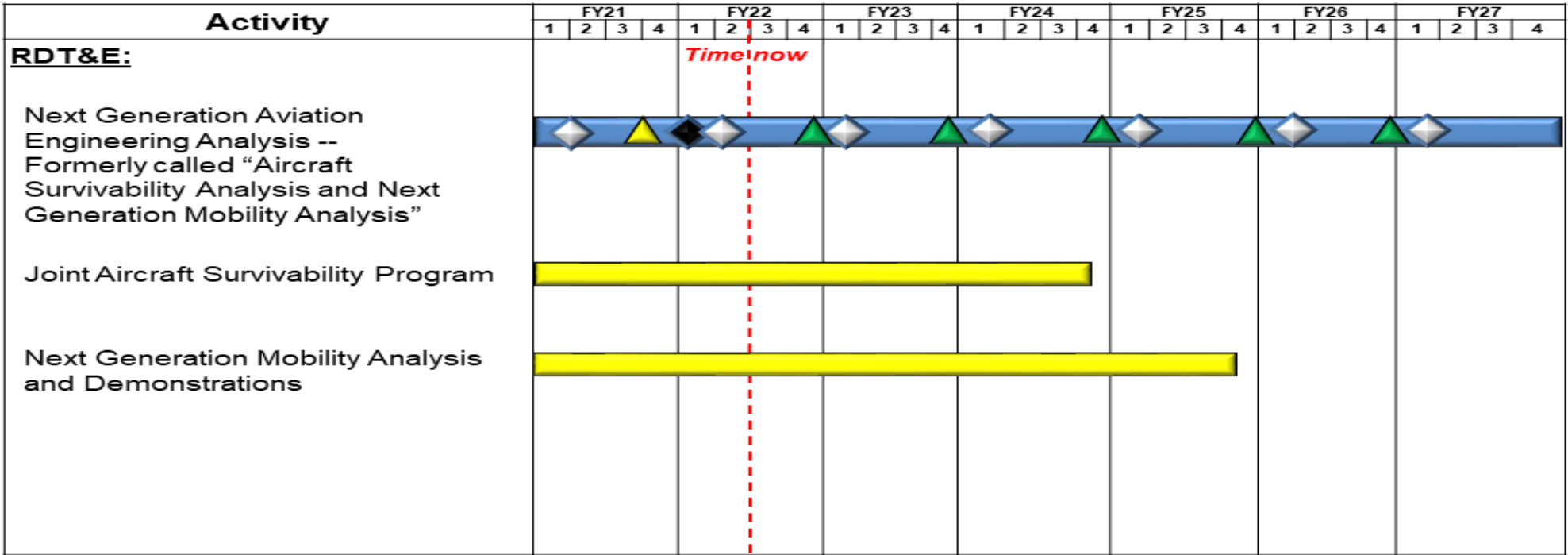




**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

# Aviation Engineering Analysis (AEA) Schedule



▲ Milestone    
 ◆ Contract Award    
 ▲ Article Delivery    
 ■ RDT&E    
 ■ O&M    
 ▲ Previously Reported

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)</b>				
Spiral 1 Development	3	2022	4	2027
Product Development, Integration and Test	1	2021	3	2023
Developmental Test and Operational Test (DT/OT) AC-130J	4	2021	3	2023
DT/OT #1 MC-130J	2	2022	4	2023
<b>Precision Strike Package (PSP) for SOF</b>				
Defensive Systems Product Development	1	2021	2	2022
Alternate Position, Navigation and Timing Product Development	1	2021	2	2022
Adverse Weather Product Development	1	2021	1	2021
Deficiency Resolution Product Development	1	2021	2	2022
<b>PSP High Energy Laser (HEL)</b>				
PSP HEL 60kW Beam Control/Beam Director	1	2021	3	2021
PSP HEL High Power Laser	1	2021	3	2021
PSP HEL Subsystem Assembly	1	2021	2	2022
PSP HEL Battery Development	1	2021	3	2021
PSP HEL Thermal Development	1	2021	4	2021
PSP HEL Integration and Ground Testing	1	2021	3	2022
PSP HEL Flight Testing/Demonstration	1	2021	1	2024
<b>C-130 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR)</b>				
Software Development	1	2021	2	2022
Development/Flight Testing	1	2021	3	2022

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>
--	--	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Operational Testing	4	2022	4	2022
<b><i>MH-60/MH-47 SOF Common TF/TA SKR</i></b>				
Software Development	1	2021	4	2027
Test and Evaluation	1	2021	4	2027
<b><i>Intelligence, Surveillance, and Reconnaissance (ISR) Payload</i></b>				
Development	1	2021	4	2021
Testing and Integration	1	2021	4	2021
Project Update/User Rep Feedback	1	2021	4	2021
<b><i>Aviation Engineering Analysis (AEA)</i></b>				
Next Generation Aviation Engineering Analysis	1	2021	4	2027

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>				<b>Project (Number/Name)</b> SF200 / CV-22			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
SF200: CV-22	64.061	13.011	6.932	11.695	-	11.695	-	9.727	19.064	19.445	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Project MDAP/MAIS Code:** 212

**A. Mission Description and Budget Item Justification**

The CV-22 Osprey is a Special Operations Forces (SOF) variant of the Joint V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long range, high speed, infiltration, exfiltration, and resupply to SOF teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The funding in this project supports integration, design, development, rapid prototyping and test to provide improved capabilities to include, but not limited to: more robust performance in situational awareness; Intelligence; Surveillance; and Reconnaissance (ISR); weapons; SOF communications; avionics; interoperability; defensive/survivability systems; speed and maneuverability; mission deployment and improved reliability and maintainability of the CV-22 platform.

CV-22 SOF Common Terrain Following/Terrain Avoidance (TF/TA) APQ-187 Silent Knight Radar (SKR): Provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infiltration, exfiltration, and resupply of SOF forces. This more sustainable and capable radar replaces the obsolete APQ-186 terrain following/avoidance radar currently integrated on CV-22 aircraft.

CV-22 Block 20 Systems: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to: robust performance in situational awareness; ISR, weapons; SOF communications; avionics; interoperability; defensive/survivability systems; speed and maneuverability; mission deployment; improved reliability and maintainability of the CV platform.

CV-22 Reliability Improvements: Design, integrate, test and validate system, and sub-system, reliability improvement enhancements to meet required aircraft availability and operational requirements. This incremental development will accelerate the fielding and retrofit of system design improvements directly increasing CV-22 fleet readiness and aircraft availability.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> CV-22 SOF Common TF/TA SKR	13.011	4.851	11.695
<b>Description:</b> Provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas for infiltration, exfiltration, and resupply of SOF forces. This more sustainable and capable radar replaces the obsolete APQ-186 Multi-Mode Radar (MMR) currently integrated on CV-22 aircraft. This effort includes development of the CV-22 SOF Common TF/TA SKR Operational Flight Program (OFP) software, and development of CV-22 platform software and hardware to support integration and test.			
<b>FY 2022 Plans:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF200 / CV-22

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continue integration/testing of CV-22 SOF Common TF/TA SKR OFP. <b>FY 2023 Plans:</b> Completes integration/testing of CV-22 SOF Common TF/TAR SKR OFP. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$6.844 million due to maintain and operate a dedicated CV-22 test aircraft for the SKR integration and OFP flight test program.			
<b>Title:</b> CV-22 Reliability Improvements <b>Description:</b> Improves platform reliability and maintainability to meet fleet aircraft availability requirements. Efforts include design and re-design enhancements, and acceleration of field integration. <b>FY 2022 Plans:</b> Conduct and complete Non-Recurring Engineering (NRE) required to accelerate improved Block 3 Engine Turbine upgrades. <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$2.081 million is due to completing NRE to accelerate improved Block 3 Engine Turbine upgrades.	-	2.081	-
<b>Accomplishments/Planned Programs Subtotals</b>	13.011	6.932	11.695

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/1000CV22: CV-22 SOF Modification	58.033	46.572	75.629	-	75.629	113.267	107.335	88.225	86.931	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

When possible, rapid prototyping will be incorporated in the acquisition strategies below to develop, demonstrate, and evaluate residual operational capabilities.

The SKR was developed by the United States Special Operations Command (USSOCOM) to provide a SOF Common TF/TA capability for SOF aircraft. The SKR replaces the obsolete APQ-186 TF/TA multimode radar on the CV-22. The acquisition strategy for the CV-22 SOF Common TF/TA SKR program is to procure radar units and radar software modifications through the USSOCOM SKR program management office, buy aircraft modification kits, and integrate SKR into CV-22 aircraft using a mixture of both sole source and competitive contracts.

The CV-22 Reliability Improvement projects will consist of a mix of competitive and sole-source awards.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF200 / CV-22
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CV-22 SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) - Operational Flight Program (OFP) Development	C/CPFF	Various : Various	32.995	6.087	Nov 2020	2.571	Jan 2022	1.000	Feb 2023	-		1.000	Continuing	Continuing	-
CV-22 SOF Common TF/TA SKR- Integration	C/CPFF	Various : Various	25.942	3.982	Nov 2020	1.310	Dec 2021	1.685	Feb 2023	-		1.685	Continuing	Continuing	-
CV-22 Block 20 Systems	Various	Various : Various	0.337	-		-		-		-		-	0.000	0.337	-
CV-22 Reliability Improvements	C/Various	Various : Various	-	-		1.081	Jan 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			59.274	10.069		4.962		2.685		-		2.685	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CV-22 SOF Common TF/TA SKR - OFP	C/CPFF	Various : Various	2.582	2.412	Nov 2020	0.776	Dec 2021	1.200	Feb 2023	-		1.200	Continuing	Continuing	-
CV-22 SOF Common TF/TA SKR- Integration	C/CPFF	Various : Various	2.205	0.530	Nov 2020	0.194	Dec 2021	7.810	Feb 2023	-		7.810	Continuing	Continuing	-
CV-22 Reliability Improvements Test and Evaluation	C/Various	Various : Various	-	-		1.000	Jan 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			4.787	2.942		1.970		9.010		-		9.010	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		64.061	13.011	6.932	11.695	-	11.695	Continuing	Continuing	N/A

**Remarks**

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

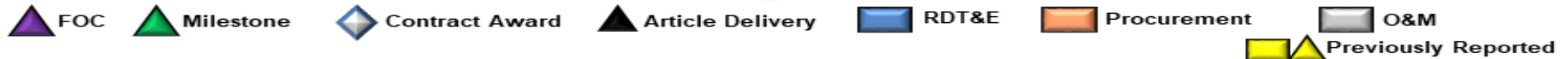
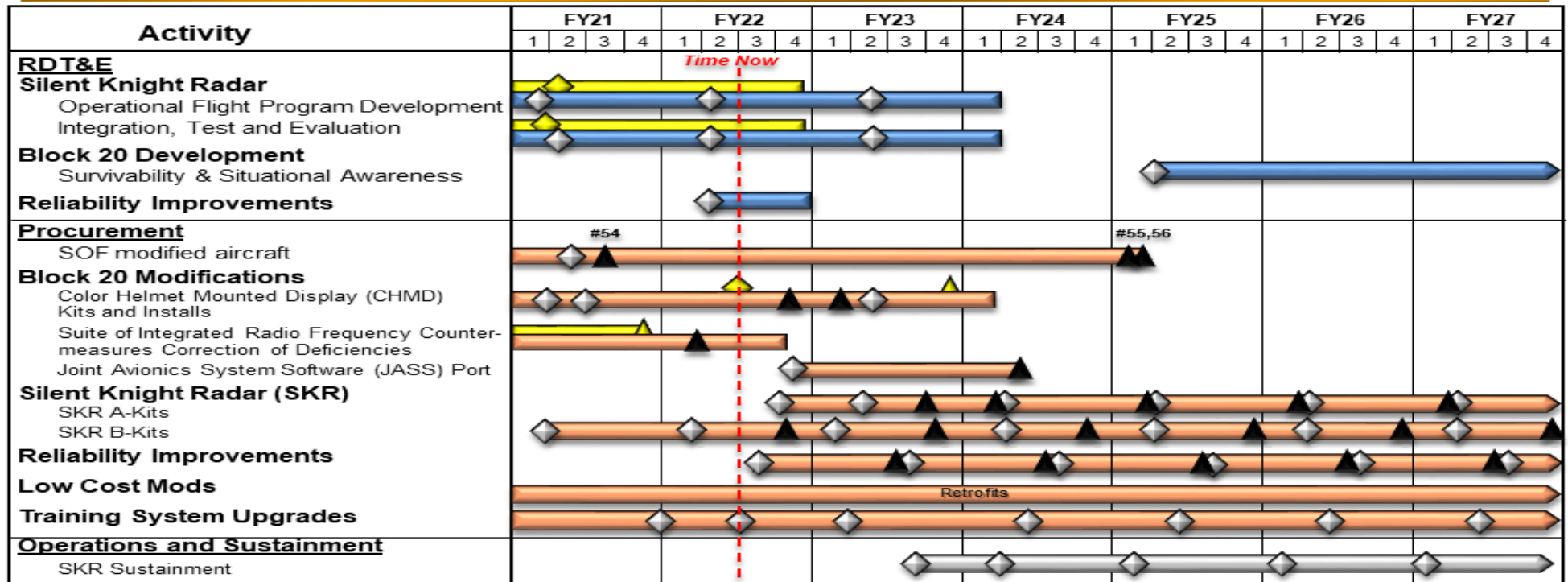
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
SF200 / CV-22

# CV-22 Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF200 / CV-22
--	--	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>CV-22</b>				
SOF Common Terrain Following/Terrain Avoidance (TF/TA) Silent Knight Radar (SKR) - Operational Flight Program (OFP) Development	1	2021	1	2024
SOF Common TF/TA SKR - Radar Integration, Test & Evaluation	1	2021	1	2024
Block 20 Survivability & Situational Awareness	1	2025	4	2027
Reliability Improvements Test and Evaluation	2	2022	4	2022



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF300 / Armed Overwatch/Targeting
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
SF300: Armed Overwatch/Targeting	0.000	24.088	22.952	1.200	-	1.200	0.800	-	-	-	0.000	49.040
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Armed Overwatch provides Special Operations Forces (SOF) with crewed deployable, affordable, and sustainable aircraft systems capable of executing Close Air Support (CAS), Precision Strike, and Armed Intelligence, Surveillance & Reconnaissance (Armed ISR) requirements in austere and permissive environments for use in Irregular Warfare operations to align with the National Defense Strategy priorities. The funding in this project supports integration and testing of SOF-unique capabilities and aircraft certification efforts.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Armed Overwatch/Targeting	24.088	22.952	1.200
<b>Description:</b> The funding in this project supports integration and testing of SOF-unique capabilities and aircraft certification efforts.			
<b>FY 2022 Plans:</b> Initiate integration and testing of SOF-unique capabilities and aircraft certification efforts.			
<b>FY 2023 Plans:</b> Continues integration, testing, and aircraft certification efforts and conducts Operational Test and Evaluation (OT&E) prior to Full Rate Production award.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$21.752 million is due to the majority of certification and verification testing activities being completed with FY 2022 Research, Development, Test, and Evaluation funds.			
<b>Accomplishments/Planned Programs Subtotals</b>	24.088	22.952	1.200

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• PROC/0201ARMOWT: Armed Overwatch/Targeting	21.000	166.000	246.000	-	246.000	223.000	220.792	229.234	249.567	Continuing	Continuing

**Remarks**

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160403BB / <i>Aviation Systems</i>	SF300 / <i>Armed Overwatch/Targeting</i>

**D. Acquisition Strategy**

Armed Overwatch/Targeting: These technologies will be pursued through industry partners via rapid prototyping, transitioning to the Major Capability Acquisition pathway at Milestone C. Flight demonstrations were conducted in FY 2021 and results were used to determine that a solicitation for a follow-on production contract is in the best interest of the Government. Production contract to be awarded to the industry partner with the best value proposal in the 4th quarter of FY 2022 with certification and verification testing to begin immediately following award.

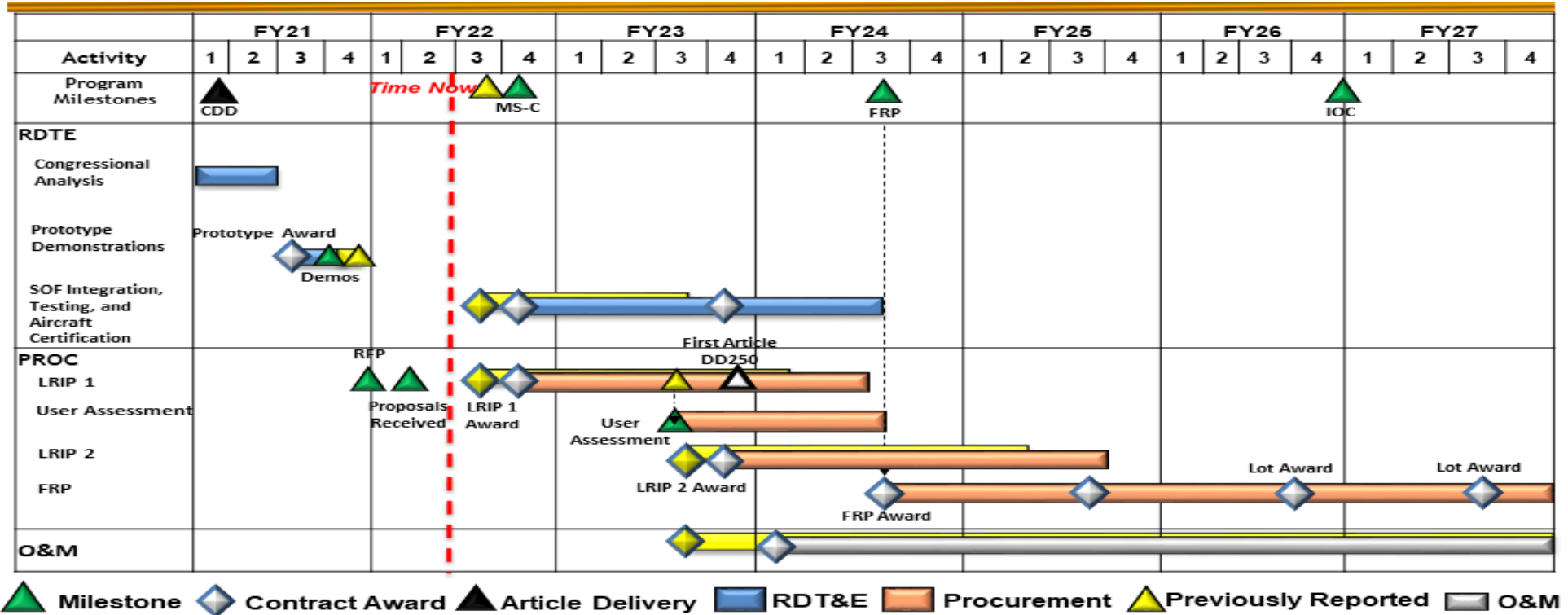


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
SF300 / Armed Overwatch/Targeting

# Armed Overwatch Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF300 / <i>Armed Overwatch/Targeting</i>
--	--	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Armed Overwatch/Targeting</i></b>				
Congressional Analysis	1	2021	2	2021
Prototype Testing/Demonstration	3	2021	4	2021
SOF Integration, Testing, and Aircraft Certification	4	2022	3	2024

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems				<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S750: Mission Training and Preparation Systems	51.441	9.272	10.227	13.848	-	13.848	17.430	16.804	13.530	13.800	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project funds the definition, design, development, prototyping, integration, and testing of Mission Training and Preparation Systems (MTPS) to support training, avoid obsolescence, and maintain simulator concurrency with weapon system configurations; support mission planning and rehearsal systems enhancements required to meet Special Operations Forces (SOF)-unique mission requirements and correct deficiencies identified in previous testing; and support mission planning and rehearsal capabilities in current MTPS. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse SOF training systems.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Special Operations Mission Planning and Execution (SOMPE)	9.272	10.227	10.941
<p><b>Description:</b> The SOMPE project develops, integrates, tests, and validates software enhancements required to meet SOF-unique requirements for, and correct deficiencies to, mission planning, preview, and execution software tools to support all phases of SOF operations from deliberate to time-critical. SOMPE automates time-sensitive planning activities and provides enhanced situational awareness during mission execution. SOMPE provides the interoperable environment for SOF adaptive planning to integrate global operations including, but not limited to, precision strike software, digital navigation, and Unmanned Aerial Systems (UAS) command and control. This project also provides the integration of SOMPE with multi-dimensional visualization systems, providing immersive mission rehearsal in minimal timeframes from the SOMPE mission plan. SOMPE is embedded in the United States Special Operations Command (USSOCOM) Headquarters, Theater Special Operations Commands (TSOC), Joint Special Operations Task Forces, Joint Special Operations Aviation Components, SOF warfighters, and SOF warfighter platforms.</p> <p><b>FY 2022 Plans:</b> Continue development of software applications to address increased SOF-unique aviation, ground and maritime mission planning requirements; data transfer software from mission planning systems to SOF helicopters, airplanes, and simulator rehearsal systems; and automated performance models and performance prediction software. Continue updates to mission planning, data transfer, and performance software. Continue development of software applications for smaller mobile computer devices (tablets, smart phones, etc.)</p> <p><b>FY 2023 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>The SOMPE program is transitioning to the Software Acquisition Pathway, defined in DoDI 5000.87 and will converge independently developed products by leveraging the agile ecosystem and environment of the TAK Product Center to accelerate development of incremental releases of software with direct user input.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.714 million is to support convergence of the TAK software across the air, land, and sea battlespace; where tactical situational awareness is critical to the Military Decision-Making Process.</p>			
<p><b>Title:</b> Training Transformation Simulator Block Upgrade-Fixed Wing (SBUDF)</p> <p><b>Description:</b> The SBUDF program develops and integrates training innovation and transformation solutions across the Air Force Special Operations Command (AFSOC) fixed-wing training device portfolio, to include AC-130J, MC-130J, CV-22, U-28, and C-146. These efforts include further developing and integrating augmented reality, virtual reality, and mixed reality technology and applying the technology to SOF-unique missions and platforms in support of combat readiness and SOF operator mission qualification. These initiatives are not intended to replace existing traditional AFSOC training devices and full motion simulators, but will rather mitigate current training limitations as well as enhance and complement existing training capabilities. This program will also support the development of advanced instructor and student feedback systems and artificial intelligence capabilities to increase the fidelity, quality, and efficiency of the AFSOC training pipeline.</p> <p><b>FY 2023 Plans:</b> Initiates the SBUDF training innovation and transformation program with the development of AC-130J aircrew and CV-22 aircrew and maintenance virtual and augmented reality mission training devices.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$2.907 million is develop virtual training environments by SBUDF in FY 2023.</p>	-	-	2.907
<b>Accomplishments/Planned Programs Subtotals</b>	9.272	10.227	13.848

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

In accordance with DoDI 5000.87, the SOMPE project will continue a transformation to execute in accordance with the Software Acquisition Pathway. Execution uses a combination of reimbursable working capital funds for technical leadership of the DevSecOps environment; and contract awards. Contracts will leverage existing sole source awards for Special Operations-Peculiar capability development; potential Commercial Service Offerings for Commercial Off the Shelf Software; and a combination of existing Science Engineering Technology and Acquisition (SETA) contracts and full and open competition for software development, integration, test,

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> S750 / <i>Mission Training and Preparation Systems</i>

fielding, and sustainment. The multiple contracts and Government working capital organizations enable the Program to continuously prioritize and balance work across the product mission areas to meet the needs of users as we shift to a new paradigm of a tighter feedback loop under the Software Acquisition Pathway.

The SBUDF program will utilize Naval Surface Warfare Center (NSWC) Dahlgren Division as the Government lead system integrator, while incorporating commercial off-the-shelf hardware/software solutions and competitive as well as sole source contracts to support spiral development of training transformation initiatives.



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Special Operations Mission Planning and Execution (SOMPE) Software Development, Security, Operations (DevSecOps)	Various	Various : Various	41.512	7.361	Jan 2021	8.204	Jan 2022	8.971	Jan 2023	-		8.971	Continuing	Continuing	-
Augmented Reality/Virtual Reality Device Spiral Development Simulator Upgrade (SBUD)	Various	Various : Various	-	-		-		2.907	Mar 2023	-		2.907	Continuing	Continuing	-
<b>Subtotal</b>			41.512	7.361		8.204		11.878		-		11.878	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOMPE Software	MIPR	Special Operations Mission Planning Office : Various	3.111	0.375	Feb 2021	0.386	Feb 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			3.111	0.375		0.386		-		-		-	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOMPE Software	C/CPFF	TBD : Various	6.818	1.536	Jan 2021	1.637	Jan 2022	1.970	Nov 2022	-		1.970	Continuing	Continuing	-
<b>Subtotal</b>			6.818	1.536		1.637		1.970		-		1.970	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
	<b>Project Cost Totals</b>		51.441	9.272	10.227	13.848	-	13.848	Continuing	Continuing

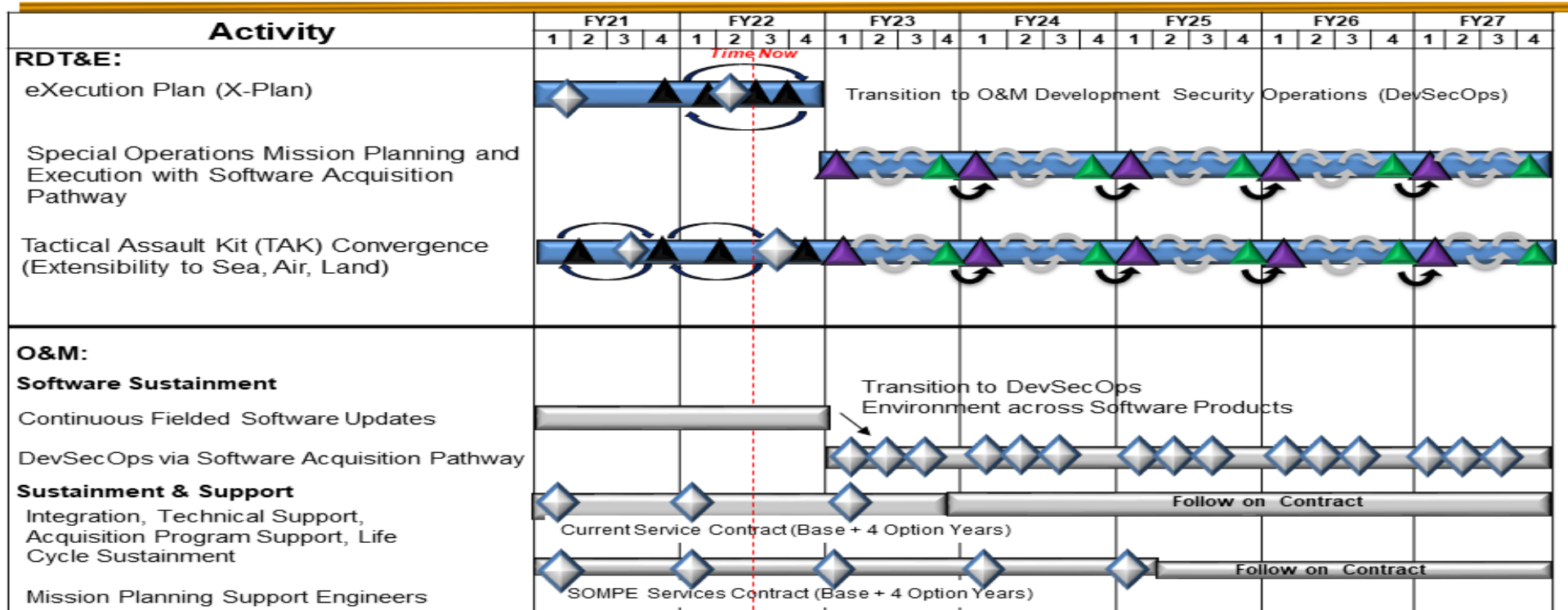


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
S750 / Mission Training and Preparation Systems

# Special Operations Mission Planning and Execution (SOMPE) Schedule



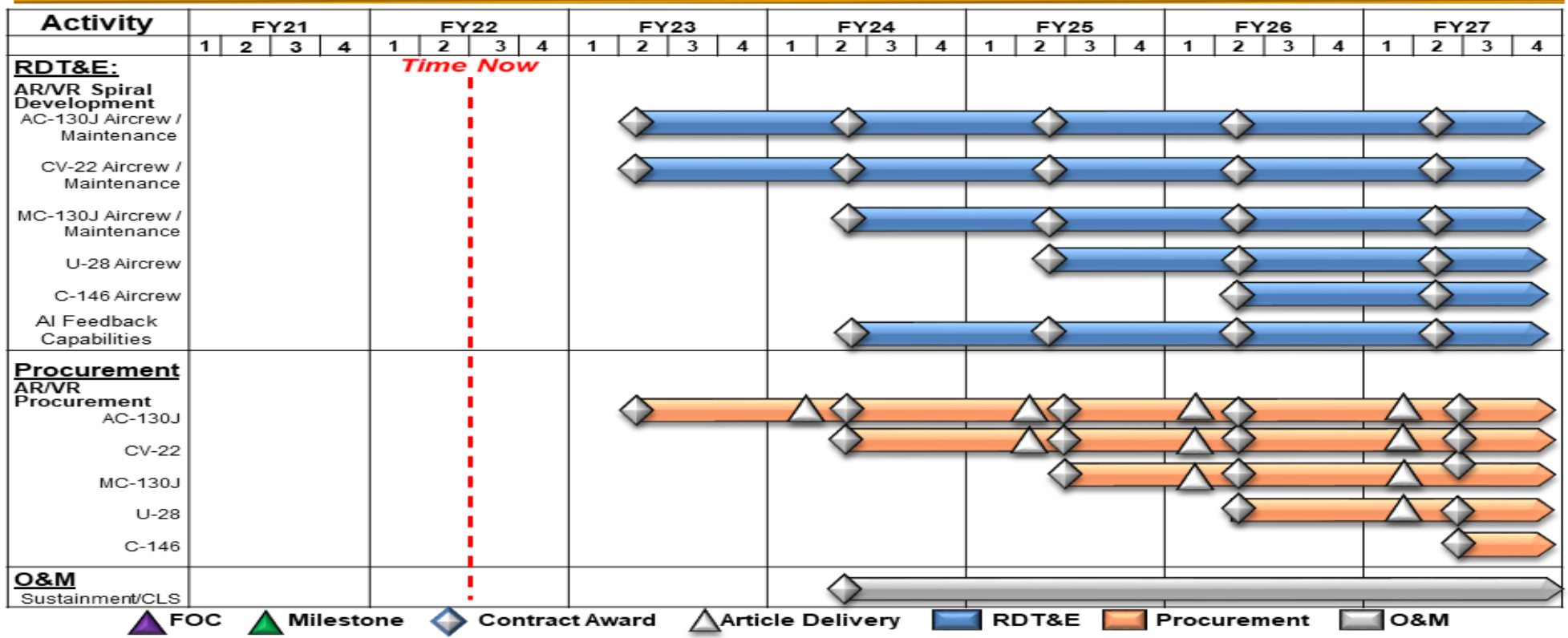
◆ Award   
 ▲ Capability Needs Statement   
 ▲ Annual Value Assessment   
 ▲ Capability Release   
 ■ RDT&E   
 ■ O&M

Note: Schedule has been updated to align with DoDI 5000.87 Software Acquisition Pathway requirements for Agile Software Development that includes annual Capability Needs Statements and Value Assessments to inform software development for SOCOM's Mission Planning Systems.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / Aviation Systems	Project (Number/Name) S750 / Mission Training and Preparation Systems

# Training Transformation Simulator Block Upgrade-Fixed Wing (SBUDF) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Special Operations Mission Planning and Execution (SOMPE)</b>				
eXecution Plan (XPlan)	1	2021	4	2022
SOMPE with Software Acquisition Pathway	1	2023	4	2027
Tactical Assault Kit (TAK) Convergence (Extensibility to Sea, Air, Land)	1	2021	4	2027
<b>Training Transformation Simulator Block Upgrade - Fixed Wing (SBUDF)</b>				
Augmented Reality/Virtual Reality (AR/VR) Device Spiral Development AC-130J Aircrew / Maintenance	2	2023	4	2027
AR/VR Device Spiral Development CV-22 Aircrew / Maintenance	2	2023	4	2027
AR/VR Device Spiral Development MC-130J Aircrew / Maintenance	2	2024	4	2027
AR/VR Device Spiral Development U-28 Aircrew	2	2025	4	2027
AR/VR Device Spiral Development C-146 Aircrew	2	2026	4	2027
Artificial Intelligence Feedback Capabilities	2	2024	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems				<b>Project (Number/Name)</b> S875 / AC/MC-130J			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S875: AC/MC-130J	95.574	51.783	52.045	40.757	-	40.757	65.496	63.116	17.184	17.528	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The AC/MC-130J project funds core Special Operations Forces (SOF)-unique modifications to replace aging/retired AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II aircraft. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the Precision Strike Package (PSP) to achieve the AC-130J configuration. The AC-130J aircraft will provide close air support, air interdiction, and armed reconnaissance capability. The 14 MC-130E Combat Talon I, 23 MC-130P Combat Shadow, and 24 MC-130H Combat Talon II airframes will be replaced by MC-130J Commando II aircraft with SOF mission modifications. The MC-130J Commando II aircraft with SOF mission modifications provide clandestine single or multi-ship low-level aerial refueling for special operations helicopters and CV-22 aircraft; and conduct airdrops of leaflets, small special operations teams, resupply bundles, and combat rubber raiding craft. The Air Force procures and fields the basic aircraft, common support equipment, and trainers for the United States Special Operations Command (USSOCOM). Incremental upgrade and agile software development approaches will be used to integrate SOF capabilities onto the aircraft and training systems. SOF capabilities include, but are not limited to: Airborne Mission Networking (AbMN); data fusion; threat detection and avoidance; integrated Terrain Following/Terrain Avoidance (TF/TA); electronic warfare and embedded training. Integrating and automating SOF mission systems that deliver these capabilities is critical to fielding SOF-capable AC/MC-130J aircraft to recapitalize Air Force Special Operations Command's legacy C-130 fleet.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> MC-130J AbMN	2.590	-	-
<b>Description:</b> The AbMN provides aircrew and mission personnel aboard the MC-130J aircraft, with the ability to send and receive mission-critical data to/from tactical and operational nodes in the battlespace. Capabilities include, but are not limited to, secure Line-of-Sight (LOS)/Beyond Line-of-Sight (BLOS) voice/data communications, friendly force identification, mission tracking, threat identification, full-motion video, collaboration, chat, e-mail, integrated tactical map and data links. The AbMN enables SOF to streamline command and control, improve situational awareness, and reduce operational risk through real time exchange of digital information among aircraft, SOF components, and other tactical and operational nodes.			
<b>Title:</b> Integrated Tactical Mission Systems (ITMS)	49.193	52.045	40.757
<b>Description:</b> The ITMS program increases operational crew performance and aircraft survivability by integrating the AC/MC-130J green aircraft and multiple SOF mission systems as an interoperable system-of-systems. Automated software capabilities will be developed, integrated, and tested with SOF-peculiar and green aircraft flight information, displays, and controls through the Special Mission Systems (SMS) suite. By increasing system-of-systems data interoperability through an Open Mission Systems (OMS) compliant Modular Open System Architecture (MOSA), an agile software development infrastructure will be employed to integrate multiple subsystems and continuously deliver automated software capabilities. Capabilities include, but are not limited			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S875 / AC/MC-130J

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>to: automated route replanning; tactical flight management; integrated aircraft defensive systems; defensive countermeasures; and embedded training. The NextGen Special Mission Processor (SMP) resolves current diminishing manufacturing sources issues with a MOSA compliant design to perform central processing for ITMS software. The ITMS enables dynamic operations with integrated real-time information, automation, and decision making data for safe TF/TA flight and mission execution (MC-130J aircraft) and seamless employment of the Precision Strike Package (PSP) on AC-130J aircraft.</p> <p><b>FY 2022 Plans:</b> Continue to identify, prototype, and demonstrate modern OMS capabilities of: Pre-mission software; common roll-on roll-off payload interfaces; enhanced cybersecurity management; and AC-130J weapon system planning and management. Continue capability maturation of production and fielded software services through Development, Security, and Operations (DevSecOps) supported by a cloud-hosted software integration and test environment. Continue development, demonstration, and test of common interfaces to integrate legacy, current, and future mission systems into an inter-operable system architecture. Continue Tactical Flight Management System (TFMS), Automated Route Replanner (ARR), and Defensive Countermeasures (DCM) capability development and demonstration. Continue capability replication, performance, and test with the AC-130J PSP and Battle Management System (BMS) software. Continue the MC-130J Tactical Map enhancements. Complete the NextGen SMP qualification testing, technical data updates, and perform correction of deficiencies.</p> <p><b>FY 2023 Plans:</b> Continues to identify, prototype, demonstrate, and enhance modern OMS capabilities of: Pre-mission software; common payload interfaces; enhanced cybersecurity management software; and AC-130J weapons planning and management system. Continues capability maturation of production and fielded software services through DevSecOps supported by a cloud-hosted software integration and test environment. Continues development, demonstration, and test of common interfaces to integrate legacy, current, and future mission systems into an inter-operable systems architecture. Releases the MC-130J Tactical Map, TFMS and ARR minimum viable products and continues software enhancements. Continues TFMS and DCM capability development, integration, and demonstration for MC-130J with common attributes with AC-130J. Continues capability demonstration, and DevSecOps software enhancements for MC-130J avionics and common applications of BMS in support of multi-role aircraft capabilities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$11.288 million is due to completion of Next Gen SMP qualification testing and emerging critical Command requirements.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	51.783	52.045	40.757

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S875 / AC/MC-130J

**C. Other Program Funding Summary (\$ in Millions)**

Line Item	FY 2021	FY 2022	FY 2023	FY 2023	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cost To	
			Base	OCO	Total					Complete	Total Cost
• PROC/2012C130J: AC/MC-130J	150.883	205.216	225.569	-	225.569	319.754	310.229	341.280	388.428	Continuing	Continuing
• PROC/1202PSP: Precision Strike Package	233.111	165.224	57.450	-	57.450	108.497	111.346	107.500	65.473	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

As a core strategy, rapid prototyping has been incorporated in the acquisition strategies below to develop, demonstrate and evaluate residual operational capabilities.

MC-130J AbMN: Award sole source Cost-Plus-Fixed-Fee contract to develop a battlespace information exchange system for the MC-130J consisting of Government/Commercial-off-the-shelf communications and computing hardware and Government/developmental software. This approach leverages portions of the AC-130J gunship infrastructure design applicable to the MC-130J. After completing developmental and operational flight testing, award a sole source contract for Low Rate Initial Production (LRIP) followed by a competitive Firm-Fixed Price (FFP) contract for production, aircraft integration, and fielding.

ITMS: Award two sole source contracts to key prime integrators to develop and maintain an open mission system compliant MOSA, integrate legacy subsystems into the common architecture, support government on-boarding of 3rd party capabilities, and modernize software services through DevSecOps. Perform operationally driven rapid prototyping and demonstrations to evaluate new technology for system integration while informing changes to tactics, techniques, and procedures. Government lead development of virtual environment to enable collaborative integration of modular software services procured through competitive, sole source contracts, and use of open mission system compliant standards for hardware and software architecture, software, services, and future subsystems. Perform combined government and contractor integration, lab, and flight development/operational testing.

The U.S. Air Force procures the basic AC-130J aircraft under the HC/MC-130J Recapitalization procurement program. The USSOCOM will fund development, integration, and testing of capability enhancements for SOF-unique mission equipment using an incremental acquisition strategy. Multiple contract awards.



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S875 / AC/MC-130J
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MC-130J Airborne Mission Networking (AbMN)	C/CPFF	Sierra Nevada Corporation : Centennial, CO	22.022	1.190	Dec 2020	-		-		-		-	0.000	23.212	-
Integrated Tactical Mission System (ITMS) - AC/MC-130J Systems Interoperability & Tactical Map Enhancements	C/Various	Sierra Nevada Corporation : Nevada	45.034	2.980	Dec 2020	5.374	Dec 2021	5.257	Dec 2022	-		5.257	Continuing	Continuing	-
ITMS - Open Mission System (OMS) Capabilities	C/Various	Various : Various	6.243	5.283	Nov 2020	3.762	Dec 2021	5.750	Dec 2022	-		5.750	Continuing	Continuing	-
ITMS - MC-130J Software Capability Development	C/CPFF	Lockheed Martin Aeronautics : Marietta	5.752	10.320	Apr 2021	11.150	Nov 2021	10.566	Dec 2022	-		10.566	Continuing	Continuing	-
ITMS - AC-130J Software Capability Development	C/Various	Various : Various	-	4.800	May 2021	8.353	Mar 2022	-		-		-	0.000	13.153	-
ITMS - Agile Software Framework Dev & Test	C/Various	Various : Various	-	4.965	Jan 2021	6.986	Mar 2022	6.830	Mar 2023	-		6.830	Continuing	Continuing	-
ITMS - NextGen Special Mission Processor (SMP) Development, Integration & Test	C/Various	Various : Various	8.219	8.888	Dec 2020	1.075	Dec 2021	-		-		-	0.000	18.182	-
<b>Subtotal</b>			87.270	38.426		36.700		28.403		-		28.403	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Integrated Tactical Mission System (ITMS) - Support	C/Various	Various : Various	2.249	3.142	Mar 2021	3.494	Mar 2022	3.650	Mar 2023	-		3.650	Continuing	Continuing	-
<b>Subtotal</b>			2.249	3.142		3.494		3.650		-		3.650	Continuing	Continuing	N/A

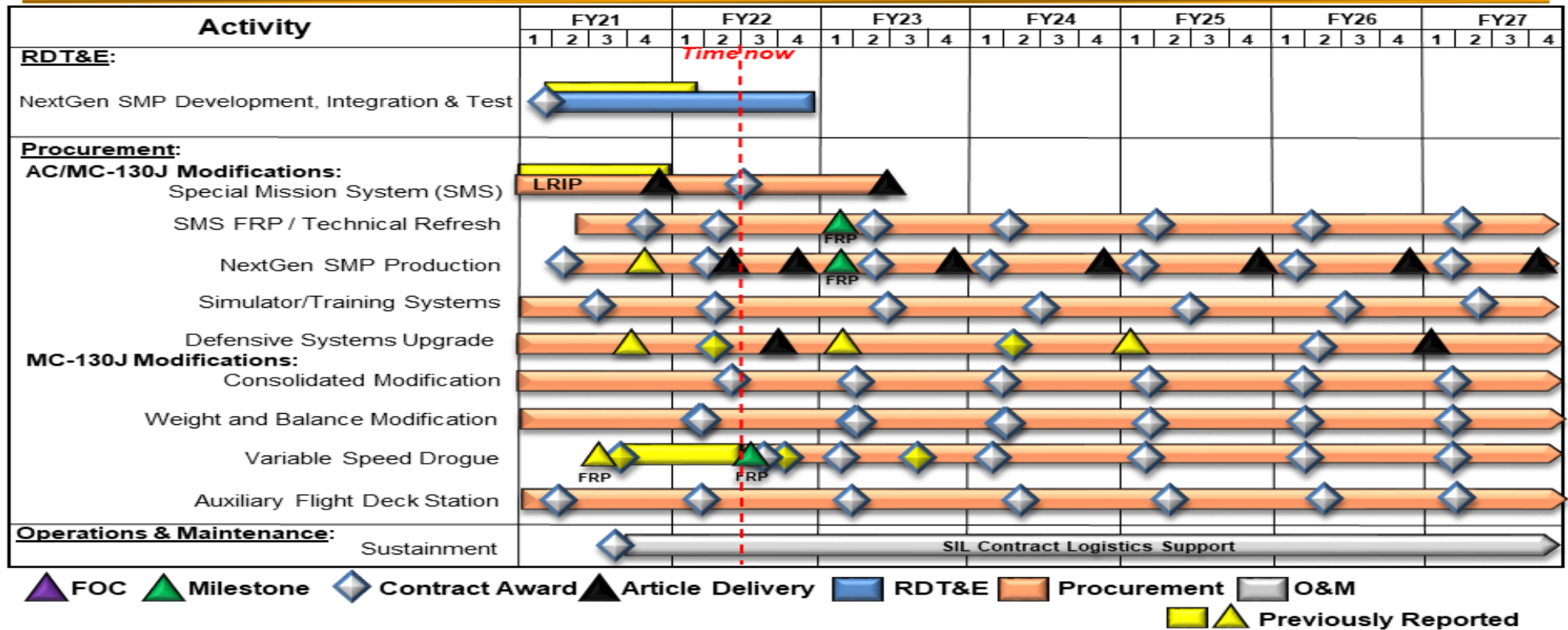


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
S875 / AC/MC-130J

## Common AC/MC-130J Mission Systems Schedule

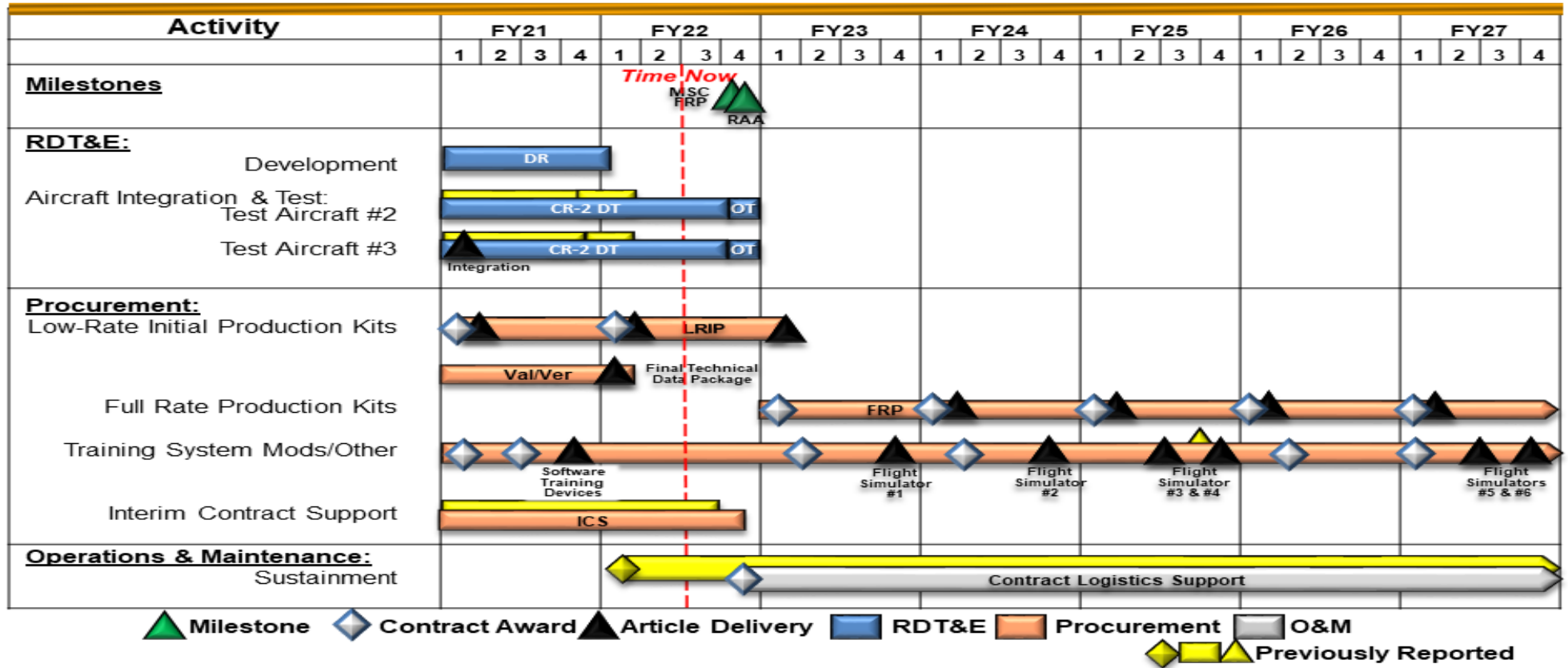


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
S875 / AC/MC-130J

# Airborne Mission Networking (AbMN) Schedule

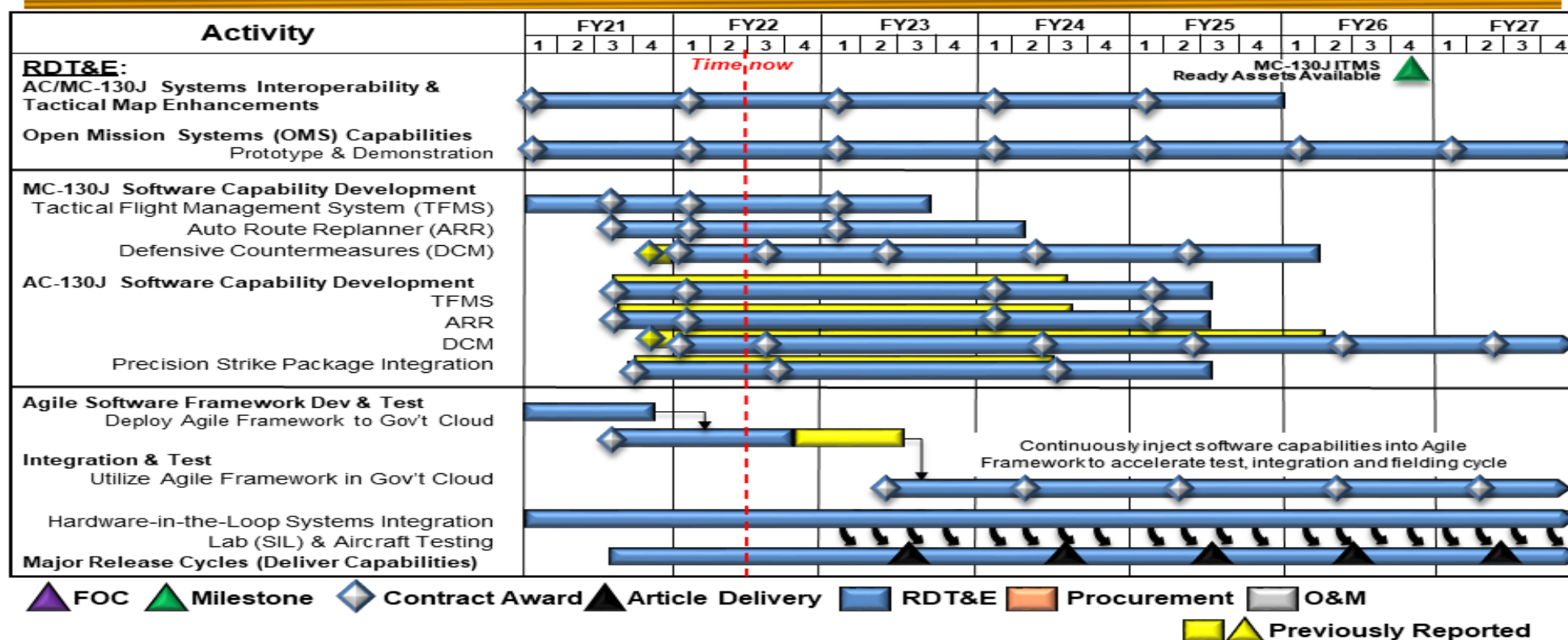


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
S875 / AC/MC-130J

## Integrated Tactical Mission Systems (ITMS) Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> S875 / <i>AC/MC-130J</i>
--	--	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Common AC/MC-130J Mission Systems</b>				
NextGen SMP Development, Integration & Test	1	2021	4	2022
<b>MC-130J Airborne Mission Networking (AbMN)</b>				
Engineering and Manufacturing Development	1	2021	1	2022
Phase III Integration & Test (Includes Tech Data, Aircraft Integration, & Testing)	1	2021	4	2022
<b>Integrated Tactical Mission Systems (ITMS)</b>				
AC/MC-130J Systems Interoperability & Tactical Map Enhancements	1	2021	4	2025
Open Mission System (OMS) Capabilities Prototype and Demonstration	1	2021	4	2027
MC-130J Tactical Flight Management System (TFMS)	1	2021	3	2023
MC-130J Auto Route Replanner (ARR)	3	2021	2	2024
MC-130J Defensive Countermeasures (DCM)	4	2021	2	2026
AC-130J TFMS	3	2021	2	2025
AC-130J ARR	3	2021	2	2025
AC-130J DCM	4	2021	4	2027
AC-130J Precision Strike Package	3	2021	3	2025
Agile Software Framework Development & Test	1	2021	4	2022
Test & Integration of ITMS Capabilities	2	2023	4	2027
Hardware-in-the-Loop Systems Integration Lab (SIL) & Aircraft Testing	1	2021	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems				<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D615: Rotary Wing Aviation	297.904	40.334	42.787	65.837	-	65.837	68.207	59.952	61.175	58.266	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the development, rapid prototyping, demonstration, and integration of current and maturing technologies for Special Operations Forces-peculiar (SOF-p) rotary wing aviation and training requirements. This project includes modifications to Aircraft Survivability Equipment (ASE) avionics and weapons systems to counter rapidly emerging threats, address cyber security, improve lethality and enhance aircraft self-protection in contested environments. Rotary wing aircraft supported by this project include: MH-60M; MH-47G; A/MH-6; and Future Vertical Lift (FVL). These aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts. These aircraft must be capable of rapidly deploying, penetrating hostile areas undetected, and operations at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The anti-access/area denial (A2/AD) threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> A/MH-6M Block 3.0 Upgrade</p> <p><b>Description:</b> Funds the development and testing of SOF-p equipment and modifications for the A/MH-6M. It will include software development and testing to integrate new capability, development and qualification of new hardware, and test and evaluation of new weapons, sensors, communications systems, or aircraft modifications that increase system performance.</p> <p><b>FY 2022 Plans:</b> Continue software updates to incorporate communications upgrades and crypto modernization, follow-on testing on Block 3 components to improve sustainability, improved tail rotor blade development and test, improved main rotor transmission study, improved main rotor study, test and evaluate anti-jamming antennas, and weapons system test.</p> <p><b>FY 2023 Plans:</b> Continues software updates to incorporate communications upgrades and crypto modernization for enhanced situational awareness incorporating Tactical Assault Kit, continues Light Weight Auxiliary Fuel Tanks testing and initial articles build. Initiates improved main rotor transmission study and pursues improvement to the Full Authority Digital Engine Control (FADEC), and lightweight engine doors exhaust study and testing.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.065 million is for increased Block 3.0 support.</p>	1.783	2.728	2.793
<p><b>Title:</b> MH-60M Modifications and Upgrades</p> <p><b>Description:</b> Funds the development and integration of critical technologies for the MH-60 helicopter to include flight test support, engineering analysis, documentation, and airworthiness substantiation. The Block 2.0 effort integrates the Army-common</p>	3.428	2.824	4.139

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Improved Turbine Engine (ITE) into the MH-60M, replacing the current SOF-p engine. Block 2.0 initiatives include, but are not limited to, safety, performance restoration, MH-60 engineering changes and product improvements to SOF-p equipment, munitions utilized for testing, modifications to ASE and weapons systems designed to counter rapidly emerging threats, improved lethality, and enhanced aircraft self-protection in the Multi-Domain Operations (MDO) environment and against near peer threats.</p> <p><b>FY 2022 Plans:</b> Begin testing and integration of guided munitions software and continue payload restoration efforts and other technologies to improve safety and decrease operational costs to ASE, weapons systems improvement and munitions.</p> <p><b>FY 2023 Plans:</b> Continues payload restoration efforts and other technologies to improve safety and decrease operational costs to ASE, weapons systems improvement, munitions and supports MH-60 Improved Turbine Engine (ITE) integration designs.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$1.315 million is to support Block 1.0 induction support and mission critical MH-60 ITE integration designs.</p>			
<p><b>Title:</b> Degraded Visual Environment (DVE)</p> <p><b>Description:</b> The DVE solution will provide MH-47/60 aircrews with visual cues for obstacle avoidance and aircraft control during all phases of flight and significantly increase crew and passenger survivability in DVE. This program addresses SOF-p requirements for rapid fielding and weight limitations, and capitalizes on the integration of SOF-p avionics and the unique skills of the SOF aviator.</p> <p><b>FY 2023 Plans:</b> Continues DVE system design, developmental and qualification testing and develops sensor data fusion of Degraded Visual Environment Pilotage System.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$19.500 million supports sensor fusion development and system integration efforts.</p>	4.048	-	19.500
<p><b>Title:</b> Future Vertical Lift (FVL)</p> <p><b>Description:</b> Provides for development of the United States Special Operations Command (USSOCOM) platform capabilities that address SOF-p FVL requirements. This FVL family of systems significantly increases range, speed, payload, survivability, reliability, and maintainability of vertical lift aircraft to meet emerging mission requirements. The USSOCOM will participate in the service-common development of a joint FVL aircraft by injecting SOF-p requirements and equities into the initial development and design efforts to minimize SOF-p modifications to the common aircraft.</p> <p><b>FY 2022 Plans:</b></p>	9.114	9.059	10.086



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Provide for delta cost design analysis of SOF Future Long Range Assault Aircraft (FLRAA) and Future Attack and Reconnaissance Aircraft (FARA); initiate FLRAA Structural Baseline support effort and engineering analysis for Modular Open System Architecture (MOSA) implementation of Radio Frequency (RF) Countermeasures (CM), Terrain Following/Terrain Avoidance (TF/TA) Radar, Infrared (IR) Countermeasures, and DVE; continue SOF FLRAA configuration analysis.</p> <p><b>FY 2023 Plans:</b> Provides for SOF-p mission equipment package engineering, integration, and demonstration necessary to support advanced avionics, advanced mission equipment, RFCMs, TF/TA Sensor, Electro-Optical/IR Sensor, Air Launched Effects and DVE into the Army baseline. Maintains and updates FARA engineering analysis as Army baseline designs and requirements mature; continues integrating SOF-p requirements during development. Continues MOSA analysis into a common cockpit with Digital Backbone integrating SOF-p mission equipment.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$1.027 million is for continued engineering studies and risk reduction efforts.</p>			
<p><b>Title:</b> Infrared Countermeasures (IRCM)</p> <p><b>Description:</b> Provides a low Size, Weight, and Power (SWaP) IRCM capability suitable for the A/MH-6 Mission Enhanced Little Bird with potential use on the MH-60 and MH-47 aircraft. The IRCM program will leverage the Department of Navy developed Distributed Aperture Infrared Countermeasure System by integrating and testing a complete lightweight IRCM system to include a missile warning system and countermeasure capability. The IRCM program includes development of an infrared exhaust suppressor for the A/MH-6, and flare testing for emerging threats.</p> <p>NOTE: IRCM efforts have transitioned and are justified under Aircraft Survivability Equipment (ASE) Upgrades beginning with the FY 2023 President's Budget submission.</p>	0.625	-	-
<p><b>Title:</b> MH-47 Modifications and Upgrades</p> <p><b>Description:</b> Develops technologies to improve the performance and safety of the MH-47G and decrease operational costs. Efforts include, but are not limited to, the Active Parallel Actuator Subsystem (APAS), weight reduction, and performance improvement developments. This sub-project also includes modifications to ASE and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection.</p> <p><b>FY 2022 Plans:</b> Complete APAS development, including integration with MH-47G subsystems, such as Common Avionics Architecture System (CAAS), and execution of a configuration study of performance related improvements.</p> <p><b>FY 2023 Plans:</b></p>	8.105	3.949	7.048

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation
--	---	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

Continues developing technologies, weight reduction, and performance improvements; includes modifications to Aircraft Survivability Equipment (ASE) and weapons systems to counter rapidly emerging threats and enhance aircraft self-protection integration with MH-47G subsystems, such as CAAS, and execution of a configuration study of performance related improvements. Incorporates performance enhancing and weight reduction technologies targeting increased payloads, improved fuel economy, and expanded airspeed and environmental operating envelopes.

**FY 2022 to FY 2023 Increase/Decrease Statement:**  
Increase of \$3.099 million supports the building and testing of weight reduction technologies to address emerging capability enhancements.

**Title:** Mission Processor Upgrade (MPU) 0.588      1.522      1.554

**Description:** Provides for non-recurring engineering, systems engineering/testing, and future aircraft architecture studies that support replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA) rotary wing aircraft. Upgrading all internal processors increases the processing power to support critical functionality and emerging technologies that will be integrated into the CAAS. This MPU provides the processing and memory resources required to incorporate the following functions into the General Purpose Processing Unit (GPPU): (1) Global Air Traffic Management replaces ground-based navigation aids with a capability that meets the international requirement that all aircraft be compliant with digital and space-based navigation systems; (2) cognitive decision aiding system fuses information on threat, route, weather, terrain, and friendly forces, instantaneously adjusting an aircraft's route to protect the flight crew in hazardous weather, low level conditions, night conditions, and the next generation ARSOA cockpit.

**FY 2022 Plans:**  
Continue exploration of the next generation ARSOA cockpit, to include architectures studies/development and individual enabling/enhancing technologies.

**FY 2023 Plans:**  
Continues exploration of the next generation ARSOA cockpit, avionics upgrades and Next Generation Tactical Communications.

**FY 2022 to FY 2023 Increase/Decrease Statement:**  
Increase of \$0.032 million is to support continued systems engineering and testing.

**Title:** Tactical Mission Networking (TMN) 3.000      -      3.121

**Description:** Focuses on the technology development of platform software and hardware systems with capabilities to enable aircraft to effectively adapt and overcome the challenges of a highly contested and congested RF environment. This effort facilitates advanced radio waveforms and communications equipment to ensure interoperability with ground forces and multi-domain operations. Upgrading antennas, processors, radios and other enabling communications equipment will be a persistent requirement as the RF environment becomes increasingly more complex. Additionally, the Army intends to upgrade its networks

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>every two years – this funding will ensure Special Operations Aircraft can adapt and keep pace with both SOF and conventional forces' communications and networking improvements/upgrades.</p> <p><b>FY 2023 Plans:</b> Continues development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$3.121 million funds development of software and hardware to rapidly incorporate advanced waveforms, advanced communications, and networking hardware onto ARSOA aircraft.</p>			
<p><b>Title:</b> Aircraft Survivability Equipment (ASE) Upgrades</p> <p><b>Description:</b> Provides a low SWaP IRCM and RFCM capability and develops, integrates, and tests critical active and passive SOF-p aircraft survivability equipment to counter the acknowledged high proliferation of advanced surface-to-air threat systems for the A/MH-6, MH-60, and MH-47. These threat systems are evolving technically at an unprecedented rate, requiring rapid countermeasure system development and immediate spiraled improvements that will reduce the probability of successful engagement, increase the probability of detecting and countering threat systems, and improve the aircraft's ability to continue operating after sustained battle damage. ASE upgrades will leverage the Department of Navy developed Distributed Aperture Infrared Countermeasure System by integrating and testing a complete lightweight IRCM system to include a missile warning system, countermeasure capability and development of an infrared exhaust suppressor for the A/MH-6, and flare testing for emerging threats. ASE upgrades includes development and testing of both new systems and Pre-Planned Product Improvements (P3I)/upgrades of fielded survivability equipment and associated qualification testing. P3I upgrades may include, but are not limited to, expansion of loadsets on existing systems, modernization of legacy components, and studies directed at potential "collaborative off-boarding/on-boarding" detect/countermeasure capabilities to provide expanded coverage for aircrews in a high threat environment.</p> <p>NOTE: IRCM efforts have transitioned and are justified under ASE Upgrades beginning with the FY 2023 President's Budget Submission.</p> <p><b>FY 2022 Plans:</b> Continue development of new systems, P3I/upgrades of fielded survivability equipment, and continue development of countermeasures. Additional details can be provided under separate cover, upon request.</p> <p><b>FY 2023 Plans:</b></p>	9.643	22.705	17.596

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continues development of new systems, P3I/upgrades of fielded survivability equipment, and continues development of countermeasures. Additional details can be provided under separate cover, upon request.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The FY 2023 funding request was reduced by \$5.109 million to account for the availability of prior year execution balances.			
<b>Accomplishments/Planned Programs Subtotals</b>	40.334	42.787	65.837

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0201RWUPGR: <i>Rotary Wing Upgrades and Sustainment</i>	220.676	207.278	214.575	-	214.575	254.073	247.746	222.701	229.260	Continuing	Continuing
• 0201MH60: <i>MH-60 Blackhawk</i>	-	58.976	-	-	-	-	-	-	-	1,127.640	1,127.640
• 0601MH47: <i>MH-47 Chinook</i>	135.482	130.485	133.144	-	133.144	136.222	138.975	141.625	106.458	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

- A/MH-6M Block 3.0 Upgrade comprises three distinct efforts: integrated airframe, Block 3 performance kits and avionics upgrades. The airframe efforts (new rotor blades/performance components and new fuselage shells) will be a sole-source contract to Boeing, owner of the technical data associated with the performance modification to the A/MH-6 airframes. The cockpit avionics architecture will be developed by Collins Aerospace. Any new hardware components will be Non Developmental Item/Commercial-Off-The-Shelf (COTS) to the extent possible and will be competitively selected. Airframe modification and integration work will be conducted via contract with Special Operations Forces Support Activity (SOFSA).
- MH-60M Modifications and Upgrades supports systems integration and qualification efforts on MH-60M helicopters. The Modifications and Upgrades are executed via various acquisition vehicles and include, but are not limited to, government and contractor flight test support, engineering analysis, documentation, and airworthiness substantiation. Airframe modification and integration work will be conducted via a contract with SOFSA.
- DVE integrates and qualifies a solution to address a safety of flight issue while flying in Degraded Visual Environment. A competitive source selection process resulted in the down-selection of one vendor for the DVE solution which will procure, integrate, and install components to provide real-time “see through” imagery and visual cues for obstacle avoidance and landing zone information during all phases of flight.
- FVL is the SOF aviation participation in the Joint FVL effort to develop the next generation of vertical takeoff and landing aircraft and establishes the foundation for the transformation of the Department of Defense vertical lift aviation capabilities over the next forty years.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> D615 / <i>Rotary Wing Aviation</i>
<ul style="list-style-type: none"><li>• IRCM integrates a mission configurable Missile Warning System and IRCM capability at a weight suitable for the A/MH-6M aircraft. Procurement of systems for integration and test will leverage the Department of the Navy IRCM (DAIRCM) development efforts and contracts. The government will integrate the systems onto the A/MH-6 utilizing existing aircraft modification contracts. Will begin evaluation and qualification of an infrared exhaust suppressor for the A/MH-6M aircraft, and continue flare testing for emerging threats.</li> <li>• MH-47 Modifications and Upgrades will develop technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include the APAS, weight reduction, and performance improvement developments. The Modifications and Upgrades are executed via various acquisition vehicles and consist mostly of government and contractor executed integration, testing, and qualification efforts with some analytical engineering services to be completed. Post-production block modifications are accomplished via contract with SOFSA.</li> <li>• MPU provides for future cockpit architecture studies that will help define the replacement of current mission and video processors for all ARSOA platforms. Additionally, it will address near term required upgrades to existing components. Potential upgrades will be through existing Original Equipment Manufacturers (OEM), while the future cockpit architecture studies will be competitively awarded.</li> <li>• TMN provides for future communications and networking capability exploration and solution development that will ensure ARSOA platforms can communicate through voice and data in a highly contested and congested RF environment. Additionally, it will ensure ARSOA aircraft can maintain interoperability with the SOF and conventional ground forces' plan of rapidly and continually updating their communications and networking infrastructure. Non-developmental communications equipment will be procured through existing DOD contracts. Aircraft integration will be through existing aircraft modification contracts.</li> <li>• ASE upgrades integrates a mission configurable Missile Warning System and IRCM capability at a weight suitable for the A/MH-6M aircraft. Procurement of systems for integration and test will leverage DAIRCM development efforts and contracts. The government will integrate the systems onto the A/MH-6 utilizing existing aircraft modification contracts. Will begin evaluation and qualification of an infrared exhaust suppressor for the A/MH-6M aircraft and continue flare testing for emerging threats. ASE Upgrades also develops and tests both new systems and pre-planned product improvements/upgrades of fielded aircraft survivability systems and countermeasures. For new systems, other services' development and testing contracts are leveraged to the maximum extent possible. Upgrades of fielded equipment are typically accomplished by the OEM.</li></ul>		

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Degraded Visual Environment (DVE)	C/Various	PM TAPO : Fort Eustis, VA	72.145	4.048	Jun 2021	-		19.500	Apr 2023	-		19.500	Continuing	Continuing	-
Future Vertical Lift (FVL)	C/Various	PM TAPO : Ft. Eustis, VA	-	8.781	Sep 2021	8.396	Dec 2021	9.280	Apr 2023	-		9.280	Continuing	Continuing	-
FVL Congressional Add (Cong Add)	C/Various	PM TAPO : Ft. Eustis, VA	7.356	-		-		-		-		-	0.000	7.356	-
MH-47 Modifications and Upgrades	C/Various	PM TAPO : Fort Eustis, VA	50.737	8.105	Nov 2020	3.949	Nov 2021	7.048	Nov 2022	-		7.048	Continuing	Continuing	-
Tactical Mission Networking (TMN)	C/Various	PM TAPO : Fort Eustis, VA	-	3.000	Mar 2021	-		3.121	Mar 2023	-		3.121	Continuing	Continuing	-
Aircraft Survivability Equipment Upgrades	C/Various	PM TAPO : Fort Eustis, VA	28.233	9.643	Aug 2021	22.705	Mar 2022	17.596	Nov 2023	-		17.596	Continuing	Continuing	-
Prior Years Funding	C/Various	PM MELB : Fort Eustis, VA	49.820	-		-		-		-		-	0.000	49.820	-
<b>Subtotal</b>			208.291	33.577		35.050		56.545		-		56.545	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FVL	C/Various	PM TAPO : Fort Eustis, VA	5.213	0.333	Nov 2020	0.663	Nov 2021	0.806	Feb 2023	-		0.806	Continuing	Continuing	-
FVL (Cong Add)	C/Various	PM TAPO : Fort Eustis, VA	0.359	-		-		-		-		-	0.000	0.359	-
<b>Subtotal</b>			5.572	0.333		0.663		0.806		-		0.806	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
A/MH-6M Block 3.0 Upgrade	C/Various	PM MELB : Fort Eustis, VA	35.616	1.783	Apr 2021	2.728	Jan 2022	2.793	Feb 2023	-		2.793	Continuing	Continuing	-

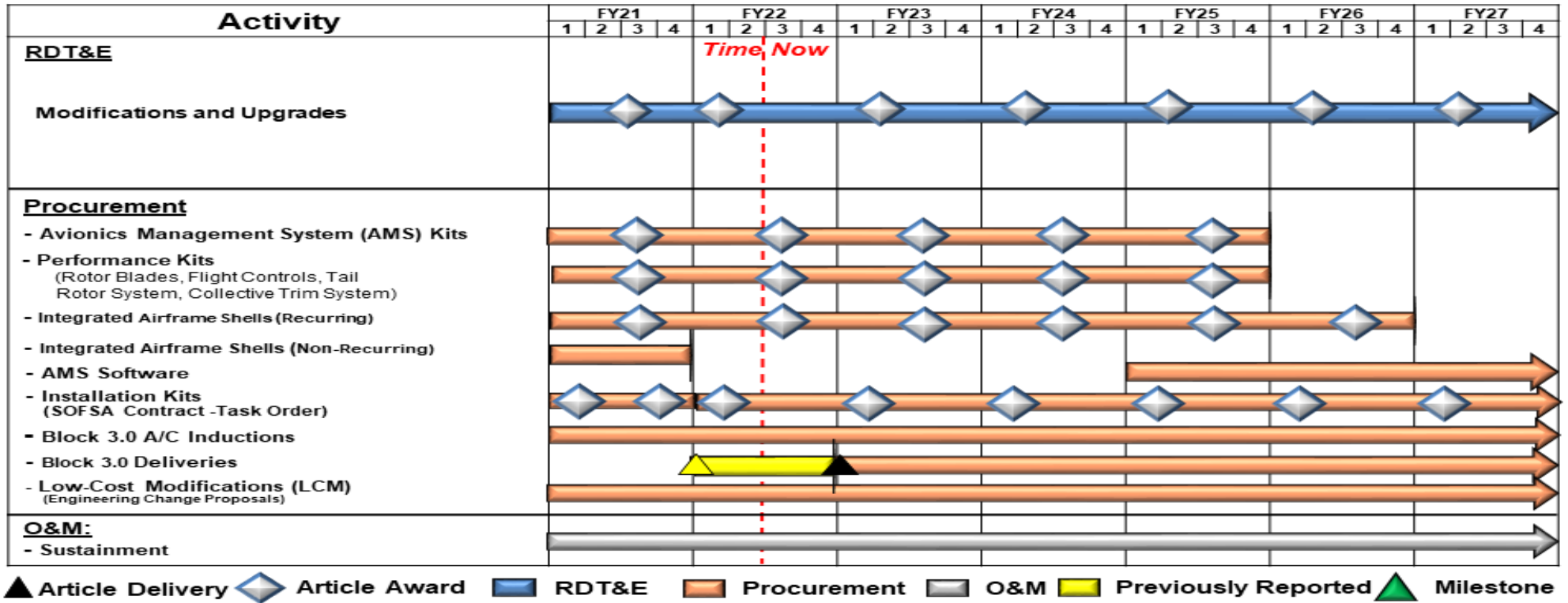


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# A/MH-6 Program Schedule



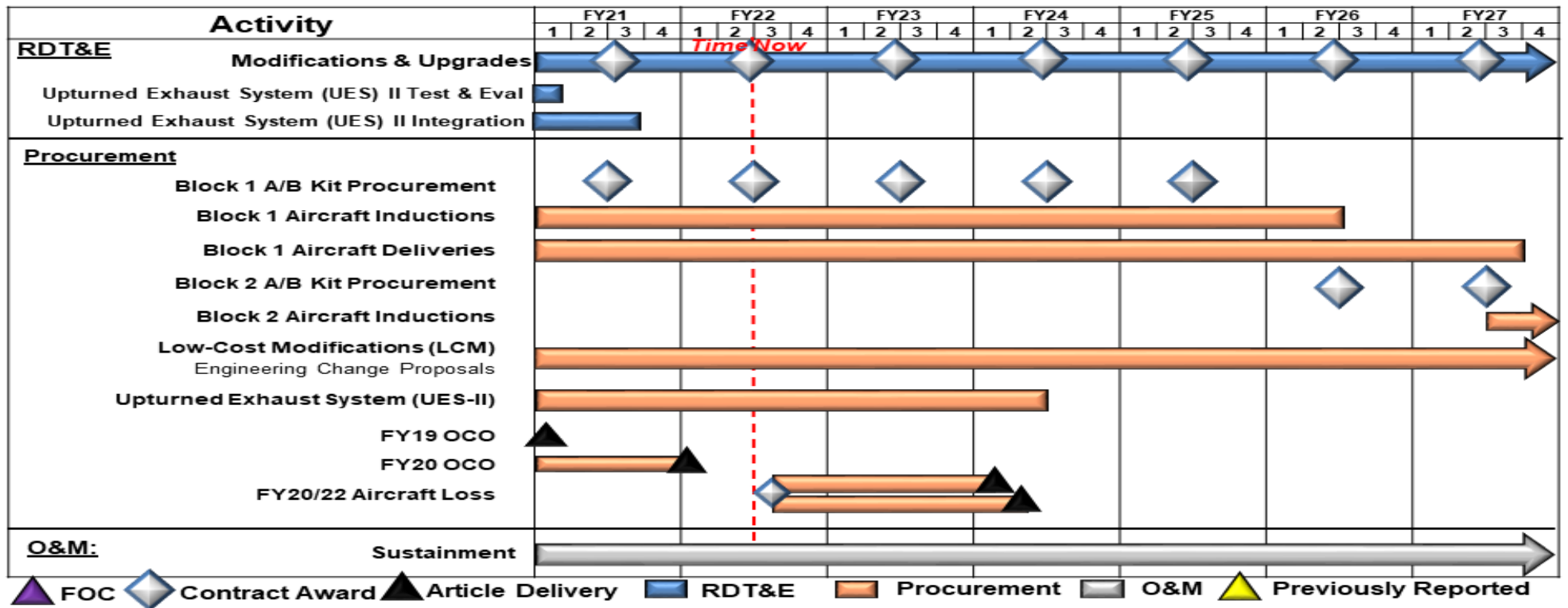


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# MH-60 Program Schedule

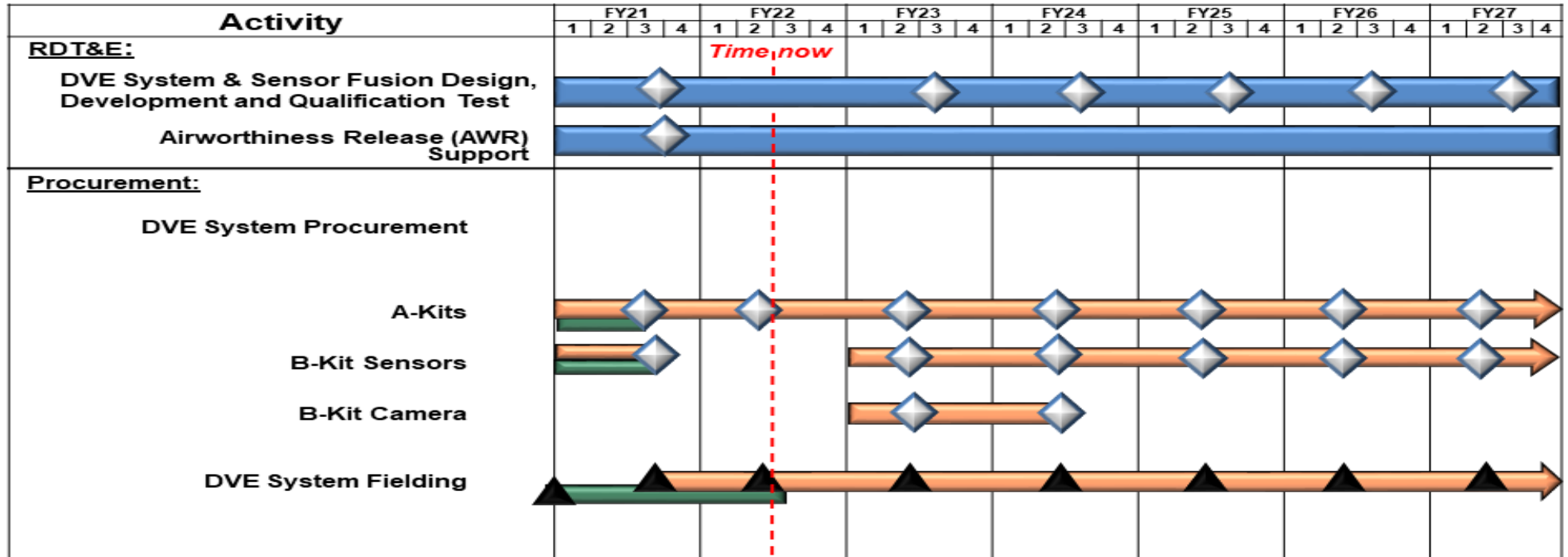


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# Degraded Visual Environment (DVE) Schedule

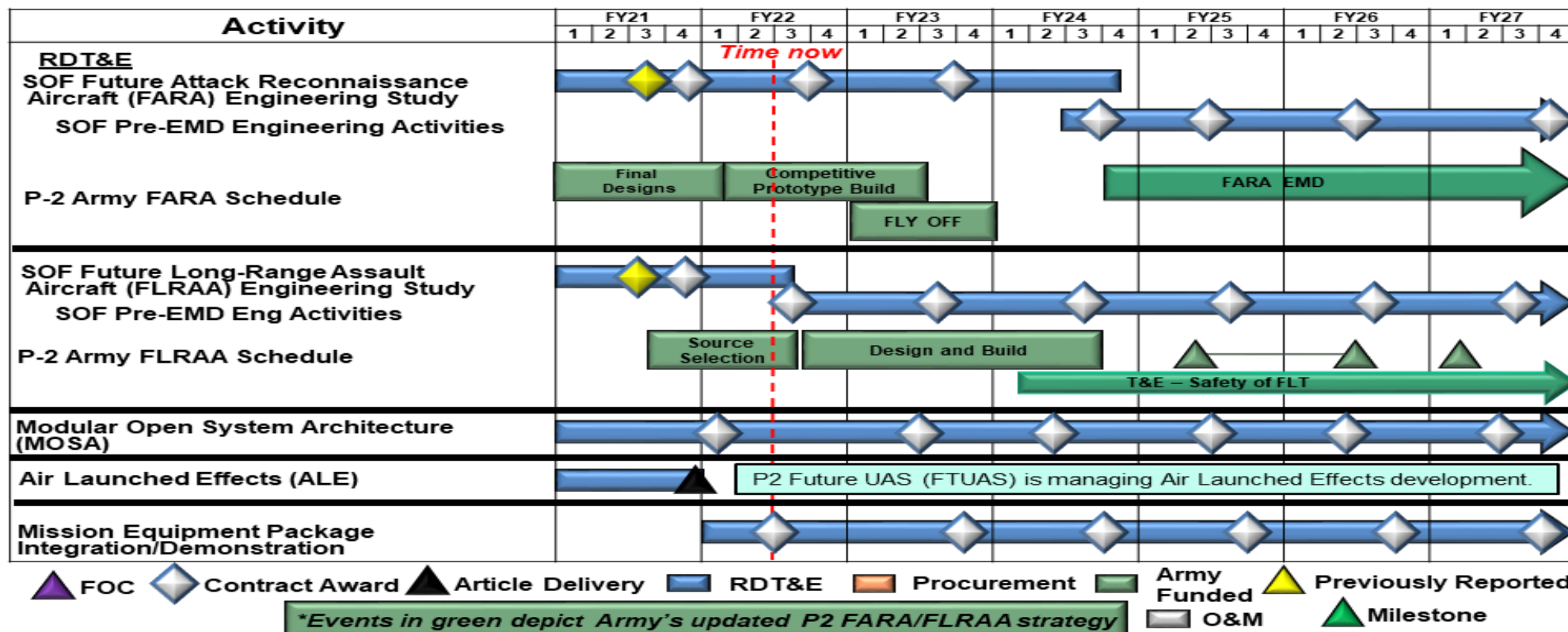


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# Future Vertical Lift Schedule

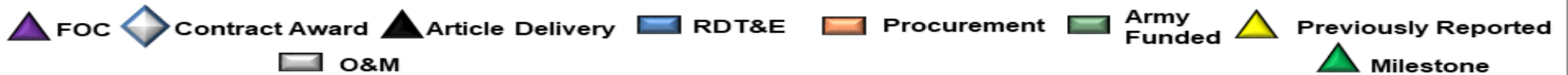
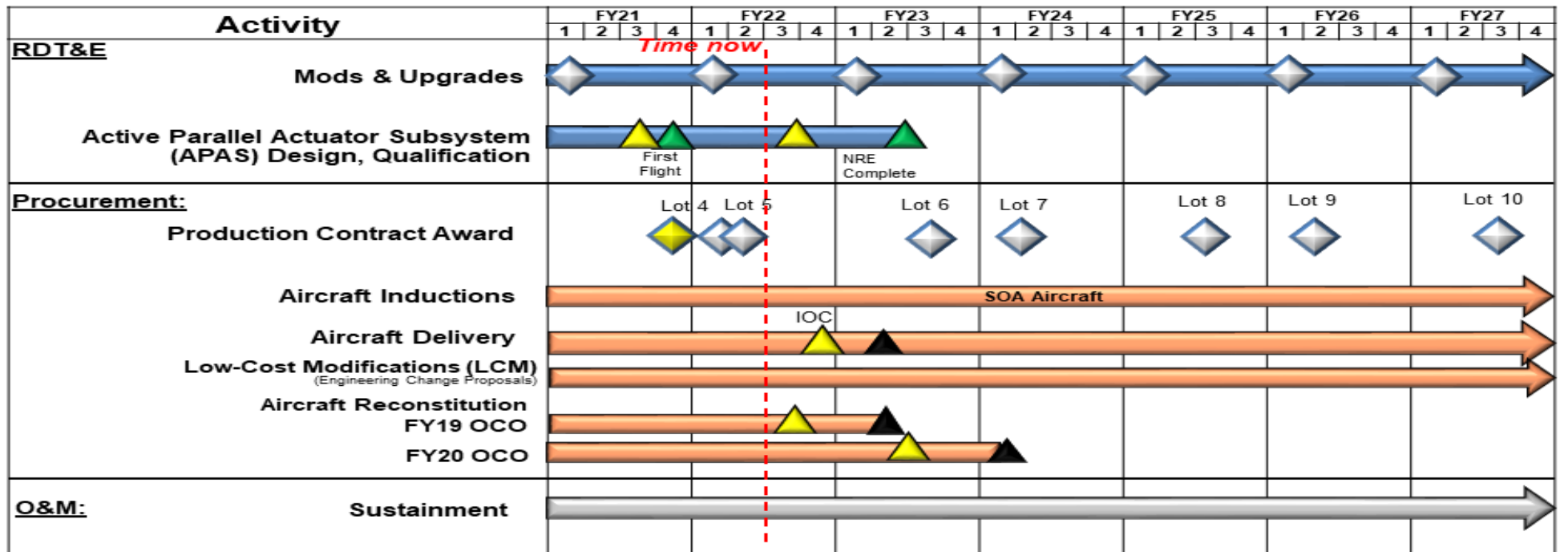


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# MH-47 Program Schedule

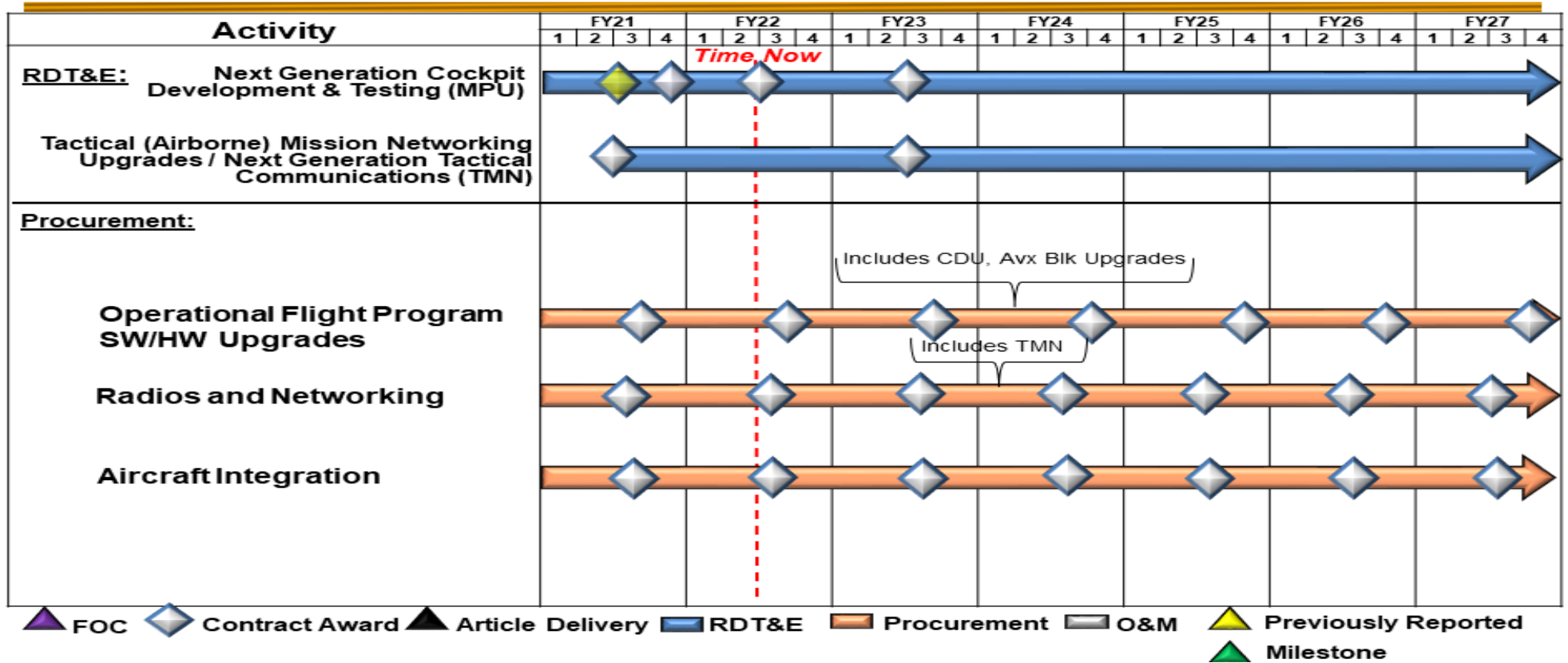


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# Mission Processor Upgrade Schedule

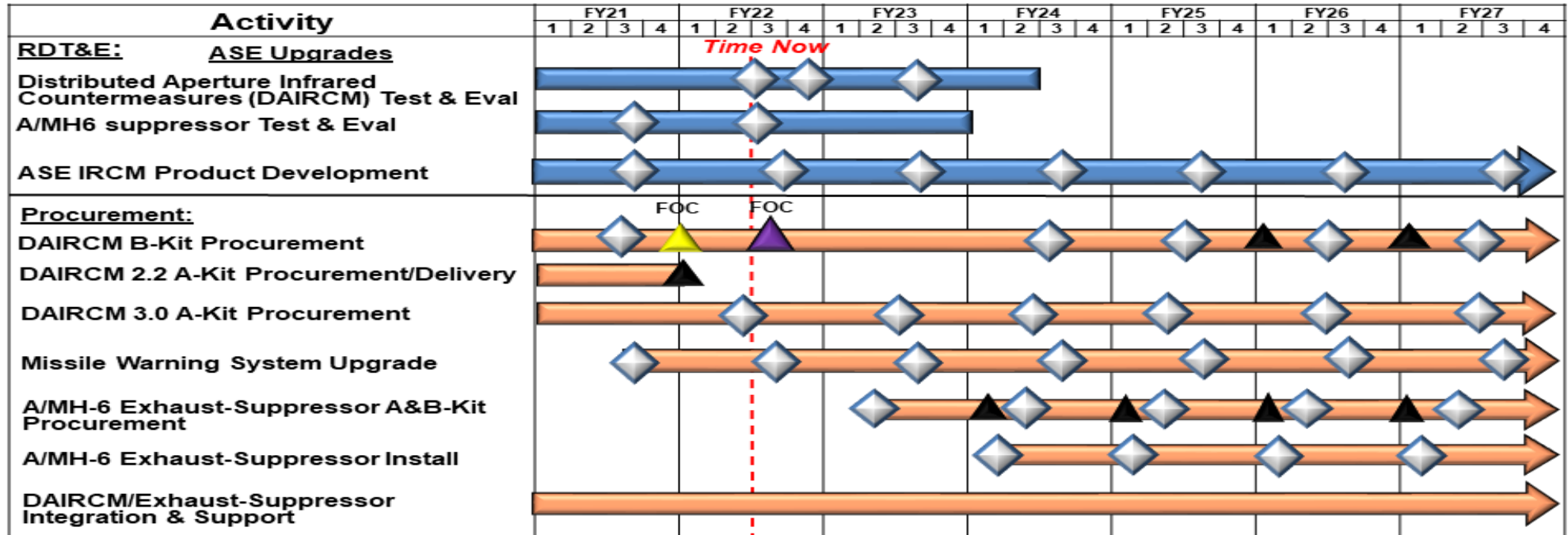


Appropriation/Budget Activity  
0400 / 7

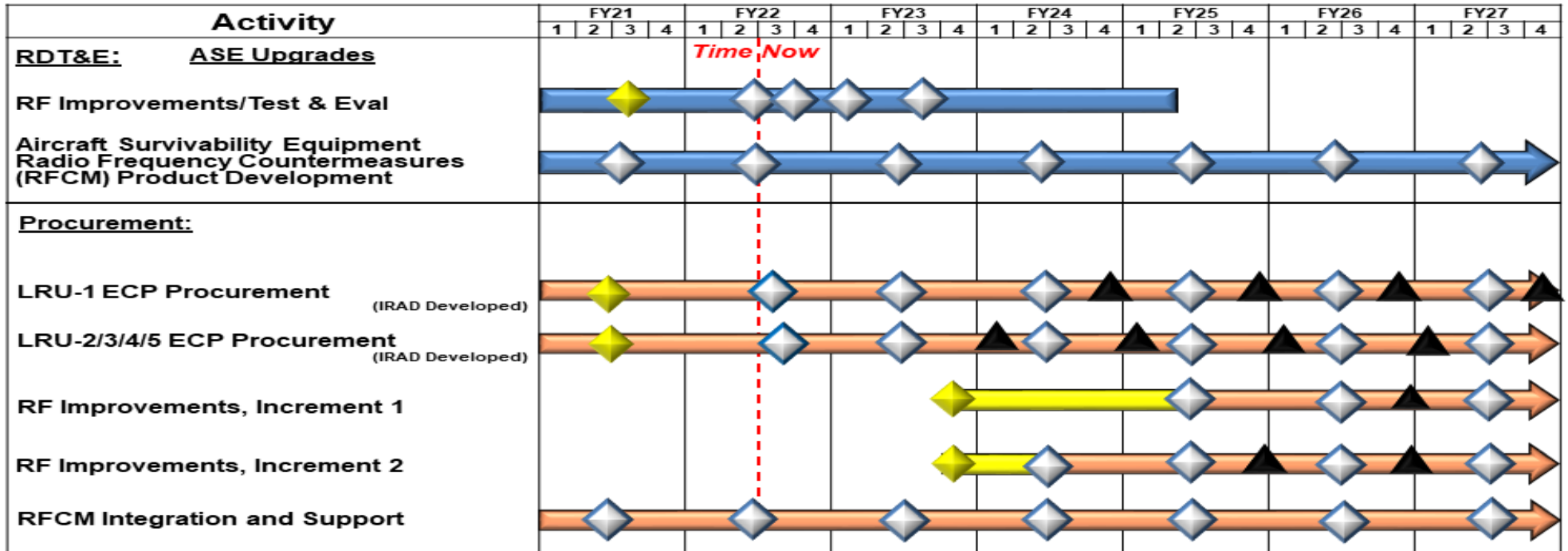
R-1 Program Element (Number/Name)  
PE 1160403BB / Aviation Systems

Project (Number/Name)  
D615 / Rotary Wing Aviation

# Aircraft Survivability Equipment Infrared Countermeasures Schedule



# Aircraft Survivability Equipment Radio Frequency Countermeasures Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>A/MH-6M Block 3.0 and Modifications</i></b>				
Modifications and Upgrades	1	2021	4	2027
<b><i>MH-60M Modifications and Block Upgrades</i></b>				
Modifications and Upgrades	1	2021	4	2027
Upturned Exhaust System (UES) II Test & Eval	1	2021	1	2021
UES II Integration	1	2021	3	2021
<b><i>Degraded Visual Environment (DVE)</i></b>				
DVE Systems & Sensor Fusion Design, Development, and Qualification Test	1	2021	4	2027
Airworthiness Release (AWR) Support	1	2021	4	2027
<b><i>Future Vertical Lift (FVL)</i></b>				
SOF Future Attack Reconnaissance Aircraft (FARA) Engineering Study	1	2021	4	2027
SOF Future Long-Range Assault Aircraft (FLRAA) Engineering Study	1	2021	4	2027
Modular Open Systems Architecture	1	2021	4	2027
Air Launched Effects (ALE)	1	2021	4	2021
Mission Equipment Package (MEP)	1	2022	4	2027
<b><i>MH-47 Program</i></b>				
Modifications and Upgrades	1	2021	4	2027
Active Parallel Actuator Subsystem (APAS) Design, Qualification	1	2021	2	2023
<b><i>Mission Processor Upgrade (MPU)</i></b>				
Next Generation Cockpit Development and Testing	1	2021	4	2027
Tactical Mission Networking Upgrades / Next Generation Tactical Communications	2	2021	4	2027
<b><i>Aircraft Survivability Equipment (ASE) Infrared Countermeasures (IRCM)</i></b>				
Distributed Aperture IRCM Test and Evaluation	1	2021	2	2024



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> D615 / <i>Rotary Wing Aviation</i>
--	--	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
A/MH-6 Suppressor Test and Evaluation	1	2021	4	2023
ASE IRCM Product Development	1	2021	4	2027
<b><i>Aircraft Survivability Equipment (ASE) Radio Frequency Countermeasures (RFCM)</i></b>				
RF Improvements Test and Evaluation	1	2021	2	2025
ASE RFCM Product Development	1	2021	4	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing
S400: <i>SO Intelligence Systems</i>	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element is part of the Military Intelligence Program (MIP) that provides for the identification, development, rapid prototyping and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas: intelligence dissemination; sensor systems; tagging, tracking, and locating devices; integrated threat warning to SOF mission platforms; biometrics and forensic site exploitation; Tactical Exploitation of National Capabilities (TENCAP) system; space-based payload development; and tactical unmanned systems. The United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems and tactical unmanned systems continue to provide SOF with the required capabilities into the 21st century. The USSOCOM tactical unmanned and C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments. These technologies will be pursued via rapid prototyping efforts when appropriate.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	26.519	32.766	0.000	-	0.000
Current President's Budget	26.519	30.399	75.136	-	75.136
Total Adjustments	0.000	-2.367	75.136	-	75.136
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.367			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	75.136	-	75.136

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S400: *SO Intelligence Systems*

Congressional Add: *Sensitive Site Exploitation - Document and Media Exploitation Program*

FY 2021	FY 2022
7.000	-

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>
---	--

<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>	FY 2021	FY 2022
Congressional Add Subtotals for Project: S400	7.000	-
Congressional Add Totals for all Projects	7.000	-

**Change Summary Explanation**

Funding:

FY 2021: None.

FY 2022: Decrease of -\$2.637 million is due to a Congressional directed program reduction to MMP (TENCAP).

FY 2023: Funding increase of \$75.136 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>				<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S400: <i>SO Intelligence Systems</i>	618.675	26.519	30.399	75.136	-	75.136	77.607	77.702	73.450	76.347	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This sub-project is part of the Military Intelligence Program (MIP). Provides for the identification, development, testing, and rapid prototyping of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Programs address the primary areas of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, SOF-unique support from space systems including Tactical Exploitation of National Capabilities (TENCAP) system, space-based payload development, and tactical unmanned systems. The systems developed and tested in this line item are National Systems Support to SOF (NSSS); Joint Threat Warning System (JTWS); Hostile Forces - Tagging, Tracking, and Locating (HF-TTL); Special Operations Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition (TVS/RSTA); SOF Planning, Rehearsal and Execution Preparation (SOFPREP); Integrated Survey Program (ISP); Sensitive Site Exploitation (SSE); SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD); Expeditionary Organic Tactical Airborne - Intelligence, Surveillance, Reconnaissance (ISR) Capability Sets (EOTACS) and Multi-Mission Tactical Unmanned Aerial Systems (MTUAS). The intelligence programs funded in this project will meet annual emergent requirements.

The United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems and tactical uncrewed systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's tactical uncrewed and C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> NSSS	0.879	3.345	9.372
<b>Description:</b> NSSS provides research and development and rapid prototyping to support the USSOCOM space-based payload and TENCAP programs and supporting capabilities. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands (TSOCs) by providing innovative space - based ISR technologies and system enhancements, products, and special communications capabilities to tactical SOF units. NSSS leverages current and developmental national and commercial systems to tailor payloads able to be integrated onto commercial and US Government satellites and integrates and augments SOCOM systems to directly support SOF tactical mission requirements and timelines. Focus areas include: Geo-spatial Intelligence (GEOINT); Signals Intelligence (SIGINT); Special Communications (SPCOM); and intelligence fusion, reporting, and dissemination. NSSS efforts are characterized by rapid prototype development to transition to SOCOM Programs of Record (POR).			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2022 Plans:</i></b> Continue development of SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets, while coordinating with SOCOM operators and POR for production and operational fielding of successful capabilities. Emphasis areas include development of the Combined Intelligence Picture-All Source transceiver capability that leverages existing national space assets and long-range precision fires integration with space based systems.</p> <p><b><i>FY 2023 Plans:</i></b> Continues development of SOF-required prototype capabilities, leveraging current or developing technologies and assets, while coordinating with SOCOM operators and POR for production and operational fielding of successful capabilities. Emphasis areas include the Combined Intelligence Picture-All Source transceiver capability that leverages existing national space assets and integration of SOF-required satellite payloads with integration with the National Defense Space Architecture (NDSA).</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$6.027 million is to support software improvements, space-based payload development, and national system integration for SOF tactical targeting in near peer threat environments. This program received a Congressional directed reduction to MMP (TENCAP) in FY 2022 (-\$2.637 million).</p>			
<p><b><i>Title:</i></b> JTWS</p> <p><b><i>Description:</i></b> The JTWS System of Systems (SoS) enables SOF cryptologic operators to collect, process, locate, and exploit threat communications signals of interest (SOI) in order to provide timely, relevant, and responsive intelligence, enhanced target acquisition, and threat warning information directly to SOF commanders. Intelligence gathered is then transposed to national databases in the Intelligence Community. JTWS capabilities are focused on multiple domains: Ground; Maritime; Air; Unmanned Aerial Systems (UAS); Unmanned Surface Systems (USS); Space; and Cyber Enabling. Each area has specific requirements for Communications Intelligence, Electronic Intelligence, and Precision Geo-location (PGL).</p> <p><b><i>FY 2022 Plans:</i></b> Continue Development and Test (D&amp;T) of modular/scalable, open architecture, and software defined solutions. Continue efforts directed towards the modularity of technologies. Begin the development of software defined, cyber hardened technologies. Continue technical evaluation of machine learning and human language translation technologies for all variants in order to reduce SOF operator workload. Continue improvement of technology for near peer SOI.</p> <p><b><i>FY 2023 Plans:</i></b> Continues D&amp;T of modular/scalable, open architecture, and software defined solutions. Continues efforts directed towards the modularity of technologies. Continues the development of software defined, cyber hardened technologies. Continues technical evaluation of machine learning and human language translation technologies for all variants to reduce SOF operator workload.</p>	14.200	11.661	21.805

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continues improvement of technology for near peer SOI. Begins the development of space-based payloads and payloads for UAS, USS, and UUS.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$10.144 million is for the research and development of payloads for uncrewed air, surface, and undersea platforms; space payloads; tools in support of cyber enablement operations, near peer, and hard targets; cyber enabled sensors; cyber hardening; and modular payload expansion.</p>				
<p><b>Title:</b> HF-TTL</p> <p><b>Description:</b> This program provides SOF with the necessary tools to find, fix, and finish target assets through the emplacement of sophisticated tags and devices that feed into an integrated architecture. HF-TTL provides Geographic Combatant Commanders (GCC) and SOF operators with an immediate capability to tag, track, and locate people, things, and activities. The HF-TTL program provides actionable intelligence for SOF mission planners. The mission sets comprise a mix of different classes of tags and their associated detection, interrogation, viewing, tracking, and communications systems that are fielded annually to SOF Components and TSOCs based upon dynamic and emergent SOF operational requirements.</p> <p><b>FY 2022 Plans:</b> Continue integration, operational testing, and evaluation in support of UAS payload integration low probability of intercept (LPI) / low probability of detection (LPD) waveform refinement, and small satellite payload development efforts.</p> <p><b>FY 2023 Plans:</b> Continues integration, operational testing, and evaluation in support of UAS payload integration LPI/LPD waveform refinement, and small satellite payload development efforts.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.378 million is due to a reduction of payload integration and test efforts.</p>		1.440	6.400	6.022
<p><b>Title:</b> TVS/RSTA</p> <p><b>Description:</b> This program provides SOF with critical Special Reconnaissance (SR) equipment that directly supports the planning and execution of SOF missions. This capability allows the SOF warfighter to meet SOF SR mission requirements to find, fix, finish, exploit, analyze, and disseminate information of an adversary's movement, construct, identification, location, and associated activities. TVS/RSTA provides GCC and SOF operators with an immediate capability to visually and electronically acquire people, things, and activities and provides actionable intelligence for SOF planners and Commanders. The Family of Systems (FoS) consists of interoperable equipment to capture and transfer near-real-time ground-based, tactical day/night/ reduced visibility, imagery, video, and electronic proximity and movement sensing, all capable of dissemination through SOF organic, global C4I, and commercial communications infrastructures.</p>		1.263	3.117	8.720

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b><i>FY 2022 Plans:</i></b> Continue specialized device modifications for Unattended Ground Sensors (UGS) and Unattended Maritime Sensors (UMS), integration with small satellite receiver payloads and operational testing and evaluation.</p> <p><b><i>FY 2023 Plans:</i></b> Continues specialized device modifications for UGS/UMS, integration with small satellite receiver payloads, operational testing and evaluation, and begins development of advanced sensor emplacement capabilities.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$5.603 million supports the development of advanced sensor emplacement capabilities.</p>			
<p><b><i>Title:</i></b> SOFPREP</p> <p><b><i>Description:</i></b> This program serves as the intelligence focal point for production of SOF enhanced GEOINT (maps, imagery, and terrain data) and three-dimensional (3D) scene visualization databases. SOFPREP gathers, processes, exploits, disseminates, and manages classified high resolution 3D databases and GEOINT data in support of SOF training, mission rehearsal, and execution preparation systems. The program builds the SOF common geospatial environment and manages the authoritative database of SOF-specific GEOINT terrain data. SOFPREP is a National Geospatial-Intelligence Agency (NGA) certified co-producer in support of time-sensitive SOF specific requirements.</p> <p><b><i>FY 2022 Plans:</i></b> Complete testing and evaluation of operational prototype systems and Artificial Intelligence (AI)/Machine Learning (ML) tools to speed production of correlated high resolution 3D geospatial databases.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Decrease of \$0.281 million is due to the SOFPREP program transitioning into an operations and sustainment effort beginning in FY 2023.</p>	0.287	0.281	-
<p><b><i>Title:</i></b> ISP</p> <p><b><i>Description:</i></b> This program collects and produces current, detailed, tactical planning data to support military operations to counter threats against U.S. citizens, interests, and property located both domestically and overseas. ISP products are specifically tailored packages that provide operational information and intelligence data for use by DOD and the U.S. Department of State to support operational planners for counter-terrorism operations, evacuations, and other rescue missions.</p> <p><b><i>FY 2022 Plans:</i></b></p>	0.803	0.797	0.869



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continue development and rapid fielding of ISP system and products to integrate with enterprise architecture and support the latest standards and technology.</p> <p><b>FY 2023 Plans:</b> Continues development and rapid fielding of ISP system and products to integrate with enterprise architecture and supports rapid and iterative delivery of digital products to meet emerging SOF requirements.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.072 million supports rapid and iterative delivery of digital products to meet emerging SOF requirements.</p>			
<p><b>Title:</b> SSE</p> <p><b>Description:</b> This program uses rapid test and evaluation of emerging biometric and forensic technology to provide state-of-the-art capabilities to the warfighter for the exploitation of documents, electronic data, materiel, and forensic evidence on sensitive sites/objectives. Biometric kits collect and transmit unique, measurable biometric signatures from personnel, including live/latent fingerprints, iris patterns, and facial features. It also provides a means to verify against and enroll subjects into the DOD authoritative database, and to query that database to support, hold or release decisions. Forensic kits enable on-objective linking of events to specific persons through chemical analysis, latent fingerprints, cell phones and computer data analysis, and deoxyribonucleic acid (DNA) collection. Exploitation Analysis Centers provide theater-level mobile forensic capabilities for more in-depth exploitation of collected exploitable material.</p> <p><b>FY 2022 Plans:</b> Continue development of software applications to enable biometric signature collection, increased volumes of collectible exploitable material (CEM) to include documents, cell phones, and electronic media, and to counter advancements in encryption and countermeasures which makes access to collectible material more difficult. Continue new touchless development of hardware and software applications to collect biometric signatures and CEM on small mobile computer devices (tablets, smart phones, etc.) and to rapidly advise SOF operators of matches to authoritative biometric databases and relevancy of CEM in order to facilitate subsequent operations and answer priority intelligence requirements.</p> <p><b>FY 2023 Plans:</b> Continues touchless fingerprint and mobile biometric device objectives, as well as integration of a low visibility, small form factor, hazardous chemical detection capability with the ability to identify chemicals through containers and windows reducing risk to the operator. A hand held device will save time, improve on-site analysis, and prevent exposure to dangerous substances while reducing the risk of igniting explosive chemicals. Continues equipment modernization persistently required for hardware and software applications that support CEM on mobile computing devices.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>	0.647	1.752	1.955

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

Increase of \$0.203 million continues equipment modernization persistently required for hardware and software applications that support CEM on mobile computing devices.

**Title:** SIGINT PED SD

**Description:** SOF SIGINT PED SD is family of products and services providing ISR, and analytical capabilities at the Joint Task Force level and below through a combination of reachback, forward support and collaboration. The program supports all Components and TSOCs with capability that interconnects warfighters, sensors, and analytic tools to find and fix enemy combatants and/or terrorists, as well as information sharing across the SOCOM Enterprise and DOD. SIGINT PED provides SIGINT exploitation capability in both garrison and deployed environments. These capabilities will be pursued via rapid fielding techniques when appropriate. For FY 2021 and prior SIGINT PED SD funding is displayed in Program Element (PE) 0305208BB; Project S400A, Distributed Common Ground Surface Systems.

**FY 2022 Plans:**

Continue development and integration of emerging technologies and capabilities enhancements for requirements including: advanced analytics; User Interfaces (UI), cloud computing, machine learning, and disconnected operations. Continue limited Objective Events and exercise participation to test integration of emerging technologies and obtain user feedback of items in development.

**FY 2023 Plans:**

Continues development and integration of emerging technologies and capability enhancements for requirements including: advanced analytics; UI, cloud computing; machine learning; and disconnected operations. Continues limited Objective Events and exercise participation in support of outside declared theater of active armed conflict preparation to include testing and integration of advanced technologies and obtaining operational feedback of upgraded capabilities in development.

**FY 2022 to FY 2023 Increase/Decrease Statement:**

Increase of \$0.555 million develops non-attribution/managed attribution technology.

**Title:** EOTACS

**Description:** Small Unmanned Airborne Systems (SUAS) categorized by airborne platform weight, range, and endurance in seven capability sets meeting the ISR requirements of SOF individuals, teams, and units. EOTACS airborne platforms are up to 55 pounds in weight, range up to 30 miles from the launch area and can fly up to eight hours before having to land. EOTACS systems include fixed-wing and Vertical Take-Off and Landing (VTOL) airborne platforms that free-fly and/or operate on a tether. SUAS ISR payloads and ancillary equipment supporting EOTACS are also included.

**FY 2023 Plans:**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
	-	0.565	1.120
	-	-	14.338

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Begins development, test, rapid prototyping, and integration of AI/ML advances into SUAS toward collaborative autonomy, including autonomous navigation and obstacle avoidance, automated target recognition, and multi-system operations by a single user (person-on-the-loop) while continuing test, rapid prototyping and integration of SUAS, ISR payloads, and ancillary equipment.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$14.338 million is due to a transfer of EOTACS funding from PE 1160434BB; Project S855, Unmanned ISR to PE 1160405BB; Project S400, SO Intelligence Systems Development beginning in FY 2023. Increase supports investment in SOF SUAS collaborative autonomy capabilities including autonomous navigation and obstacle avoidance, automated target recognition, and multi-system operations by a single user (person-on-the-loop).</p>				
<p><b>Title:</b> MTUAS</p> <p><b>Description:</b> MTUAS are multi-mission tactical uncrewed aircraft systems acquired, tested, trained, fielded, and supported for use by Naval Special Warfare units. The unmanned aircraft systems are comprised of Group 2 and Group 3 light air vehicles between 21 and 1320 pounds, modular ground control stations, full motion video payloads, peripherals, and SOF-unique mission kits, payloads, modifications and technology improvements.</p> <p><b>FY 2023 Plans:</b> Begins to develop, test, and integrate emerging technologies and performance enhancements for SOF-peculiar requirements to include but not limited to the following capabilities: maritime launch and recovery; tactical mobility; communications relay; target designation; common ground control stations; alternative navigation/assured position navigation and timing; beyond line of site operations; machine learning and edge computing; cooperative and collaborative autonomy; man/machine interface improvements; survivability improvements; alternative propulsion and power solutions; resilient communications and data links; and battle network integration.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$10.935 million is due to transfer of MTUAS funding from PE 1160434BB; Project S855, Unmanned ISR to PE 1160405BB; Project S400, SO Intelligence Systems Development. Increase supports development of V-BAT 128 system and payload upgrades, integration, and test.</p>		-	-	10.935
<p><b>Title:</b> Classified Sub-Project</p> <p><b>Description:</b> Classified Sub-Project (provided under separate cover).</p> <p><b>FY 2022 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>		-	2.481	-

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Decrease of \$2.481 million will be provided under separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>	19.519	30.399	75.136

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Sensitive Site Exploitation - Document and Media Exploitation Program	7.000	-
<b>FY 2021 Accomplishments:</b> Identified and acquired next generation equipment with a focus on touchless/cableless systems to extract and exploit data resident on digital media. Explored emerging capabilities to collect and process DNA samples from live and latent sources under ambient conditions. Conducted technical evaluation of new technologies with test and demonstration events.		
<b>Congressional Adds Subtotals</b>	7.000	-

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/020400INTL: <i>Intelligence Systems</i>	111.487	131.889	175.616	-	175.616	193.916	202.916	208.525	222.560	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

- NSSS leverages internal/external contracts, Other Transaction Authorities (OTA), and MIPRs to introduce and integrate national systems capabilities into the SOF force structure and operations. This approach rapidly develops TRL 3/4 to TRL 6/7 capabilities for SOF operational deficiencies identified by the national intelligence community competitive technology selection process. By partnering with existing Intelligence Community and SOCOM POR, NSSS incorporates SOF mission requirements into current and developing technologies and assets. This leveraging of funds increases national and commercial space-based systems awareness, demonstrates the tactical utility of national systems and commercial data, test technologies and evaluates operational concepts and allows for the transition of promising concepts and technologies to other SOF program offices for execution.

- JTWS is a SoS leveraging Commercial Off The Shelf (COTS)/Government Off The Shelf (GOTS) systems, as well as partnerships with Other Government Agencies (OGA). The POR will leverage capabilities requiring minimal modifications wherever possible. JTWS is making deliberate investments to evolve the program into modular/scalable systems with a framework supporting open architecture, software reuse, and cyber hardened solutions. JTWS will address requirements emerging from integrated deterrence on Ground, Air, Maritime, Space, and Unmanned platforms, will leverage existing partnerships with other OGA to modernize JTWS against emerging threats requiring advanced technology. The contracting strategy is a mixture of full and open competition for prime integrators, broad area announcements, and existing Indefinite Delivery/Indefinite Quantity (IDIQ) contracts.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

- HF-TTL utilizes an evolutionary acquisition strategy to provide highly sophisticated TTL and close target audio/video devices capable of operating in various environments as needed to meet SOF operational requirements. Commercial and government agency sources will be leveraged for required certifications, device level modifications, integration, functional, and operational testing and evaluations.
- TVS/RSTA employs an evolutionary strategy to incorporate the latest state of technology within its product line to provide upgraded next-generation technology insertion of COTS systems and address the changing threat environment to meet SOF reconnaissance and surveillance mission requirements. Commercial and government agency sources will be leveraged for required certifications, system level integration, functional, and operational testing and evaluations.
- SOFPREP uses a rapid acquisition strategy to facilitate rapid and iterative delivery of digital products to meet emerging SOF requirements. Commercial, open and government sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.
- ISP uses a rapid acquisition strategy to facilitate rapid and iterative delivery of digital products to meet emerging SOF requirements. Commercial, open and government sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.
- SSE uses a rapid acquisition strategy to provide next-generation technologies for collection, processing, exploitation and dissemination capabilities supporting SOF exploitation mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.
- SOF SIGINT PED SD is a system leveraging National services, controlled commercial hardware, and SOF specific capabilities, acquired through contracts and partnerships with OGA. The program represents SOF equities to OGAs, programs, and National capabilities sponsors to innovate capability for SOF SIGINT PED. The acquisition strategy is a mixture of agency partnerships and government capability providers leveraging open competition with controlled supply chains.
- EOTACS uses a rapid prototyping and rapid fielding acquisition strategy to leverage COTS, GOTS, OGA, SUAS, SUAS payloads, and ancillary equipment for SOF - unique SUAS FoS requirements. Market research identifies advances in SUAS flight performance, ISR payload performance and modularity, improved ground control station user interface, and collaborative autonomy effects for rapid prototyping and integration. Commercial and government sources are leveraged for required flight and cybersecurity certifications. Existing IDIQ contracts are utilized for procurement of systems and equipment.
- MTUAS uses evolutionary acquisition solutions that deliver, integrate, and qualify SOF- unique unmanned aircraft systems and modular mission kits that may include payloads, air vehicle performance enhancements, training systems, and ground control station upgrades. These capabilities are obtained using available acquisition strategies that include a thorough stakeholder's analysis to provide well and broadly defined capabilities. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible but may also leverage Other Transactional Authorities (OTAs) when sensible. Proprietary considerations may direct some effort to the Original Equipment Manufacturer on a sole source basis.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
National Systems Support to SOF (NSSS)	MIPR	Various : Various	56.122	0.879	Feb 2021	3.345	Feb 2022	9.372	Feb 2023	-		9.372	Continuing	Continuing	-
Joint Threat Warning System (JTWS) - All Variants (Air, Ground, Maritime, and Unmanned)	MIPR	Various : Various	118.488	8.600	Feb 2021	9.798	Feb 2022	19.725	Feb 2023	-		19.725	Continuing	Continuing	-
Hostile Forces-Tagging Tracking, and Locating (HF-TTL)	C/CFFF	Various : Various	5.738	1.319	Feb 2021	4.759	Mar 2022	5.744	Mar 2023	-		5.744	Continuing	Continuing	-
Tactical Video System/ Reconnaissance, Surveillance, & Target Acquisition (TVS/RSTA)	MIPR	Various : Various	1.359	0.851	Jan 2021	1.839	Mar 2022	7.248	Mar 2023	-		7.248	Continuing	Continuing	-
Integrated Survey Program (ISP) - Development, Test and Evaluation	C/FFP	Various : Various	2.715	0.803	Jan 2021	0.797	Jan 2022	0.869	Jan 2023	-		0.869	Continuing	Continuing	-
Sensitive Site Exploitation-Development (SSE)(Cong Add)	Various	Various : Various	-	4.200	May 2021	-		-		-		-	0.000	4.200	-
Independent Verification and Validation - SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD)	MIPR	Various : Various	-	-		0.565	Feb 2022	1.120	Mar 2023	-		1.120	Continuing	Continuing	-
Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)	MIPR	Various : Various	-	-		-		10.500	Dec 2022	-		10.500	Continuing	Continuing	-
Multi-Mission Tactical Unmanned Aerial System (MTUAS)	MIPR	Various : Various	-	-		-		1.327	Dec 2022	-		1.327	Continuing	Continuing	-
Classified Sub-Project	C/TBD	TBD : TBD	-	-		2.481		-		-		-	0.000	2.481	-
Prior Year Funding - Completed Efforts	Various	Various : Various	164.418	-		-		-		-		-	0.000	164.418	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
<b>Subtotal</b>			348.840	16.652		23.584		55.905		-		55.905	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
JTWS Chamber Access/ Signals of Interest Emitters	MIPR	Various : Various	60.123	4.800	May 2021	0.800	May 2022	1.001	May 2023	-		1.001	Continuing	Continuing	-
EOTACS - Test Range	MIPR	Various : Various	-	-		-		0.338	Dec 2022	-		0.338	Continuing	Continuing	-
MTUAS	Various	Various : Various	-	-		-		3.154	Nov 2022	-		3.154	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	116.844	-		-		-		-		-	0.000	116.844	-
<b>Subtotal</b>			176.967	4.800		0.800		4.493		-		4.493	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
JTWS Integration/Test/ Test Support	Various	Various : Various	22.099	0.800	Nov 2020	1.063	Nov 2021	1.079	Nov 2022	-		1.079	Continuing	Continuing	-
HF-TTL	MIPR	ATEC : FT Huachuca, AZ	1.744	0.121	May 2021	1.641	May 2022	0.278	May 2023	-		0.278	Continuing	Continuing	-
TVS/RSTA - User Assessments	MIPR	ATEC : FT Huachuca, AZ	6.986	0.412	Jan 2021	1.278	Mar 2022	1.472	Feb 2023	-		1.472	Continuing	Continuing	-
SOF Planning, Rehearsal and Execution Preparation (SOFPREP) - Prototype Systems	C/FFP	Various : Various	4.719	0.287	Mar 2021	0.281	Mar 2022	-		-		-	0.000	5.287	-
SSE	MIPR	Various : Various	6.809	0.647	May 2021	1.752	Jan 2022	1.955	Apr 2023	-		1.955	Continuing	Continuing	-
SSE (Cong Add)	Various	Various : Various	-	2.800	May 2021	-		-		-		-	0.000	2.800	-





UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

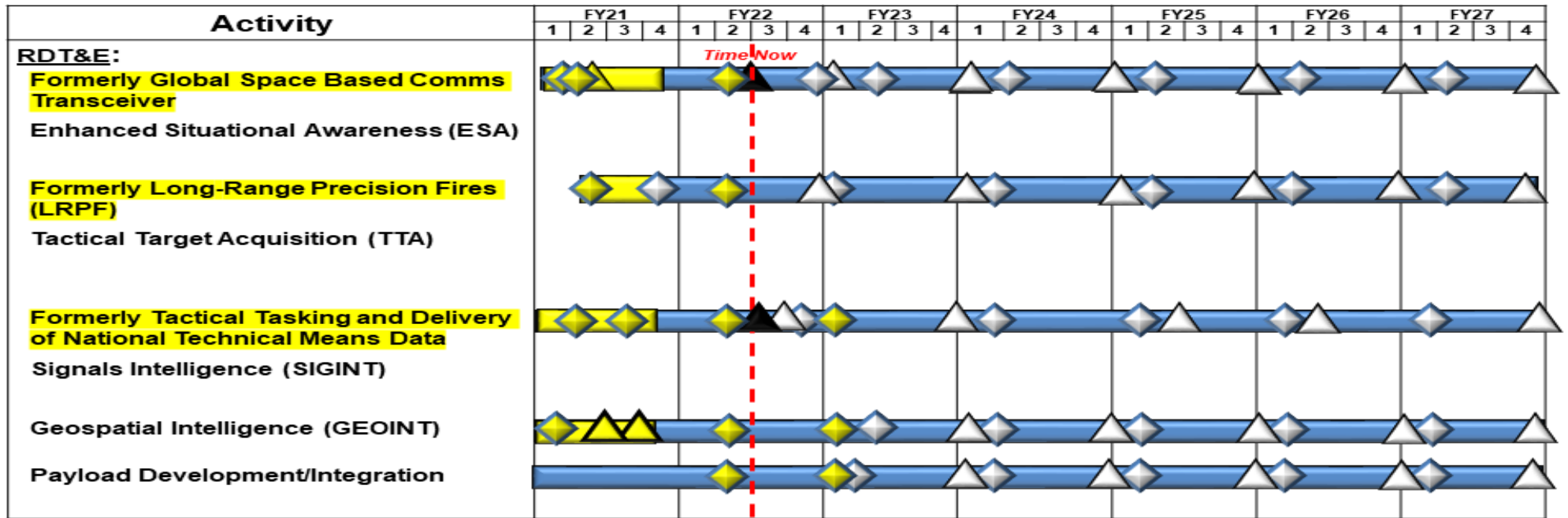
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160405BB / Intelligence Systems Development

Project (Number/Name)  
S400 / SO Intelligence Systems

# National Systems Support to SOF (NSSS) Schedule



▲ Milestone ◆ Contract Award ▲ Article Delivery RDT&E Procurement O&M Previously Reported

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

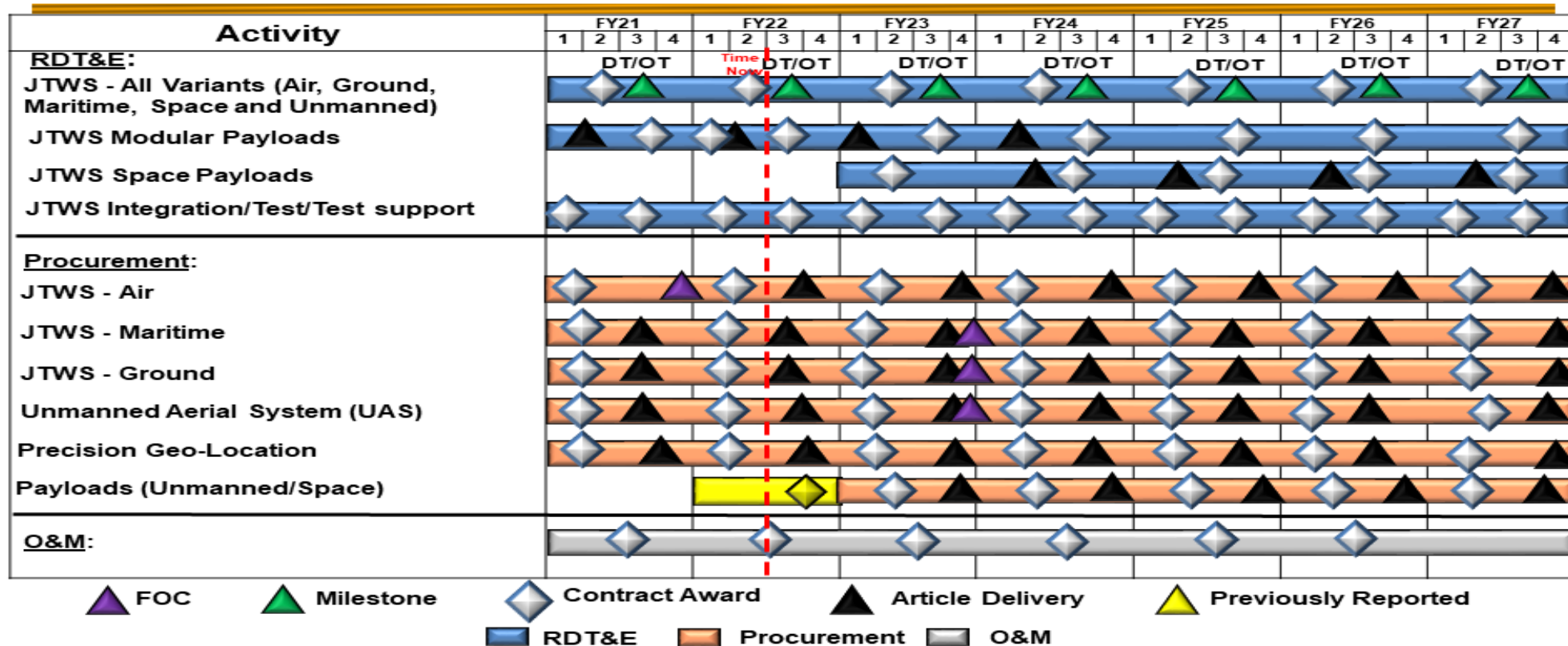
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160405BB / Intelligence Systems Development

Project (Number/Name)  
S400 / SO Intelligence Systems

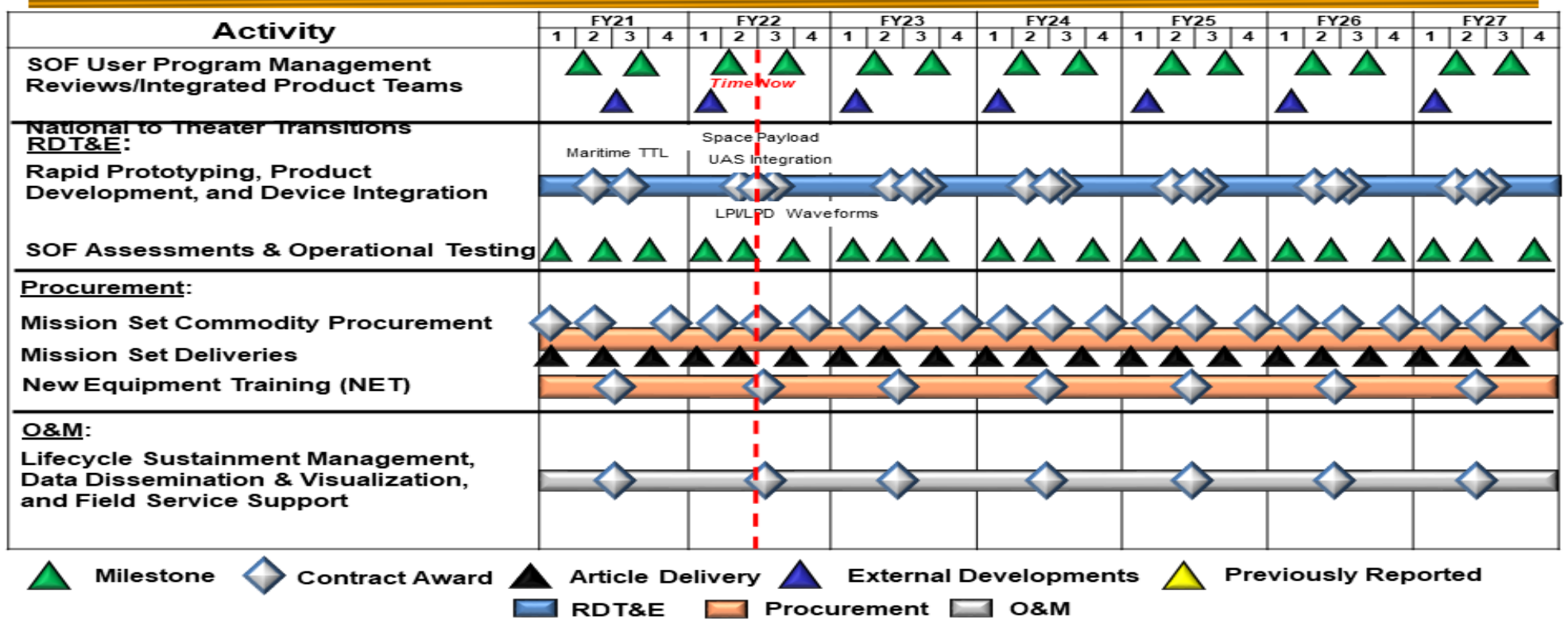
# Joint Threat Warning System (JTWS) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

# HF-TTL Schedule



UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160405BB / Intelligence Systems Development

Project (Number/Name)  
S400 / SO Intelligence Systems

## Special Operations Tactical Video System / Reconnaissance, Surveillance, and Target (TVS/RSTA) Schedule

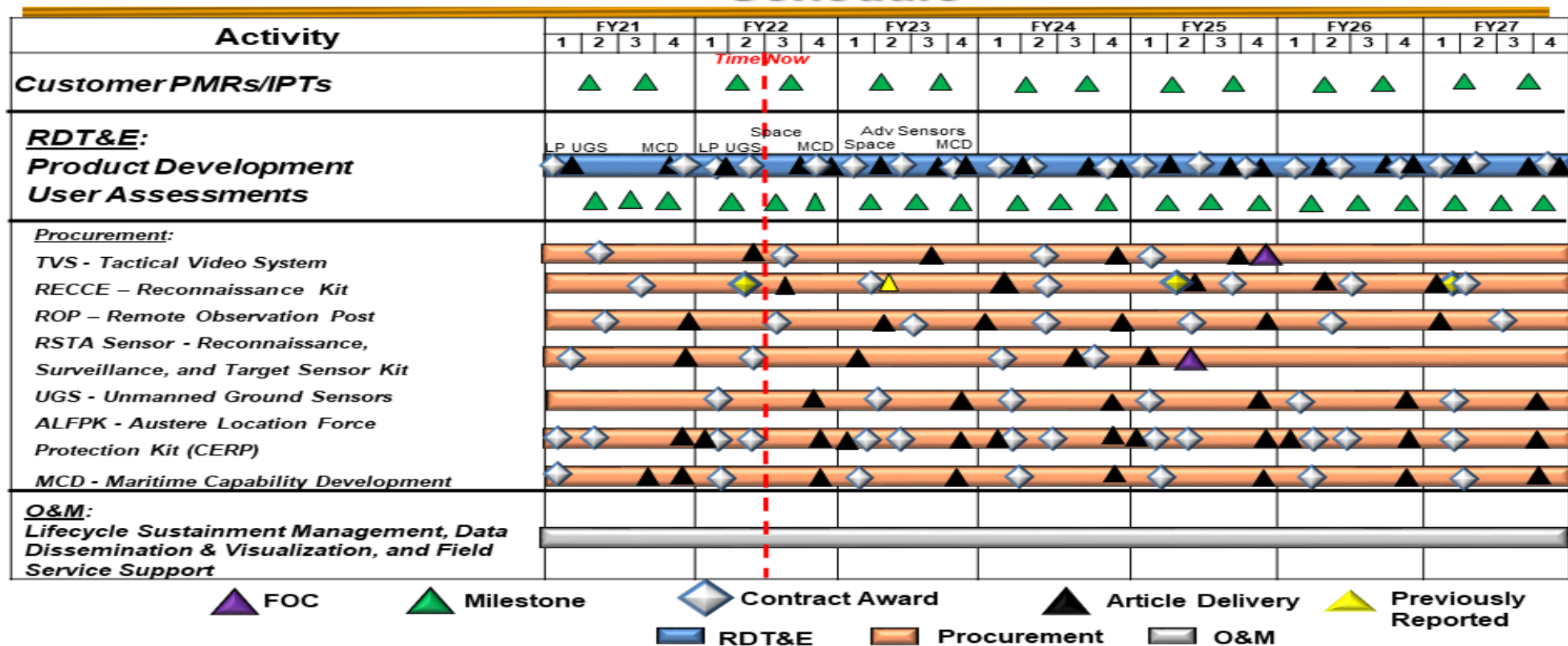
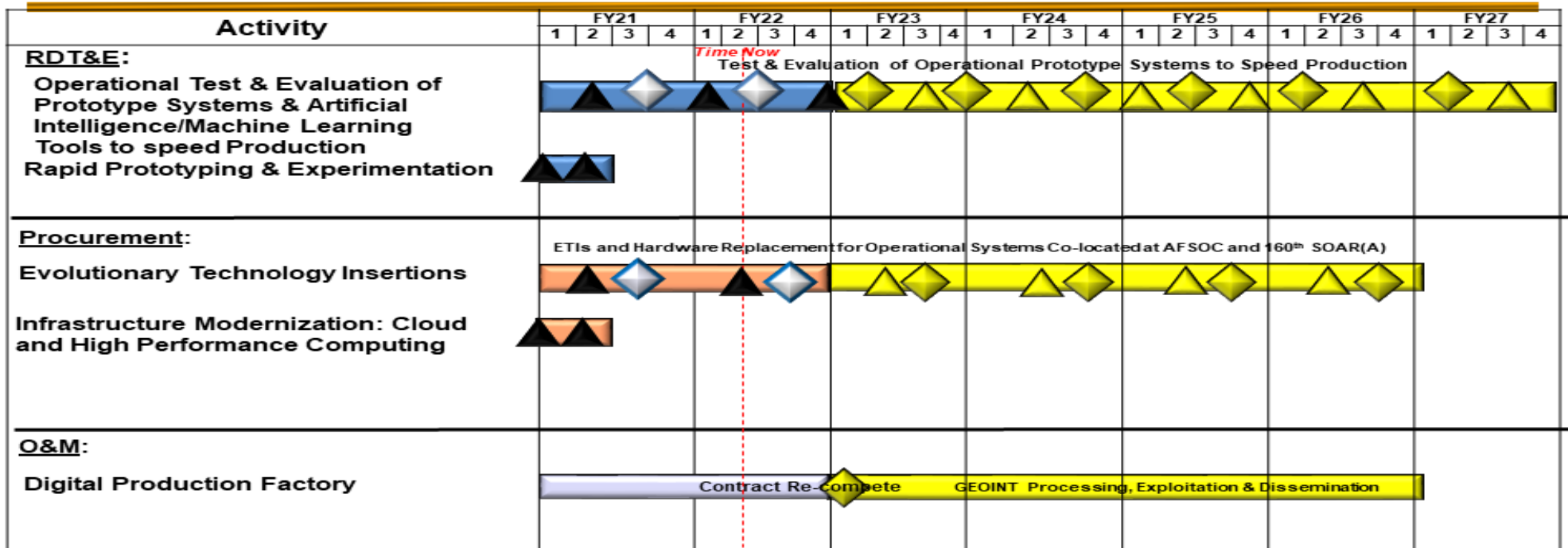


Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160405BB / Intelligence Systems Development	Project (Number/Name) S400 / SO Intelligence Systems

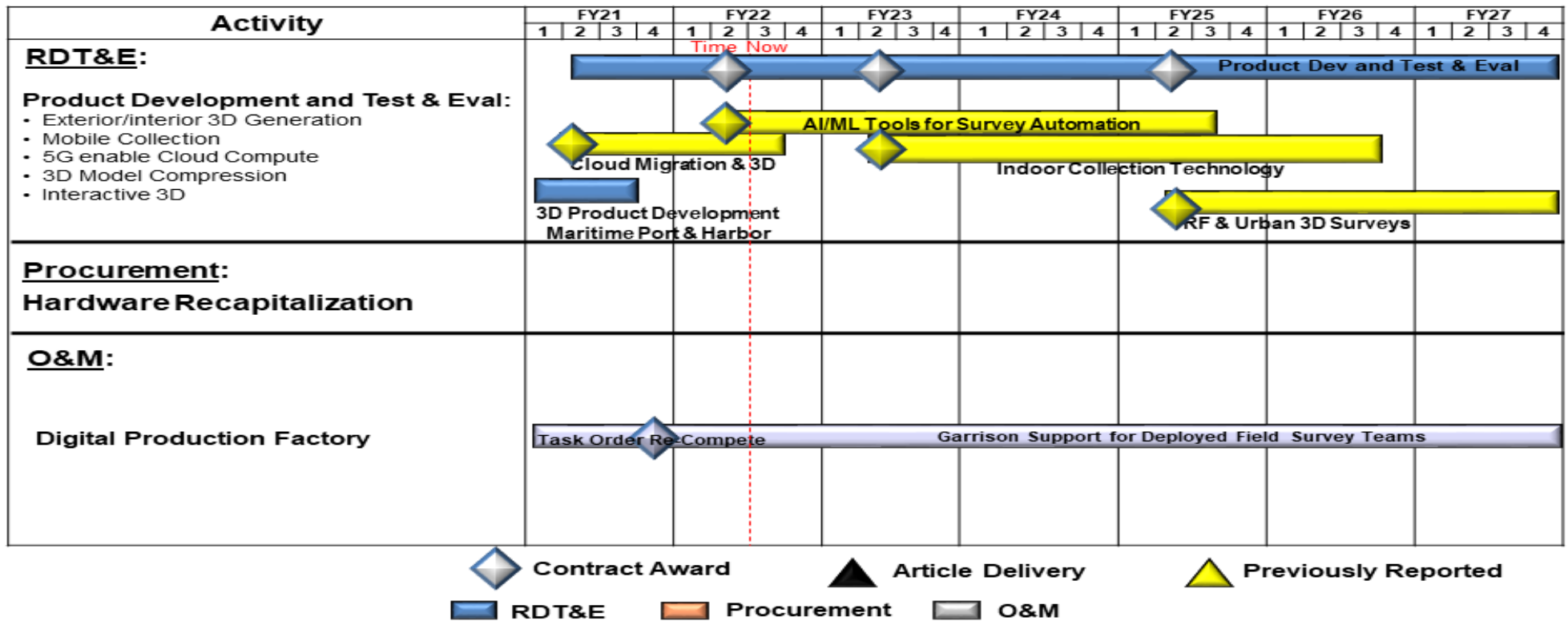
## SOF Planning, Rehearsal and Execution Preparation (SOFPREP) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

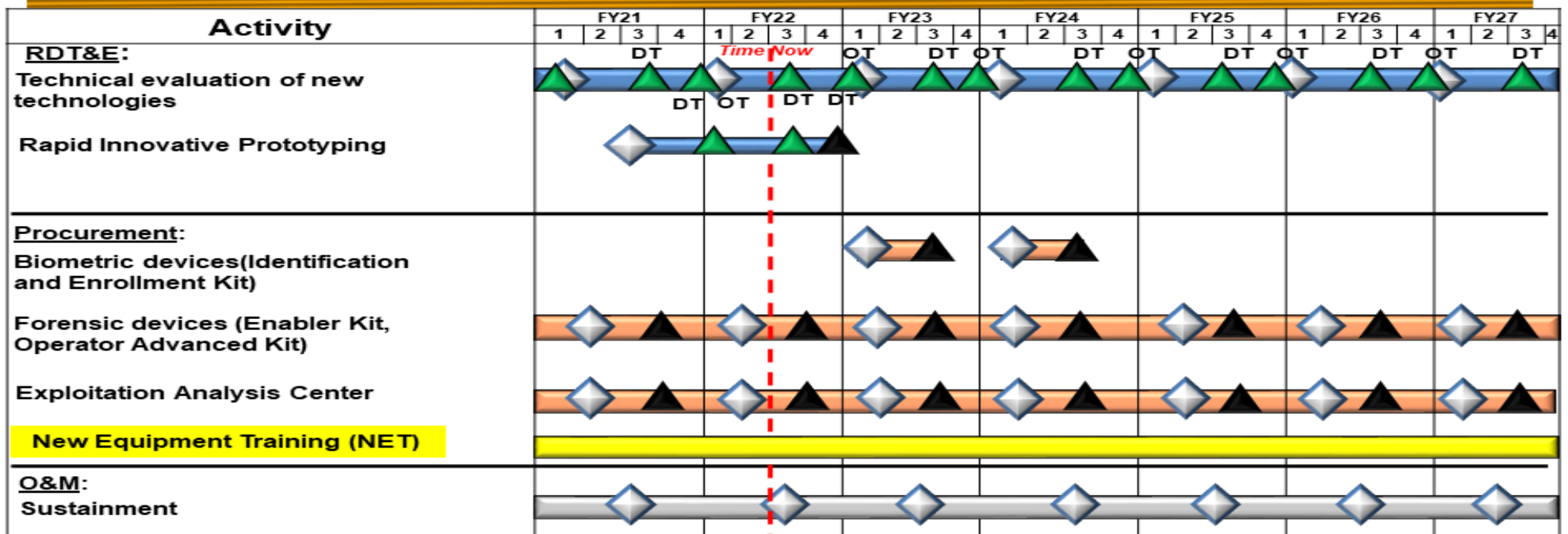
# Integrated Survey Program (ISP)



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / Intelligence Systems Development	<b>Project (Number/Name)</b> S400 / SO Intelligence Systems

## Sensitive Site Exploitation (SSE) Schedule

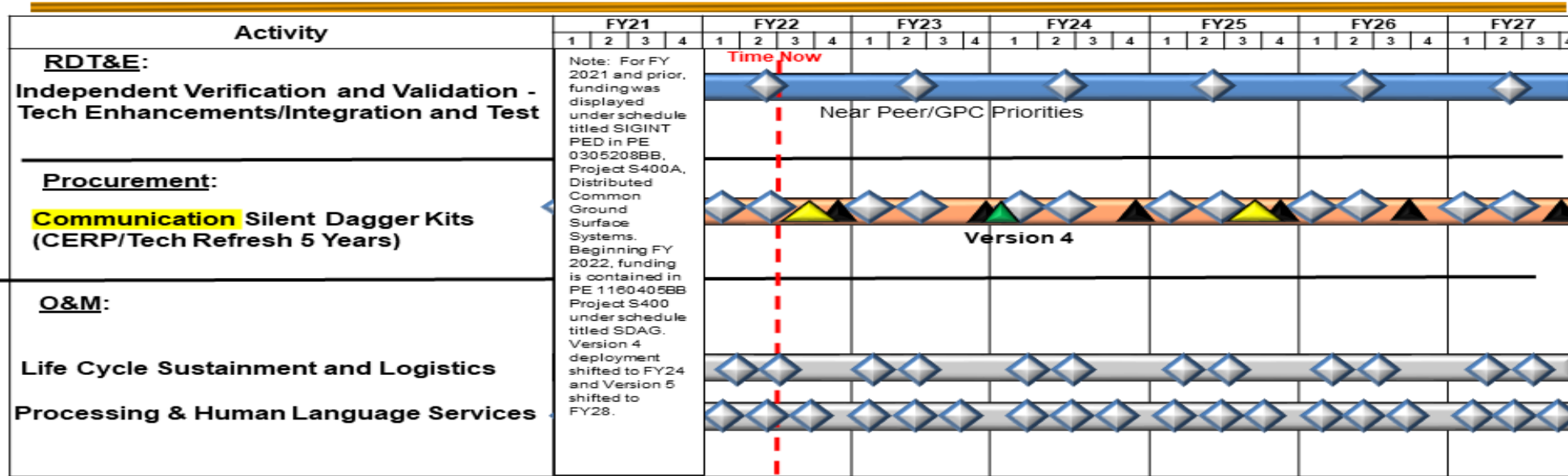


UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command Date: April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / Intelligence Systems Development	<b>Project (Number/Name)</b> S400 / SO Intelligence Systems
--	---	--

## SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD) Schedule



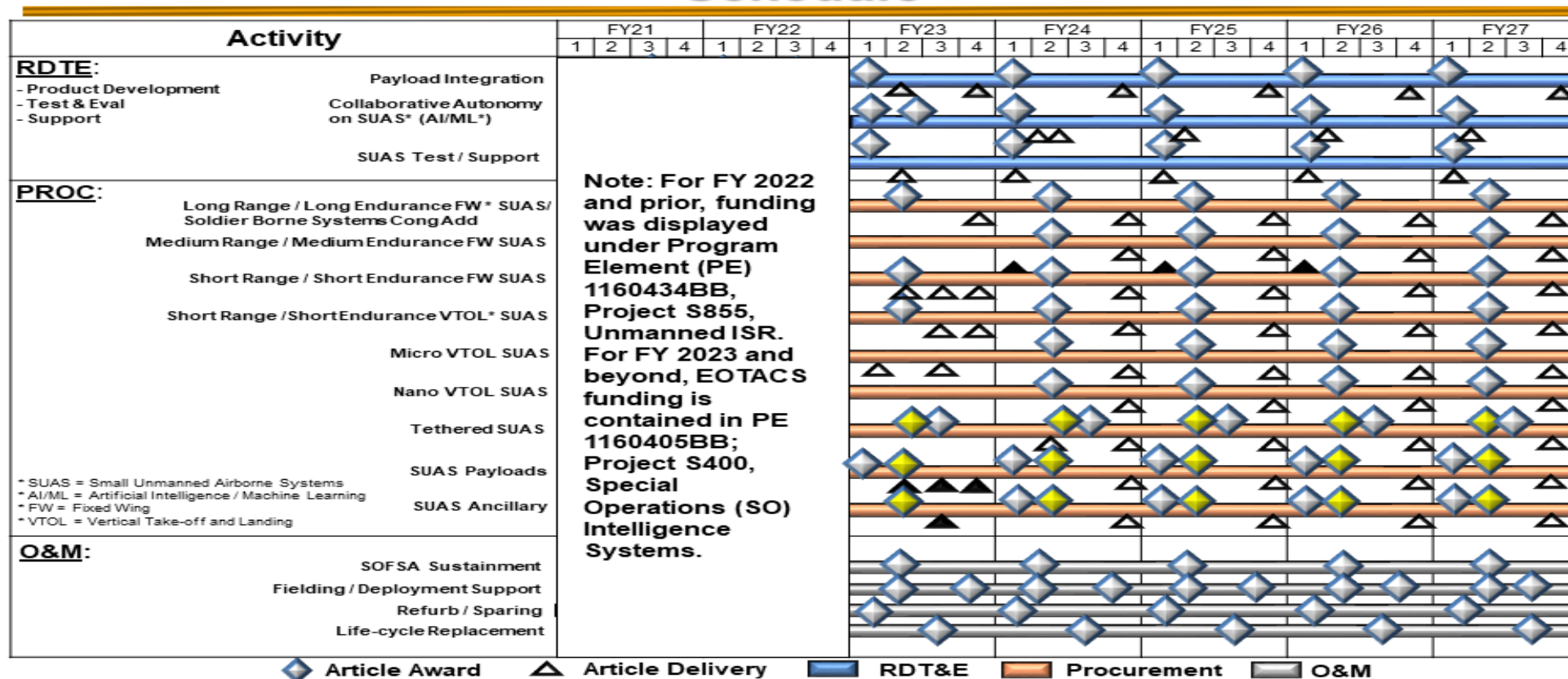


**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

## Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) Schedule

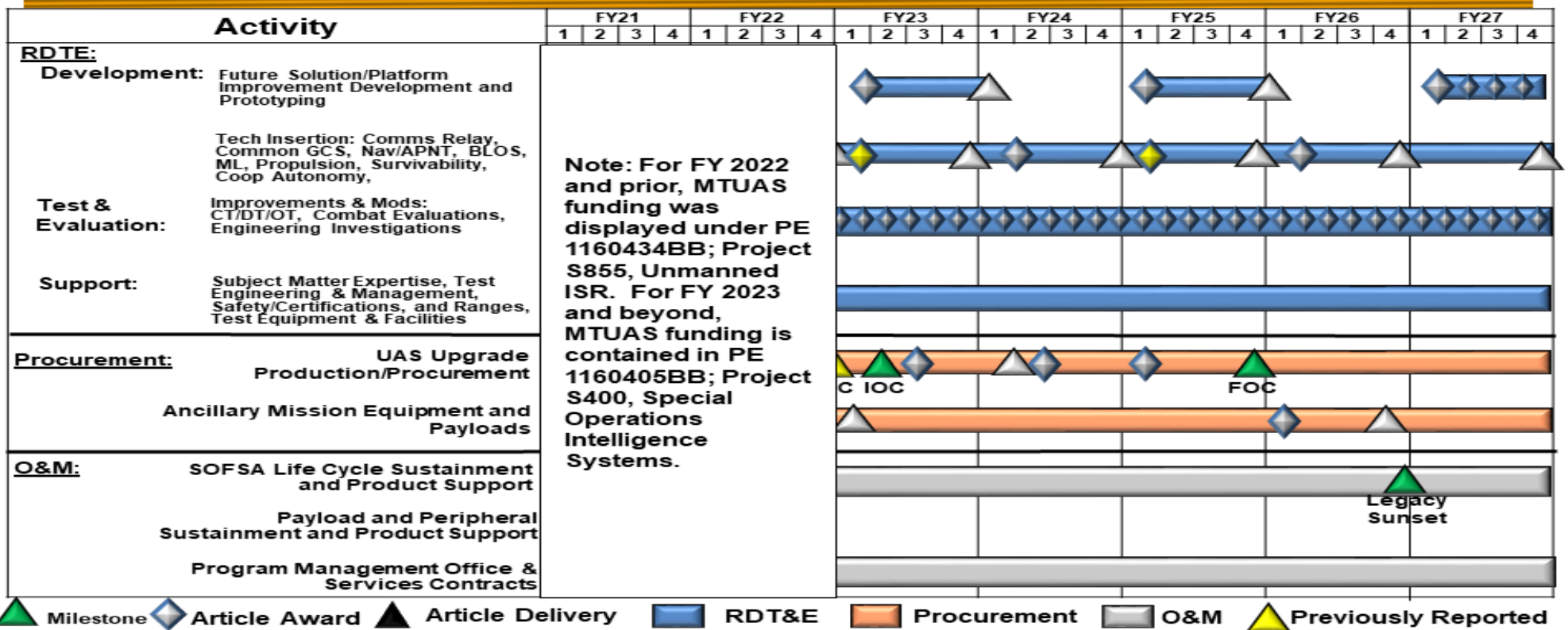


**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command Date: April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

## Multi-Mission Tactical Unmanned Aerial Systems (MTUAS) Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>National Systems Support to SOF (NSSS)</i></b>				
Enhanced Situational Awareness (ESA); (formerly Global Space Based Comms Transceiver)	4	2021	4	2027
Tactical Target Acquisition (TTA); (formerly Long Range Precision Fires)	4	2021	4	2027
Signals Intelligence (SIGINT); (formerly Tactical Tasking and Delivery of National Technical Means Data)	4	2021	4	2027
Geospatial Intelligence (GEOINT)	4	2021	4	2027
Payload Development / Integration	1	2021	4	2027
<b><i>Joint Threat Warning System (JTWS)</i></b>				
JTWS - All Variants (Air, Ground, Maritime, and Unmanned)	1	2021	4	2027
JTWS Modular Payloads	1	2021	4	2027
JTWS Space Payloads	1	2023	4	2027
JTWS Integration/Test/Test support	1	2021	4	2027
<b><i>Hostile Forces - Tagging, Tracking, and Locating (HF-TTL)</i></b>				
Rapid Prototyping, Product Development, and Device Integration	1	2021	4	2027
SOF Assessments and Operational Testing	1	2021	4	2027
<b><i>Special Operations Tactical Video System/Reconnaissance, Surveillance, and Target Acquisition (TVS/RSTA)</i></b>				
Product Development	1	2021	4	2027
User Assessments	1	2021	4	2027
<b><i>Special Operations Forces Planning, Rehearsal &amp; Execution Preparation (SOFPREP)</i></b>				

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
--	--	---

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Operational Test and Evaluation of Prototype Systems and Artificial Intelligence/ Machine Learning to speed production	1	2021	4	2022
Rapid Prototyping and Experimentation	1	2021	2	2021
<b><i>Integrated Survey Program (ISP)</i></b>				
Product Development, Test and Evaluation	2	2021	4	2027
<b><i>Sensitive Site Exploitation (SSE)</i></b>				
Technical evaluation of new technologies	1	2021	4	2027
Rapid Innovative Prototyping	3	2021	4	2022
<b><i>SOF Signals Intelligence (SIGINT), Processing, Exploitation, Dissemination (PED), Silent Dagger (SD)</i></b>				
Independent Verification and Validation - Tech Enhancements/Integration and Test	1	2022	4	2027
<b><i>Expeditionary Organic Tactical Airborne - Intelligence, Surveillance, Reconnaissance (ISR) Capability Sets (EOTACS)</i></b>				
Product Development	1	2023	4	2027
Test & Evaluation	1	2023	4	2027
Support	1	2023	4	2027
<b><i>Multi-Mission Tactical Unmanned Aerial System (MTUAS)</i></b>				
Future Solution Platform Improvement Development and Prototyping	1	2023	4	2027
Technology Insertion	1	2023	4	2027
Test and Evaluation of Improvements and Modifications	1	2023	4	2027
Support	1	2023	4	2027

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160408BB / <i>Operational Enhancements</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	1,700.858	164.711	179.230	142.900	-	142.900	138.770	136.513	139.497	141.647	Continuing	Continuing
S500A: <i>Operational Enhancements</i>	1,700.858	164.711	179.230	142.900	-	142.900	138.770	136.513	139.497	141.647	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

Details are provided under separate cover.

Fiscal Year (FY) 2021 funding totals include \$1.186 million appropriated for Overseas Contingency Operations (OCO).

FY 2022 funding totals include \$179.230 million Base with \$0.000 million Direct War and \$25.267 million for Enduring Costs.

FY 2023 Overseas Operations Costs funding accounted for in the Base budget include:

- Combat or direct combat support expenses that discontinue once combat operations end at major contingency locations (\$0.000 million).
- In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO (\$10.554 million).

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2021</u></b>	<b><u>FY 2022</u></b>	<b><u>FY 2023 Base</u></b>	<b><u>FY 2023 OCO</u></b>	<b><u>FY 2023 Total</u></b>
Previous President's Budget	174.122	145.830	0.000	-	0.000
Current President's Budget	164.711	179.230	142.900	-	142.900
Total Adjustments	-9.411	33.400	142.900	-	142.900
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	33.400			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.312	-			
• Other Adjustments	-3.099	-	142.900	-	142.900

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of -\$9.411 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$6.312 million) and details provided under separate cover (-\$3.099 million).

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160408BB / <i>Operational Enhancements</i>

FY 2022: Net increase of \$33.400 million is due to a Congressional Add for a classified adjustment (\$12.000 million) and a Congressional Add for AISUM (\$21.400 million). Details are provided under separate cover.

FY 2023: Funding increase of \$142.900 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$2.056 million to account for the availability of prior year execution balances.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	367.063	67.226	125.473	129.133	-	129.133	137.487	101.542	92.527	102.947	Continuing	Continuing
D476: <i>Military Information Support Operations</i>	55.212	3.705	3.168	5.371	-	5.371	5.500	3.434	3.503	3.573	Continuing	Continuing
S375: <i>Weapons Systems</i>	7.549	1.646	1.514	1.518	-	1.518	1.592	1.619	1.642	1.675	Continuing	Continuing
S385: <i>Soldier Protection and Survival Systems</i>	45.136	10.437	23.295	16.916	-	16.916	17.091	16.831	17.005	17.335	Continuing	Continuing
S385A: <i>Body Armor and Associated Equipment</i>	9.596	1.674	1.684	1.688	-	1.688	1.773	1.800	1.825	1.862	Continuing	Continuing
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	16.812	2.092	5.047	4.990	-	4.990	5.152	5.188	5.198	5.301	Continuing	Continuing
S700: <i>Communications Equipment and Electronics Systems</i>	60.999	28.356	21.456	48.665	-	48.665	49.902	24.013	16.204	23.070	Continuing	Continuing
S710: <i>Tactical Systems Development</i>	9.912	3.222	14.331	21.736	-	21.736	25.597	26.683	25.191	27.417	Continuing	Continuing
S725: <i>Tactical Radio Systems</i>	43.178	4.149	12.999	10.058	-	10.058	10.339	5.414	5.490	5.568	Continuing	Continuing
S800: <i>Munitions Advanced Development</i>	118.669	11.945	41.979	18.191	-	18.191	20.541	16.560	16.469	17.146	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This Program Element (PE) provides for the development, rapid prototyping, testing, and integration of specialized equipment in the areas of automation, communication, radio, weapon, soldier protection and survival, visual augmentation, lasers and sensors, munition and military information support operations (MISO) systems. Warrior Systems specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Special Operation Forces (SOF) must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success. The efforts within this PE improve SOF warfighting capabilities by continuing efforts to develop smaller, lighter, more efficient and more robust capabilities. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability while, generally, being conducted in harsh environments for unspecified periods and in locations requiring small unit autonomy. Communications efforts will maintain a command, control, and communications (C3) link between SOF Commanders and SOF Teams, and provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies and allied foreign forces. Efforts relating to soldier

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command Date: April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
---	---

protection and survival requirements will improve survivability and mobility of SOF while conducting varied missions. Counter Unmanned Aerial Systems (C-UAS) efforts rely on cutting edge detection sensors, both passive and active, paired with kinetic and non-kinetic defeat systems to allow SOF Operators to conduct SOF missions in denied and hostile environments worldwide. Specialized visual augmentation, lasers and sensors will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Munition efforts include advanced engineering, operational system development, and qualification efforts related to SOF-peculiar munitions and equipment. Maritime Precision Engagement Munition (MPE-M) and Ground Organic Precision Strike System (GOPSS) develop a SOF organic strike mission package to surgically strike an agile and mobile enemy, protect our forces, and minimize collateral damage. The MISO efforts convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. These technologies will be pursued via rapid prototyping efforts when appropriate.

Fiscal Year (FY) 2021 funding totals include \$5.796 million appropriated for Overseas Contingency Operations (OCO).  
FY 2022 funding totals include \$78.592 million Base with \$0.000 million Direct War and \$5.195 million for Enduring costs in the Base Budget.  
FY 2023 Overseas Operations Costs funding accounted for in the Base Budget include:

- Combat or direct combat support expenses that discontinue once combat operations end at major contingency locations (\$0.000 million).
- In-theater and in-CONUS expenses that remain after combat operations cease and have been previously funded in OCO (\$4.128 million).

MISO:

This project funds the development, test, and integration of systems to conduct the seven phase MISO process (planning, targeting audience analysis, series development, product development and design, approval, production/distribution/dissemination, and measures of effectiveness) in support of combatant commanders. MISO efforts convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals.

Weapons Systems:

This project provides for next generation system development and Pre-Planned Product Improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. Efforts include muzzle brakes and suppressors, and P3I for assault, sniper, and crew served weapons leveraging the latest technological advances to achieve overmatch capability against emerging threats.

Soldier Protection and Survival Systems:

This project funds the development, testing, integration, rapid prototyping and evaluation of specialized equipment to meet the unique soldier protection and survival requirements of SOF, to include, but not limited to: individual survival equipment; hearing protection; clothing systems; load bearing equipment; Multi-Mission Electronic Countermeasures (MM-ECM) formerly Counter Radio Controlled Improvised Explosive Device (RC-IED) systems; Counter Unmanned Systems (aerial, ground and maritime); and personal safety equipment to improve the mobility of SOF, while conducting varied missions. These missions are generally conducted in harsh and hostile environments, for unspecified periods and in locations requiring small unit autonomy.

The total cost of the C-UAS Middle Tier of Acquisition effort is \$30.234 million (FY 2023 – FY2027), including Research Development Test & Evaluation (RDT&E) and procurement of prototype units. The C-UAS effort is fully funded across the Future Years Defense Program (FYDP).



UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 United States Special Operations Command Date: April 2022

**Appropriation/Budget Activity**  
0400: *Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development*

**R-1 Program Element (Number/Name)**  
PE 1160431BB / *Warrior Systems*

**Body Armor and Associated Equipment:**

This project provides specialized equipment with ballistic protection to meet the unique soldier protection and survival requirements of SOF. Specialized ballistic equipment improves survivability and load bearing equipment impacting the mobility of SOF while conducting varied missions. This project enhances the SOF Personal Equipment Advanced Requirements program by providing for the research, development, and testing of body armor plates, soft armor, helmets, eye protection, and other personal protective equipment to meet current ballistic threats that exist on the battlefield.

**Visual Augmentation, Lasers and Sensor Systems:**

This project provides for the development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of SOF and facilitate future Hyper-Enabled Operator capabilities. Programs in this area include binocular/monocular devices; next generation laser designation and geo-location systems; weapon aiming lasers, scopes and accessories; and training and simulation systems.

**Communications Equipment and Electronics Systems:**

This project provides for communication systems to meet emergent requirements to support SOF. The SOF units require communications equipment that improves their warfighting capability without degrading their mobility. SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF command, control, communications, and computer (C4) capabilities.

**Tactical Systems Development:**

This project provides for the development, testing, and integration of specialized automation equipment to meet the unique requirements of SOF. Tactical systems provide forward deployed forces with advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control (C2) of forces.

**Tactical Radio Systems:**

This project provides for the development of all SOF tactical radio programs. The SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. The USSOCOM has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. The SOF Tactical Radios provide the critical command, control, and communications link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied/coalition forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed C2 communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

The total cost of the Remote, Advise and Assist Virtual Accompany Kit (RAA/VAK) Middle Tier of Acquisition effort is \$5.451 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The RAA/VAK effort is fully funded across the FYDP.

**Munitions Advanced Development:**

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
---	---

This project provides for the advanced engineering, operational system development, and qualification efforts related to SOF-peculiar and Foreign/Non-standard munitions and equipment. Funding supports development of Insensitive Munitions (IM) technology and evaluation, in accordance with the statutory requirement set forth in U.S. Code, Title 10, Chapter 141, Section 2389 (December 2001). Testing is in accordance with the USSOCOM IM Strategic Plan. Funding also supports efforts to develop and improve MPE-M, GOPSS, and Stand-Off Precision Guided Munitions (SOPGM), including the development and integration of various technologies to enhance/modernize the SOPGMs delivered onto SOF and non-SOF platforms. When appropriate, these technologies will be pursued via rapid prototyping to develop, demonstrate, and evaluate residual operational capabilities. Munitions Scalable Effects (MSE) is designated a Middle Tier of Acquisition (MTA) program which uses a Rapid Prototype effort to assess a capability to deliver different munitions with multiple effects at short range from maritime platforms. MPE-M and GOPSS are designated MTA programs which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate.

The total cost of the Ordnance (MPE-M and GOPSS) MTA effort is \$48.033 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The Ordnance effort is fully funded across the FYDP.

The total cost of the Target Engagements MTA effort is \$15.329 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The Target Engagements effort is fully funded across the FYDP.

The total cost of the MSE MTA effort is \$2.812 million (FY 2023 – FY2027), including RDT&E and procurement of prototype units. The MSE effort is fully funded across the FYDP.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	64.095	78.592	0.000	-	0.000
Current President's Budget	67.226	125.473	129.133	-	129.133
Total Adjustments	3.131	46.881	129.133	-	129.133
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	46.881			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.128	-			
• Other Adjustments	5.259	-	-	-	-
• Adjustments to Budget Year	-	-	129.133	-	129.133

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S385: *Soldier Protection and Survival Systems*

<b>FY 2021</b>	<b>FY 2022</b>

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
---	---

<b><u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u></b>	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add: <i>C-UAS</i>	-	8.670
Congressional Add Subtotals for Project: S385	-	8.670
<b>Project:</b> S710: <i>Tactical Systems Development</i>		
Congressional Add: <i>Special Operations Fused Global Data Analytics and Visualization</i>	-	8.000
Congressional Add Subtotals for Project: S710	-	8.000
<b>Project:</b> S725: <i>Tactical Radio Systems</i>		
Congressional Add: <i>STC - Software-Defined Radio Waveforms</i>	-	10.000
Congressional Add Subtotals for Project: S725	-	10.000
<b>Project:</b> S800: <i>Munitions Advanced Development</i>		
Congressional Add: <i>Various Effects Launcher Capability</i>	-	16.000
Congressional Add: <i>Maritime Scalable Effects Acceleration</i>	-	4.211
Congressional Add Subtotals for Project: S800	-	20.211
Congressional Add Totals for all Projects	-	46.881

**Change Summary Explanation**

Funding:

FY 2021: Net increase of \$3.131 million is due to an increase for product development, design, and integration of MPE-M test articles for the Altius-700 warhead payload and product development and integration of GOPSS manpackable loitering munitions (LM) capabilities (\$5.169 million); an increase to support the evaluation of Satellite Deployable Node High (SDN) Throughput Satellite constellations and terminals (\$2.900 million); an increase for product development of classified MSE against identified adversaries (\$1.000 million); an increase to support the implementation of Windows Tactical Assault Kit-Common Operating Picture - MISO enhancements (\$0.523 million); an increase for weapons prototype suppression construction (\$0.100 million); a decrease to support the evaluation of SDN High Throughput Satellite constellations and terminals and emerging critical command requirements (-\$3.500 million); a decrease to support implementation of Windows Tactical Assault Kit-Common Operating Picture enhancements and emerging critical command requirements (-\$0.933 million); and a decrease due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs (-\$2.128 million).

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160431BB / <i>Warrior Systems</i>

FY 2022: Net increase of \$46.881 million is due to a Congressional Add for C-UAS (\$8.670 million); a Congressional Add for Special Operations Fused Global Data Analytics and Visualization (\$8.000 million); a Congressional Add for Software-Defined Radio Waveforms (\$10.000 million); a Congressional Add for Various Effects Launcher Capability (\$16.000 million); and a Congressional Add for Maritime Scalable Effects Acceleration (\$4.211 million).

FY 2023: FY 2023 funding increase of \$129.133 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$1.957 million to account for the availability of prior year execution balances.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D476: <i>Military Information Support Operations</i>	55.212	3.705	3.168	5.371	-	5.371	5.500	3.434	3.503	3.573	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the development and acquisition of MISO equipment. The MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct MISO in support of combatant commanders.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Fly-Away Broadcast System (FABS)	0.682	0.696	2.836
<b>Description:</b> The FABS is a transit case fly-away broadcast system that uses Government and industry standard technology to disseminate approved messaging to target audiences via Frequency Modulation (FM), Shortwave (SW), cellular Short Message Service (SMS), and Television (TV) transmissions.			
<b>FY 2022 Plans:</b> Continue development of the Next Generation FABS-Broadcast Dissemination Platform (BDP) by integrating key capabilities that enhance MISO broadcast (Short Wave, AM Broadcast, Multi-Mode, Live Streaming and Next Generation Loud Speakers (NGLS)-Scatterable Media Integration) and reduce size, weight, and power (SWAP) through the employment of a Software Defined Radio (SDR).			
<b>FY 2023 Plans:</b> Continues development and commences test and evaluation of the Next Generation FABS-BDP by integrating key capabilities that enhance MISO broadcast (Short Wave, AM Broadcast, Multi-Mode, Live Streaming and NGLS-Scatterable Media Integration) and reduce SWAP through the employment of a SDR.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$2.140 million supports the continued development and the beginning of development/operational test of the Next Generation FABS BDP.			
<b>Title:</b> Next Generation Loud Speakers (NGLS)	1.370	0.885	0.904
<b>Description:</b> The NGLS are portable capabilities that disseminate high quality pre-recorded and live audio messages for global employment by MISO SOF. The NGLS consists of three variants: NGLS Dismounted (NGLS-D), NGLS-Scatterable Media (NGLS-SM), and NGLS-Sonic Projection (NGLS-SP). The NGLS-D is a man-portable capability that is lighter, smaller, and louder			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>than legacy speaker systems with increased resilience and durability. The NGLS--SM is a hand-emplaced or air delivered printed audio-visual device that disseminates delayed or on-cue messages to foreign target audiences. The NGLS-SP is a loudspeaker with a highly focused and narrow beam of sound capable of projecting an audio message to one specific targeted individual while being concealed from personnel in the immediate vicinity.</p> <p><b>FY 2022 Plans:</b> Continue development and evaluation of new systems and components to enhance MISO broadcasts. Complete NGLS-SM Increment 2 and development of Windows-Tactical Assault Kit/Common Operating Picture enhancements. Begin NGLS-SP development.</p> <p><b>FY 2023 Plans:</b> Continues NGLS-D development, test, and evaluation. Continues NGLS-SP development.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.019 million supports accelerated NGLS-SP development.</p>			
<p><b>Title:</b> Media Production Center (MPC)</p> <p><b>Description:</b> The MPC is a family of systems which include multi-media production, editing, and archiving capabilities to deliver imagery, audio, animation, and audio/video products of varying technical complexity to support SOF Psychological Operations Operators.</p> <p><b>FY 2022 Plans:</b> Continue incremental development, test, and evaluation of emerging software applications.</p> <p><b>FY 2023 Plans:</b> Continues incremental development, test, and evaluation of emerging software applications.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.044 million due to costs associated with the test and evaluation of new technologies.</p>	1.653	1.587	1.631
<b>Accomplishments/Planned Programs Subtotals</b>	3.705	3.168	5.371

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC1/0204OTHER: OTHER ITEMS <\$5M	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
------------------	----------------	----------------	-------------------------------	------------------------------	--------------------------------	----------------	----------------	----------------	----------------	-----------------------------------	-------------------

**Remarks**

None.

**D. Acquisition Strategy**

- The FABS program has an evolutionary acquisition strategy that aligns to the availability of developmental and commercial off-the-shelf technology, Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.
- The NGLS program has an evolutionary acquisition strategy for the legacy NGLS-D and an incremental acquisition strategy for developmental variants NGL-SM and NGLS-SP. Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.
- The MPC program has an incremental acquisition strategy for the development, test, and evaluation of advanced software applications. Government agencies and commercial sources are leveraged for required certifications, functional and operational tests, and sustainment.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Fly Away Broadcast Systems (FABS) - Broadcast Dissemination Platform (BDP)	MIPR	Various : Various	6.101	0.682	Feb 2021	0.696	Nov 2021	2.736	Dec 2022	-		2.736	Continuing	Continuing	-
Next Generation Loud Speakers (NGLS)	Various	Various : Various	1.164	1.370	Feb 2021	0.885	Apr 2022	0.804	Jun 2023	-		0.804	Continuing	Continuing	-
Media Production Center (MPC)	C/Various	Various : Various	-	1.653	Feb 2021	1.487	Jan 2022	1.531	Jan 2023	-		1.531	Continuing	Continuing	-
Prior Year	C/Various	Various : Various	30.929	-		-		-		-		-	0.000	30.929	-
Prior Year - Congressional Add	C/Various	Various : Various	15.409	-		-		-		-		-	0.000	15.409	-
<b>Subtotal</b>			53.603	3.705		3.068		5.071		-		5.071	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FABS-BDP	MIPR	Various : Various	-	-		-		0.100	Mar 2023	-		0.100	Continuing	Continuing	-
NGLS	MIPR	Various : Various	-	-		-		0.100	Jun 2023	-		0.100	Continuing	Continuing	-
MPC	C/Various	Various : Various	-	-		0.100	Jan 2022	0.100	Jan 2023	-		0.100	Continuing	Continuing	-
Prior Year	Various	Various : Various	1.609	-		-		-		-		-	0.000	1.609	-
<b>Subtotal</b>			1.609	-		0.100		0.300		-		0.300	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		55.212	3.705	3.168	5.371	-	5.371	Continuing	Continuing	N/A

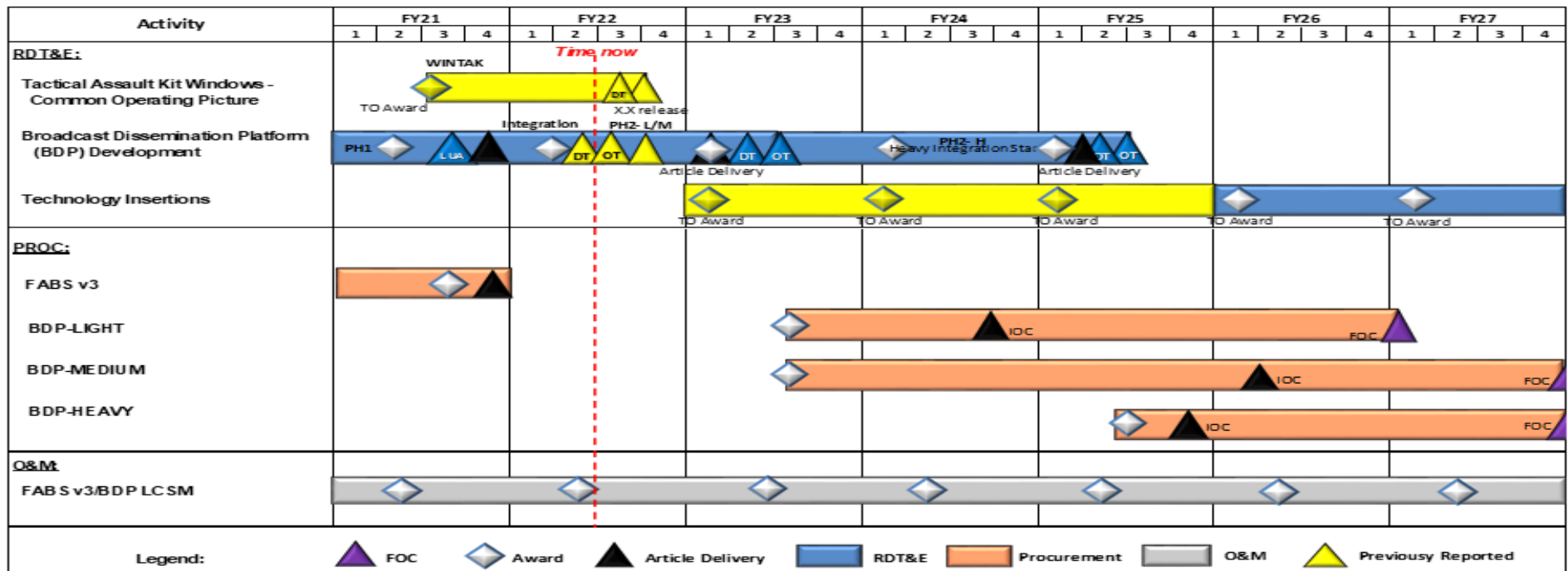
**Remarks**



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

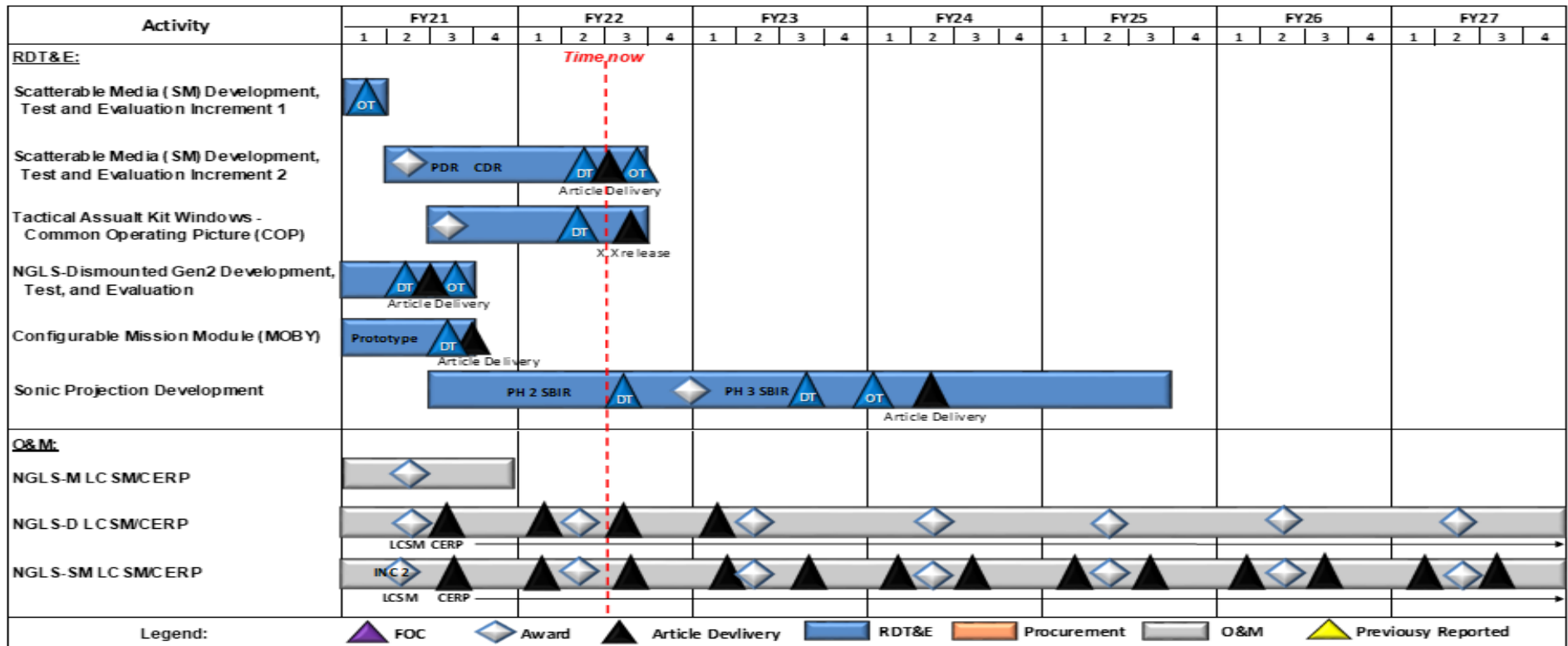
# Fly-Away Broadcast System (FABS) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> D476 / Military Information Support Operations

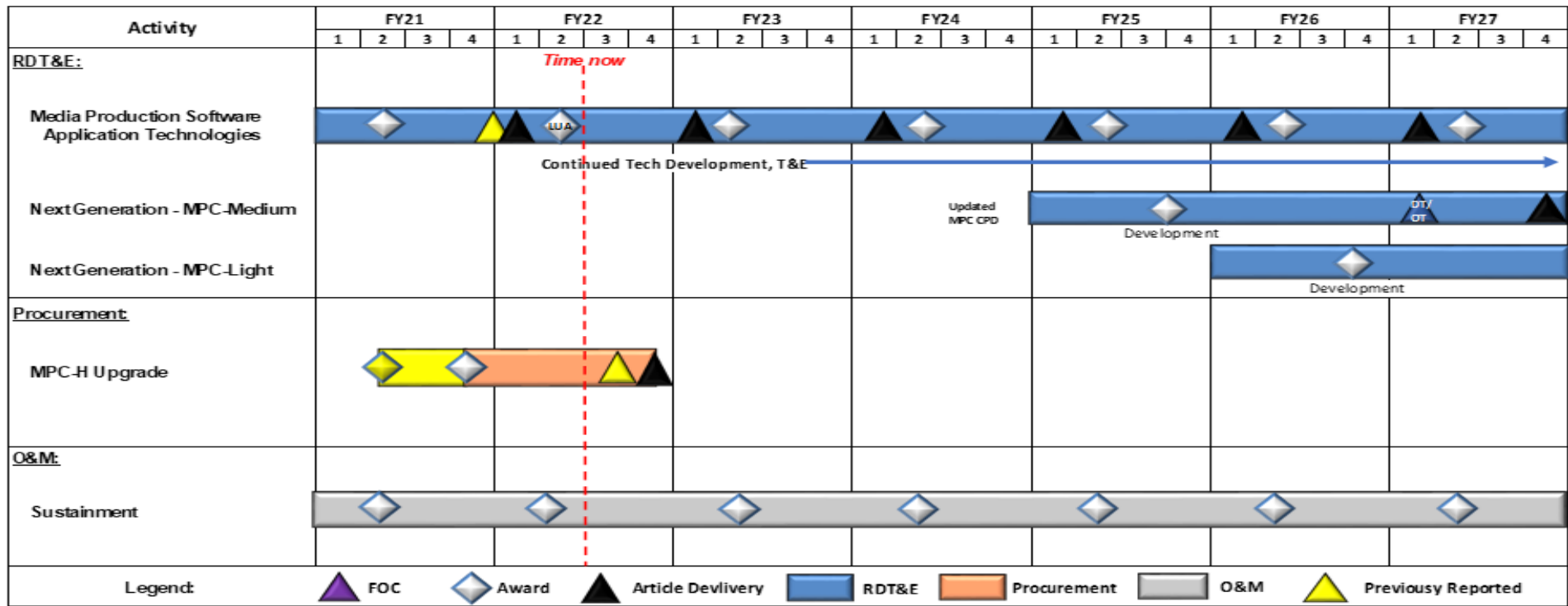
# Next Generation Loudspeaker System (NGLS) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> D476 / Military Information Support Operations

## Media Production Center (MPC) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Fly Away Broadcast Systems (FABS)</i></b>				
FABS - Broadcast Dissemination Platform (BDP) development	1	2021	3	2025
Technology Insertions	1	2026	4	2027
<b><i>Next Generation Loudspeakers (NGLS)</i></b>				
Scatterable Media (SM) Development, Test, and Evaluation Inc 1	1	2021	1	2021
SM Development, Test, and Evaluation Inc 2	2	2021	3	2022
Tactical Assault Kit Windows - Common Operating Picture	3	2021	3	2022
Dismounted GEN 2 Development, Test, and Evaluation	1	2021	3	2021
Configurable Mission Module (MOBY)	1	2021	3	2021
Sonic Projection Development	3	2021	3	2025
<b><i>Media Production Center (MPC)</i></b>				
Media Production Software Technologies	1	2021	4	2027
Next Generation - MPC - Medium	1	2025	4	2027
Next Generation - MPC - Light	1	2026	4	2027

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
--	---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S375: <i>Weapons Systems</i>	7.549	1.646	1.514	1.518	-	1.518	1.592	1.619	1.642	1.675	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the next generation systems Pre-Planned Product Improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. The efforts include the product improvements and testing of the Suppressed Upper Receiver Group (SURG), Advanced Sniper Rifle (ASR), Machine Gun (MG) Barrel, Mid-Range Gas Gun (MRGG), Personal Defense Weapon (PDW), Hand Gun (HG) Suppressor, Lightweight Machine Gun-Medium (LMG-M), and Advance Machine Gun (AMG). The product improvements will leverage the latest technological advances to achieve overmatch capability against current and emerging threats. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Weapons	1.646	1.514	1.518
<b>Description:</b> The SOF weapons are developed to enable the operator to tailor the configuration of the weapon to the assigned mission and operational environment, enhancing the overall effectiveness of the weapons, which enables mission accomplishment and operator survivability. Weapons is designated a Middle Tier of Acquisition (MTA) program which uses the rapid prototyping pathway and is executed using existing contracts, government agencies, and new contract competitively selected as appropriate.			
<b>FY 2022 Plans:</b> Continue development of enhanced capabilities to improve performance of individual sniper, rifle, and machine gun weapons to gain synergy on the Army's Next Generation efforts/gains.			
<b>FY 2023 Plans:</b> Performs safety and qualification testing and engineering change proposals of individual sniper, rifle, suppressors, machine gun weapons to support weapon reliability and performance enhancements.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.004 million is due to a miscellaneous adjustment.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.646	1.514	1.518

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
--	---	---

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems &lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Evolutionary acquisition, leveraging emerging technology and rapid prototyping efforts when appropriate. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. Full and open competition with Firm-Fixed Price contracts and Other Transaction Authorities (OTAs).

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
--	---	---

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Weapon Test & Evaluation	MIPR	Various : Various	7.549	1.646	Jan 2021	1.514	Jan 2022	1.518	Jan 2023	-		1.518	Continuing	Continuing	-
<b>Subtotal</b>			7.549	1.646		1.514		1.518		-		1.518	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			7.549	1.646		1.514		1.518		-		1.518	Continuing	Continuing	N/A

**Remarks**

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

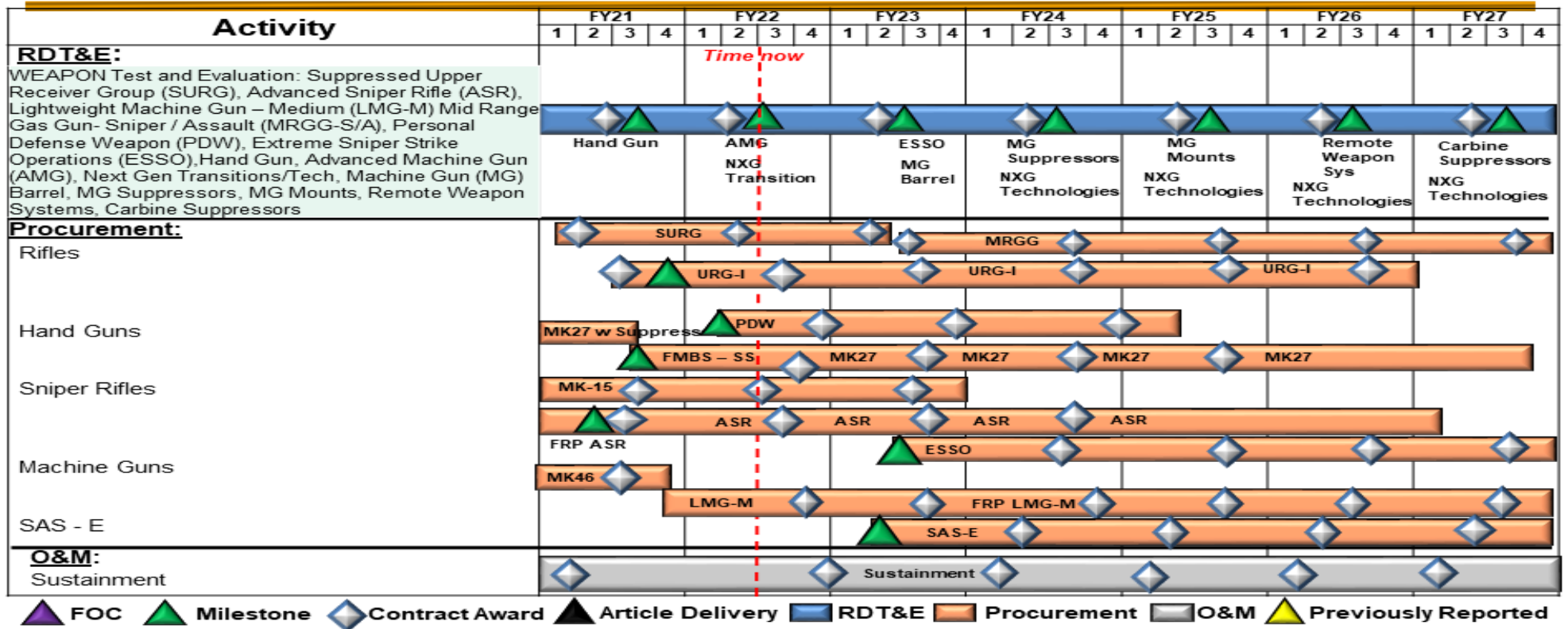
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S375 / Weapons Systems

# Weapon Systems Schedule





**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Weapon Systems</i></b>				
Test & Evaluation: Suppressed Upper Receiver Group, Advanced Sniper Rifle, SOF Machine Gun Barrel, Mid-Range Gas Gun, Personal Defense Weapon, Hand Gun, Lightweight Machine Gun, Advanced Machine Gun	1	2021	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S385: <i>Soldier Protection and Survival Systems</i>	45.136	10.437	23.295	16.916	-	16.916	17.091	16.831	17.005	17.335	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project funds the development, testing, integration, rapid prototyping and evaluation of specialized equipment to meet the unique soldier protection and survival requirements of Special Operations Forces (SOF), to include, but not limited to: individual survival equipment; hearing protection; clothing systems; load bearing equipment; Multi-Mission Electronic Countermeasures (MM-ECM); Counter Unmanned Systems (aerial, ground and maritime); and personnel safety equipment to improve the mobility of SOF, while conducting varied missions. These missions are generally conducted in harsh and hostile environments, for unspecified periods and in locations requiring small unit autonomy. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> SOF Personal Equipment Advanced Requirements (SPEAR)</p> <p><b>Description:</b> The SPEAR program provides for the research, development, testing and evaluation of a variety of individual and survival equipment to include: ballistic and environmental protective combat uniforms; load carriage systems; communications headsets; and visual augmentation system mounts.</p> <p><b>FY 2022 Plans:</b> Continue wireless Communications Headset Competition, Safety Belt recompetete, and 66 ft diveable rucksack development, test, and evaluation. Continue environmental protective combat uniforms and ancillaries, materials testing and incorporation into commodity lines, and begin power and data management efforts.</p> <p><b>FY 2023 Plans:</b> Continues power and data management, wireless headsets, environmental protection and material testing.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.029 million is due to miscellaneous adjustments.</p>	1.187	2.980	2.951
<p><b>Title:</b> Tactical Combat Casualty Care (TCCC)</p> <p><b>Description:</b> The TCCC program provides lifesaving medical devices, ancillary equipment and Casualty Evacuation (CASEVAC) sets for SOF. The CASEVAC procures a suite of Food and Drug Administration (FDA) approved medical items including, but not limited to, intraosseous infusion devices, patient monitoring and assessment devices, emergency airway kits, as well as devices that provide SOF the capability to support extraction, mobility, transportation, and sustainment of casualties in forward areas. The TCCC program fields essential lifesaving CASEVAC equipment and capabilities and is a platform to transition capabilities</p>	0.221	0.706	0.693

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>developed under the National Mission Force's Tactical Medical Programs. This capability provides significant ability to lessen battlefield losses by providing timely, critical lifesaving and evacuation capabilities to the forward-deployed SOF operators.</p> <p><b>FY 2022 Plans:</b> Continue the test support, market surveys, rapid prototyping, test article acquisition, test and evaluation, and systems engineering in direct support of the CASEVAC program with continued focus on enabling telemedicine. Test and evaluation of robust ventilators for improved capability. The FY 2022 plan includes the initiation of the USSOCOM Brain Health RDT&amp;E line in support of the longitudinal tracking of SOF end users' neurocognitive health for treatment and recovery.</p> <p><b>FY 2023 Plans:</b> Continues the test support, market surveys, rapid prototyping, test article acquisition, test and evaluation, and systems engineering in direct support of the CASEVAC program with continued focus on enabling telemedicine. Develops enhanced software to analyze blast overpressure information, conduct market surveys and test article acquisition, and test and evaluation of emerging neurocognitive assessment.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.013 million is due to miscellaneous adjustments.</p>				
<p><b>Title:</b> Multi-Mission Electronic Countermeasures (MM-ECM)</p> <p><b>Description:</b> The Radio Controlled Improvised Explosive Device program name has been updated to MM-ECM to better reflect current operational use cases for ECM equipment across Theater and National Force missions. This is the result of expanded capabilities through system modernization efforts. The USSOCOM uses ground (mounted/dismounted) based jammers to provide ECM capabilities to counter Radio Frequency (RF) controlled devices and cellular threats. This program provides scalable ECM systems whose configuration and modularity address multiple mission critical capabilities to counter this threat globally. To stay ahead of emerging threats, USSOCOM has historically developed advanced techniques on an annual basis. Through strategic partnerships with the Services, and other government agencies, USSOCOM vastly improved program affordability while maintaining Joint Force compatibility. The USSOCOM's Countering Weapons of Mass Destruction (CWMD) special mission remains the top hardware and special application module upgrades, USSOCOM is able to use its ECM for its top priority mission and continue to apply advanced techniques against emerging threats across the spectrum of warfare including great power competition. All Next Generation ECM is designed to support multiple SOF missions in competition including force protection, CWMD, and counter-Unmanned Systems (CUxS), while maintaining cost effective Counter Violent Extremist Organization (CVEO) capabilities.</p> <p><b>FY 2022 Plans:</b></p>		1.573	4.004	7.398

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continue test support to the MM-ECM program. Continue system engineering, test and evaluation, test article acquisition, and market research of the ECM programs. Maintain range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems from state and non-state actors. Continue development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Initiate Next Generation ECM development.</p> <p><b>FY 2023 Plans:</b> Continues test support to the MM-ECM program. Continues system engineering, test and evaluation, test article acquisition, prototyping and development of Next Generation ECM. Continues development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Efforts target range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems from state and non-state actors.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$3.394 million supports a MTA Rapid Prototyping effort for Next Generation ECM capability including hardware and software design, system development, testing, and generating advanced software techniques. Next Generation ECM capabilities and techniques are designed to counter emerging threats including 5G cellular and wireless protocols in support of NDS priorities.</p>			
<p><b>Title:</b> Counter Unmanned Aerial System (C-UAS)</p> <p><b>Description:</b> SOF C-UAS enhances the SOF operator's ability to detect, identify, classify, locate, track, deter, defeat, and exploit unmanned system threats. The funding in this program supports a Family of Systems (FoS) design, development, integration, prototyping, and test of cutting edge technologies that deliver and integrate various capabilities including, but not limited to, interceptors, RF detection and defeat, other passive detection, radar, and electro-optical and infrared (EO/IR).</p> <p><b>FY 2022 Plans:</b> Continue test and evaluation of sensor and effector capabilities of mounted, dismounted, and expeditionary fixed-site form factors to address emerging threats with a Systems Integration Partner (SIP).</p> <p><b>FY 2023 Plans:</b> Continues test and evaluation of sensor and effector capabilities of mounted, dismounted, and expeditionary fixed-site form factors to address emerging threats with a SIP. Completes initial fielding and deployment release testing of proven capabilities for entry into program of record.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$1.067 million is due to portfolio transition into a program, with acquisition strategy of a SIP.</p>	5.796	5.195	4.128
<p><b>Title:</b> Personal Signature Management (PSM)</p>	1.660	1.740	1.746

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Description:</b> The PSM provides for development, rapid prototyping, test, and evaluation of signature reducing materials and technology in order to reduce the probability of detection by battlefield threat sensors.</p> <p><b>FY 2022 Plans:</b> Continue fielding of signature reducing material solution and training. Initiate baseline testing against advanced threat sensors and continue development of threat sensor detector. Provide for program management, market research, test item acquisition and test and evaluation in support of PSM efforts for both land and maritime operations.</p> <p><b>FY 2023 Plans:</b> Continues baseline testing against advanced threat sensors, development of threat sensor detector, and initiates development of next generation signature reducing material solution and training.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.006 million is due to miscellaneous adjustments.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	10.437	14.625	16.916

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> C-UAS</p> <p><b>FY 2022 Plans:</b> Conduct Concept of Operations (CONOP) package optimization of Expeditionary Fixed Site configurations for new integrations via the SIP.</p>	-	8.670
<b>Congressional Adds Subtotals</b>	-	8.670

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems &lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
SPEAR: Contracts in support of SPEAR are a combination of Firm Fixed Price (FFP) five year Indefinite Delivery Indefinite Quantity (IDIQ) with single vendor awards, small business set asides, and prime vendor style multiple awards.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>
<p>TCCC: Operator &amp; Medic Kits - Program managed by Program Manager - Special Operations Forces Survival, Support, and Equipment Systems (PM - SOF SSES) using US Army Medical Materiel Agency prime vendor contracts for equipment purchases and Special Operations Forces Support Activity (SOFSA) for warehousing and sustainment. The CASEVAC Set program managed by PM - SOF SSES uses an IDIQ Commercial-Off-The-Shelf (COTS) prime integrator contract.</p> <p>MM-ECM: The USSOCOM collaborates with the DoD ECM managers and other government agencies in order to maintain Joint Force compatibility and improve program affordability. All next generation ECM development is designed to support SOF missions in integrated deterrence, while maintaining cost effective CVEO capabilities. The ECM are employed across multiple missions including force protection, support to C-UAS, Explosive Ordnance Detection, and Render Safe Electronics. Centralized life cycle sustainment of SOF ECM inventory supports Theater Special Operations Command operational demand as Theater Provided Equipment (TPE), Component CONUS home station training, and rapid deployment requirements. The SOF ECM collaborates with the Joint Services, Academia, and other government agencies to maintain interoperability and cost effectiveness. The SOF ECM will continue to leverage the SOF-to-Service transition of proven capabilities.</p> <p>C-UAS: The SOF C-UAS acquisition strategy focuses on the establishment of a SIP to work alongside Program Manager Counterproliferation. Together, we develop and integrate various sensors in mounted, dismounted and expeditionary fixed-site configurations that enhance SOF's ability to detect, identify, classify, locate, track, deter, defeat, and exploit unmanned systems threats. While the Services focus primarily on providing capability to address fixed site defense of homeland and Forward Operating Bases (FOBs); SOF require an increased level of autonomy, lower size, weight, and power (SWaP), and limited signature solutions. In FY 2021, C-UAS transitioned into a Counter Unmanned Systems (CUxS) Program of Record with an approved Capabilities Development Document (CDD). Contracts are expected to be a combination of FFP and Cost types through full and open competition across the SOCOM focus areas. The SOF C-UAS collaborates with the Joint C-UAS Office (JCO), Academia, and other government agencies for solutions and to maintain interoperability and cost effectiveness when appropriate. The SOF will continue to leverage the SOF-to-Service transition of proven capabilities where possible.</p> <p>PSM: Signature reducing technologies will be embedded into hardware or SOF clothing and equipment via modified commercial-off-the-shelf variants. Contracts in support of fielding/sustainment of any material solution will be a combination of sole source FFP five year IDIQ contracts, Source America mandatory sole sources, small business set asides and prime vendor style multiple award contracts. The PSM program will utilize SOFSA for warehousing and sustainment.</p>		

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S385 / Soldier Protection and Survival Systems</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Personal Equipment Advanced Requirements (SPEAR) - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.706	0.375	Jan 2021	0.409	Jan 2022	0.411	Jan 2023	-		0.411	Continuing	Continuing	-
SPEAR - Hearing Protection and Communications Headsets	Various	PM-SSES : Natick, MA	1.386	0.290	Jan 2021	0.300	Jan 2022	0.300	Jan 2023	-		0.300	Continuing	Continuing	-
SPEAR Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.055	0.030	Jan 2021	0.030	Jan 2022	0.030	Jan 2023	-		0.030	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.107	0.090	Mar 2021	0.100	Mar 2022	0.100	Mar 2023	-		0.100	Continuing	Continuing	-
SPEAR - Power and Data Management	Various	PM-SSES : Natick, MA	-	-		0.750	Apr 2022	0.719	Apr 2023	-		0.719	Continuing	Continuing	-
Multi-Mission Electronic Countermeasures (MM-ECM) - Next Generation Capability Development	C/Various	Various : Various	-	-		2.327	Jun 2022	5.549	Jun 2023	-		5.549	Continuing	Continuing	-
Counter Unmanned Aerial System (C-UAS) Emerging Threat /Advanced Technology Development (Systems Integration Partner)	C/Various	Various : Various	2.551	-		3.689	Mar 2022	2.661	Jun 2023	-		2.661	Continuing	Continuing	-
C-UAS Emerging Threat / Advanced Technology Development (Systems Integration Partner) (OCO)	C/Various	Various : Various	-	3.527	Apr 2021	-		-		-		-	0.000	3.527	-
C-UAS Emerging Threat / Advanced Technology Development (Systems Integration Partner) Congressional Add	C/Various	Various : Various	-	-		6.069	Jul 2022	-		-		-	0.000	6.069	-

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S385 / Soldier Protection and Survival Systems</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Personal Signature Management (PSM) Development (Inc II and III)	Various	Various : Various	1.546	0.830	Mar 2021	1.040	Mar 2022	0.675	Mar 2023	-		0.675	Continuing	Continuing	-
Rotary Wing Aviation Helmet Congressional Add	C/Various	PM-SSES : Natick, MA	1.500	-		-		-		-		-	0.000	1.500	-
Prior Years	Various	Various : Various	1.656	-		-		-		-		-	0.000	1.656	-
Prior Years - Overseas Contingency Operations (OCO)	Various	Various : Various	7.293	-		-		-		-		-	0.000	7.293	-
<b>Subtotal</b>			16.800	5.142		14.714		10.445		-		10.445	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SPEAR - PCU testing/ Pre-Planned Product Improvement	Various	PM-SSES : Natick, MA	0.605	0.100	Mar 2021	0.100	Mar 2022	0.100	Mar 2023	-		0.100	Continuing	Continuing	-
SPEAR - MGS Test and Evaluation	Various	PM-SSES : Natick, MA	0.109	0.045	Jan 2021	0.045	Jan 2022	0.045	Jan 2023	-		0.045	Continuing	Continuing	-
SPEAR - Hearing Protection and Comms Headset Test & Evaluation	Various	PM-SSES : Natick, MA	1.936	0.162	Jan 2021	0.162	Jan 2022	0.162	Jan 2023	-		0.162	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Test and Evaluation	Various	PM-SSES : Natick, MA	0.165	0.095	Feb 2021	0.095	Feb 2022	0.095	Feb 2023	-		0.095	Continuing	Continuing	-
SPEAR - Power and Data Management	Various	PM-SSES : Natick, MA	-	-		0.989	Apr 2022	0.989	Apr 2023	-		0.989	Continuing	Continuing	-
Tactical Combat Casualty Care (TCCC) CASEVAC Sets Development, Test and Evaluation	Various	PM-SSES : Natick, MA	1.970	0.221	Jan 2021	0.209	Jan 2022	0.205	Jan 2023	-		0.205	Continuing	Continuing	-

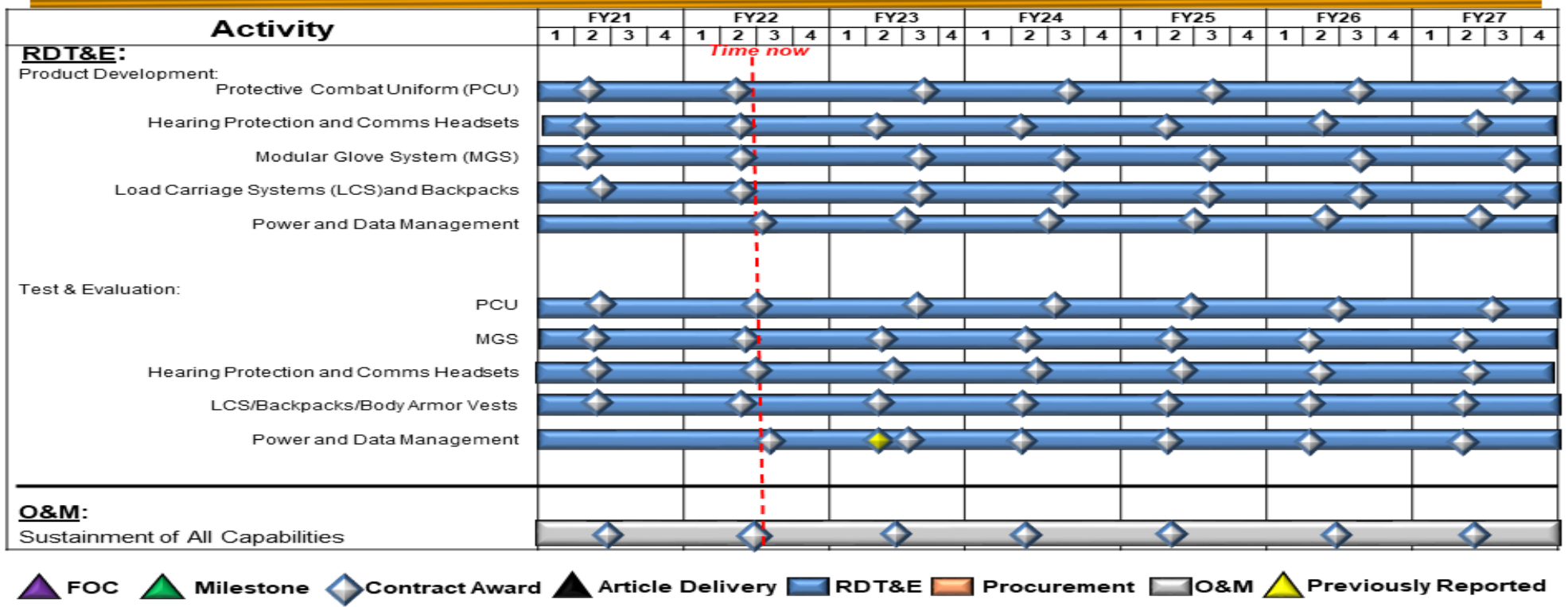




**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> S385 / Soldier Protection and Survival Systems

## Special Operations Forces Personal Equipment Advanced Requirements (SPEAR) Schedule



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 United States Special Operations Command

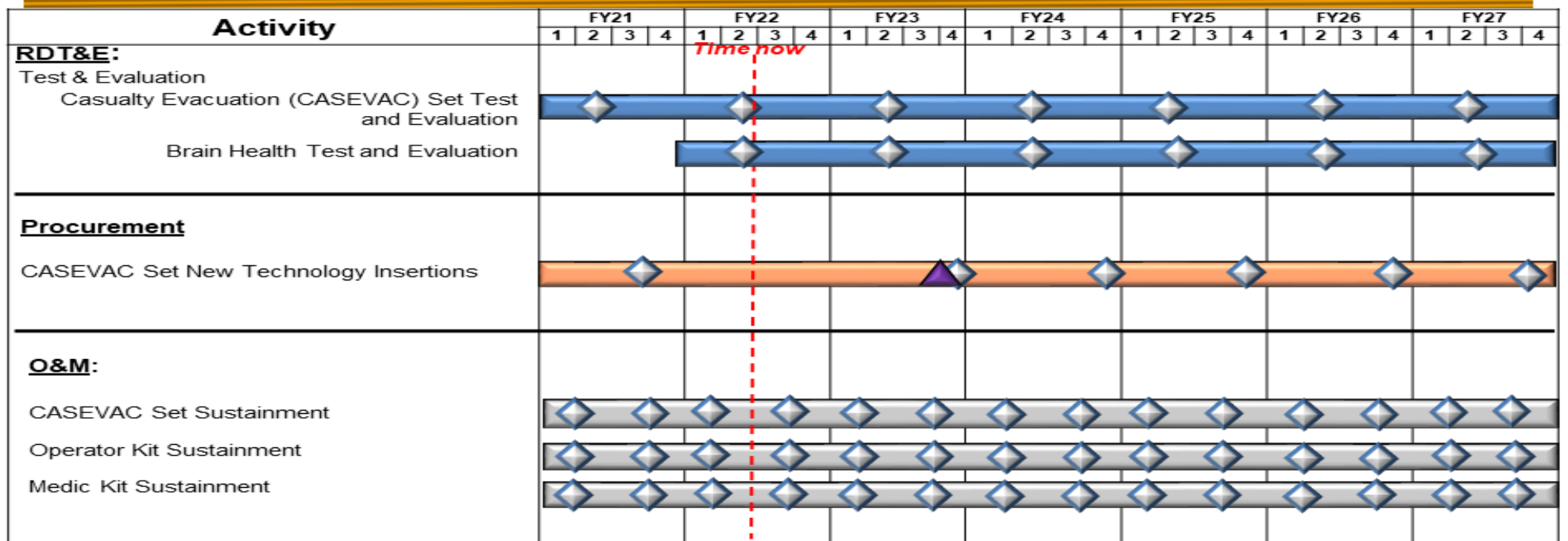
**Date:** April 2022

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160431BB / Warrior Systems

**Project (Number/Name)**  
S385 / Soldier Protection and Survival Systems

## Tactical Combat Casualty Care (TCCC) Schedule

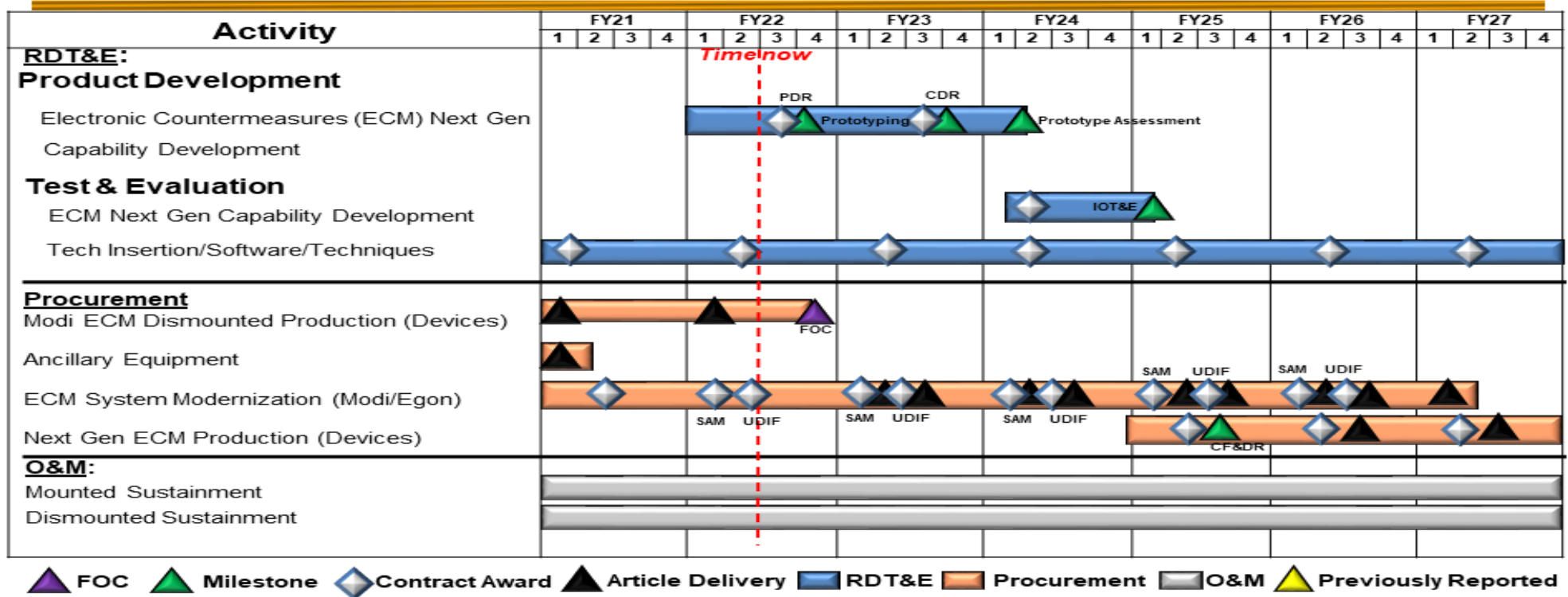


▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S385 / Soldier Protection and Survival Systems

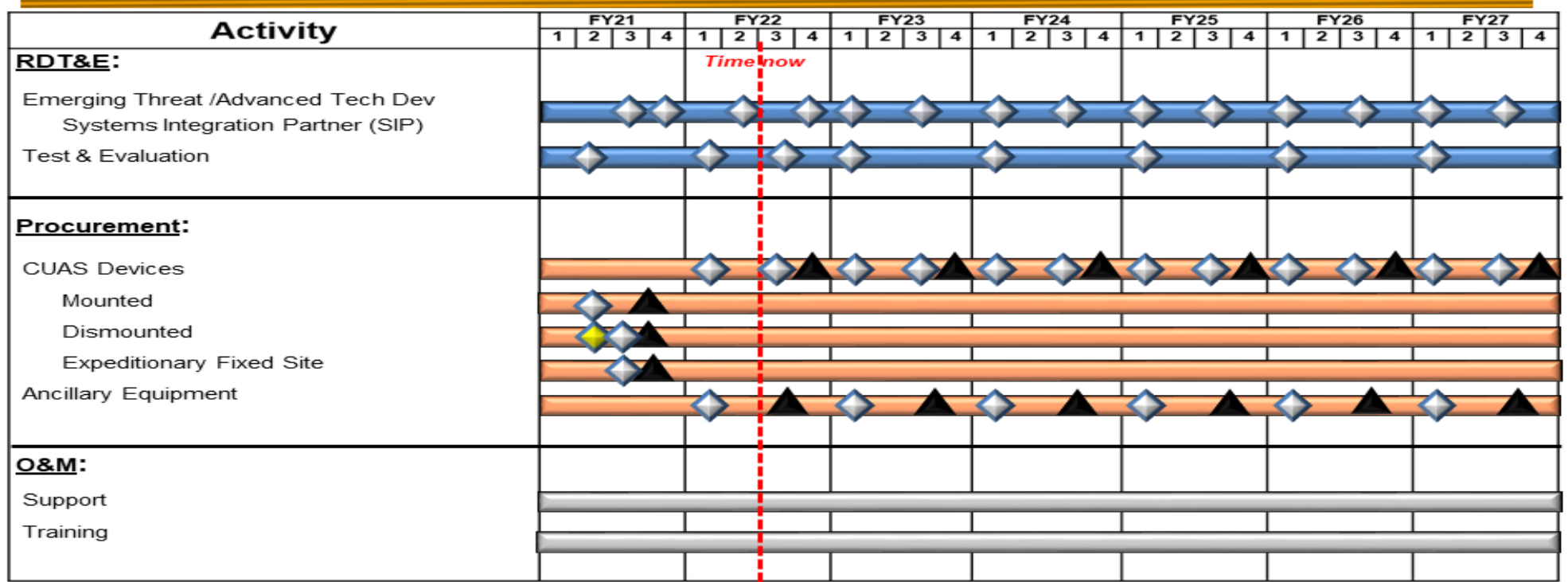
## Multi-Mission Electronic Countermeasures (MM-ECM) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> S385 / Soldier Protection and Survival Systems

## Counter Unmanned Aerial Systems Schedule



▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 United States Special Operations Command

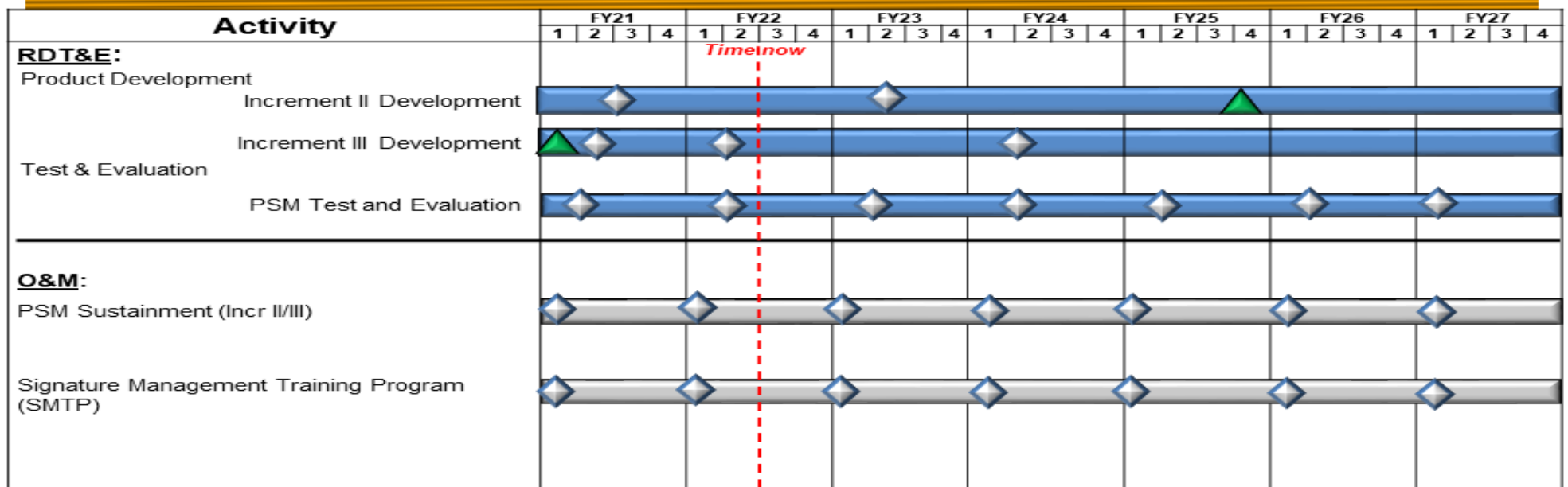
**Date:** April 2022

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160431BB / Warrior Systems

**Project (Number/Name)**  
S385 / Soldier Protection and Survival Systems

# Personal Signature Management (PSM) Schedule



▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Soldier Protection and Survival Systems (SPEAR)</i></b>				
Protective Combat Uniform (PCU) Product Development	1	2021	4	2027
Hearing Protection & Comms Headsets Product Development	1	2021	4	2027
Modular Glove System (MGS) Product Development	1	2021	4	2027
Load Carriage System (LCS) and Backpacks Product Development	1	2021	4	2027
Power and Data Management Product Development	1	2021	4	2027
PCU Test & Evaluation	1	2021	4	2027
MGS Test & Evaluation	1	2021	4	2027
Hearing Protection & Comms Headsets Test & Evaluation	1	2021	4	2027
LCS/Backpack/Body Armor Vest Test & Evaluation	1	2021	4	2027
Power and Data Management Test & Evaluation	1	2021	4	2027
<b><i>Tactical Combat Casualty Care (TCCC)</i></b>				
TCCC Casualty Evacuation (CASEVAC) Sets Development, Test & Evaluation	1	2021	4	2027
TCCC Brain Health Test and Evaluation	4	2021	4	2027
<b><i>Multi-Mission Electronic Countermeasures (MM-ECM)</i></b>				
Next Generation Electronic Countermeasures (ECM) Capability Development (Product Development)	1	2022	2	2024
Next Generation ECM Capability Development (Test & Evaluation Support)	1	2024	1	2025
Technology Insertion/Software/Techniques (Test & Evaluation Support)	1	2021	4	2027
<b><i>Counter Unmanned Aerial System (C-UAS)</i></b>				
C-UAS Emerging Threat /Advanced Technology Development (Systems Integration Partner)	1	2021	4	2027
C-UAS Test and Evaluation Support	1	2021	4	2027

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>
--	---	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Personnel Signature Management (PSM)</i></b>				
PSM Development (Incr II)	1	2021	4	2027
PSM Development (Incr III)	1	2021	4	2027
PSM Test & Evaluation	1	2021	4	2027



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S385A: <i>Body Armor and Associated Equipment</i>	9.596	1.674	1.684	1.688	-	1.688	1.773	1.800	1.825	1.862	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides specialized equipment to meet the unique operator protection and survival requirements of SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized ballistic equipment improves survivability impacting the mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> SOF Personal Equipment Advanced Requirement (SPEAR)-Ballistic Protection	1.674	1.684	1.688
<b>Description:</b> This project enhances the SPEAR program by supporting body armor, helmets, and eye protection. It also provides for the research, development, and testing of a variety of body armor and personal protective equipment.			
<b>FY 2022 Plans:</b> Continue foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continue development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continue evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded. Continue development and testing of technologies to upgrade the maritime crewman and rotary wing helmet.			
<b>FY 2023 Plans:</b> Continues foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continues development and testing of lightweight body armor and helmets (ground, maritime, rotary wing) to upgrade systems that have been fielded. Continues evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.004 million is due to miscellaneous adjustments.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.674	1.684	1.688

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command			<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	<u>Total Cost</u>
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	
• PROC/0204WARRIOR: <i>Warrior Systems &lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The SPEAR ballistic protection equipment takes advantage of modified commercial-off-the-shelf (COTS) or non-developmental items. As USSOCOM requires tailored solutions for SOF Mission sets, SPEAR items leveraged from industry are often on the cutting edge of technology with modifications specific for SOF missions and require substantial testing in SOF environments. Using SOFSA for warehousing and sustainment, PM - SOF SSES has cradle to grave responsibility. Contracts in support of SPEAR are a combination of Firm Fixed Price five year Indefinite Delivery Indefinite Quantity with single vendor awards, Source America mandatory sole sources, small business set asides, and prime vendor style multiple award contracts.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	3.037	0.377	Feb 2021	0.556	Feb 2022	0.325	Apr 2023	-		0.325	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	2.096	0.368	Jan 2021	0.390	Feb 2022	0.625	May 2023	-		0.625	Continuing	Continuing	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.357	0.100	Mar 2021	0.060	Mar 2022	0.173	Jun 2023	-		0.173	Continuing	Continuing	-
<b>Subtotal</b>			5.490	0.845		1.006		1.123		-		1.123	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SPEAR - Body Armor	Various	PM-SSES : Natick, MA	2.212	0.367	Apr 2021	0.378	Jun 2022	0.150	May 2023	-		0.150	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmet	Various	PM-SSES : Natick, MA	1.637	0.367	Apr 2021	0.260	Jun 2022	0.350	Jun 2023	-		0.350	Continuing	Continuing	-
SPEAR - Transparent Armor	Various	PM-SSES : Natick, MA	0.257	0.095	Mar 2021	0.040	Mar 2022	0.065	Jul 2023	-		0.065	Continuing	Continuing	-
<b>Subtotal</b>			4.106	0.829		0.678		0.565		-		0.565	Continuing	Continuing	N/A

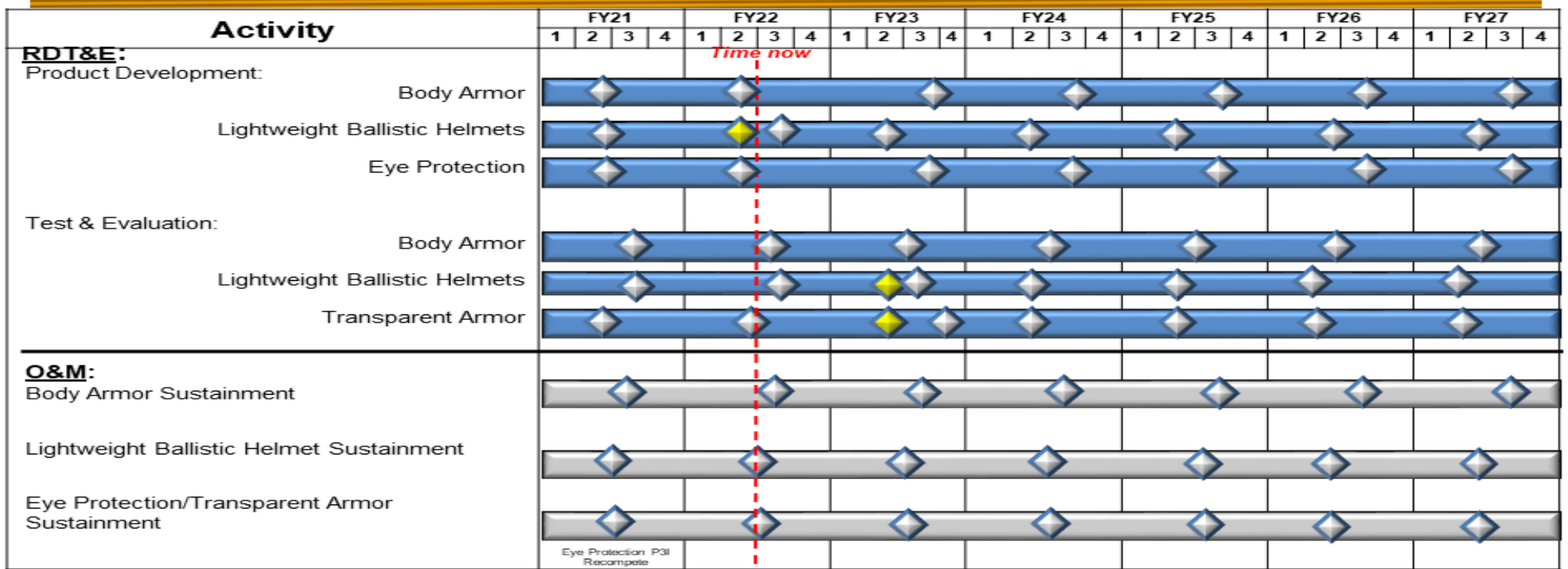
	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		9.596	1.674	1.684	1.688	-	1.688	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>

## Special Operations Forces Personal Equipment Advanced Requirements (SPEAR) - Body Armor Schedule



▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Personal Equipment Advanced Requirement (SPEAR)-Ballistic Protection</i></b>				
Body Armor Product Development	1	2021	4	2027
Lightweight Ballistic Helmets Product Development	1	2021	4	2027
Eye Protection Product Development	1	2021	4	2027
Body Armor Test & Evaluation	1	2021	4	2027
Lightweight Ballistic Helmets Test & Evaluation	1	2021	4	2027
Transparent Armor Test & Evaluation	1	2021	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	16.812	2.092	5.047	4.990	-	4.990	5.152	5.188	5.198	5.301	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for development, testing and integration of specialized visual augmentation, binocular and monocular night vision devices, laser markers, laser designators, geo-location systems, weapon optics, weapon aiming lasers, sensor systems, visible lights, infrared imagers, clandestine pointers, simulators and accessories to meet the unique requirements of Special Operations Forces (SOF). These projects ensure SOF hyper-enabled operators (HEO) will remain technologically superior to enemy threats and ensure mission success.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Visual Augmentation Systems (VAS)	2.092	5.047	4.990
<p><b>Description:</b> Sensor technologies being developed include image intensification thermal imaging, short wave infrared, multi-spectral, fusion, and other sensor types. Developments will decrease weight, increase range, increase situational awareness, provide data, image processing, image filtering, determine wind speed, observe bullet trace, and sensor fusion to be able to detect, identify, classify and engage targets at greater ranges. Some efforts may be tied to HEO.</p> <p><b>FY 2022 Plans:</b> Continue development and testing of visual augmentation, laser devices, and continue development and testing of simulators to improve situational awareness, sharing of data/images, target acquisition, and training. Initiate transition of an integrated head-mounted sensor and augmented reality display providing threat detection from the Joint Acquisition Task Force (JATF) to USSOCOM and the HEO program. Real-time shared imaging and sensor discovery with distributed algorithm processing of a common operating picture.</p> <p><b>FY 2023 Plans:</b> Continues development and testing of visual augmentation systems, laser devices, and simulators to improve situational awareness, sharing of data/images, target acquisition, and training. Continues System Integration/HEO development to include integrated head-mounted sensors and augmented reality displays providing enhanced threat detection. Real-time, shared imaging and sensor discovery with distributed algorithm processing for a common operating picture. Ability to significantly increase the speed and effectiveness of our operators through SOF expeditionary equipment and networks to provide the force with more lethal and decisive effects.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Decrease of \$0.057 million is due to a miscellaneous adjustment.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.092	5.047	4.990

**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Evolutionary acquisition and leveraging emerging technologies. An evolutionary approach delivers capability in increments, recognizing up front the need for future capability improvements. Full and open competition contracts are a combination of five-year FFP, IDIQ and small business set asides at several locations, primarily via Naval Surface Warfare Center, Crane Contracting Office, USSOCOM Contracting Office, and other contracting offices.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Visual Augmentation Systems (VAS) Product Development (Laser and Optic)	C/CPFF	USSOCOM : Tampa, FL	10.448	0.921	Apr 2021	4.367	Mar 2022	4.339	Jan 2023	-		4.339	Continuing	Continuing	-
VAS Product Development (Simulator)	C/CPFF	USSOCOM : Tampa, FL	1.492	0.481	Apr 2021	0.480	Apr 2022	0.481	Feb 2023	-		0.481	Continuing	Continuing	-
Prior Year	C/CPFF	USSOCOM : Tampa, FL	1.500	-		-		-		-		-	0.000	1.500	-
Prior Year Overseas Contingency Operations (OCO)	C/CPFF	USSOCOM : Tampa, FL	2.667	-		-		-		-		-	0.000	2.667	-
<b>Subtotal</b>			16.107	1.402		4.847		4.820		-		4.820	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
VAS Test and Evaluation	C/CPFF	USSOCOM : Tampa, FL	0.495	-		-		-		-		-	0.000	0.495	-
VAS Laser Test and Evaluation	C/CPFF	USSOCOM : Tampa FL	0.105	0.345	Apr 2021	0.100	Sep 2022	0.085	Aug 2023	-		0.085	Continuing	Continuing	-
VAS Optic Test and Evaluation	C/CPFF	USSOCOM : Tampa FL	0.105	0.345	Apr 2021	0.100	Sep 2022	0.085	Aug 2023	-		0.085	Continuing	Continuing	-
<b>Subtotal</b>			0.705	0.690		0.200		0.170		-		0.170	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		16.812	2.092	5.047	4.990	-	4.990	Continuing	Continuing	N/A

**Remarks**



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 United States Special Operations Command

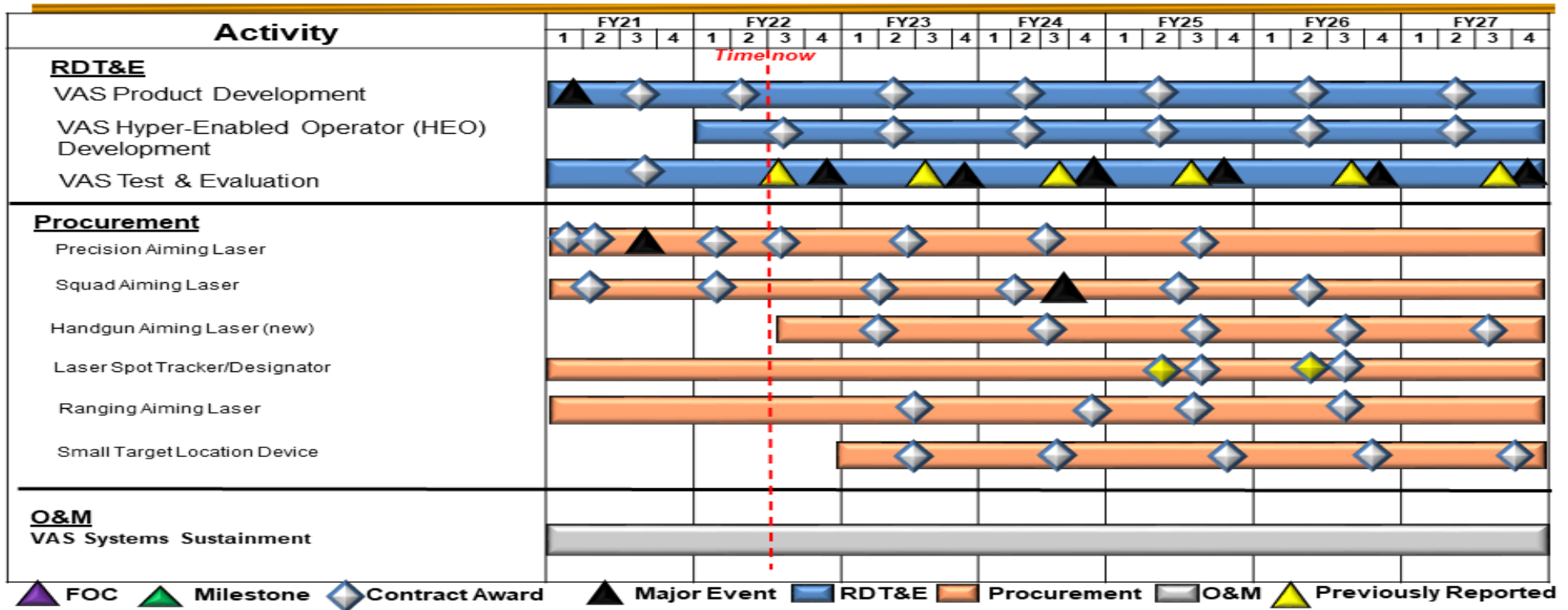
**Date:** April 2022

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160431BB / *Warrior Systems*

**Project (Number/Name)**  
S395 / *Visual Augmentation, Lasers and Sensor Systems*

# Visual Augmentation Systems Laser Schedule

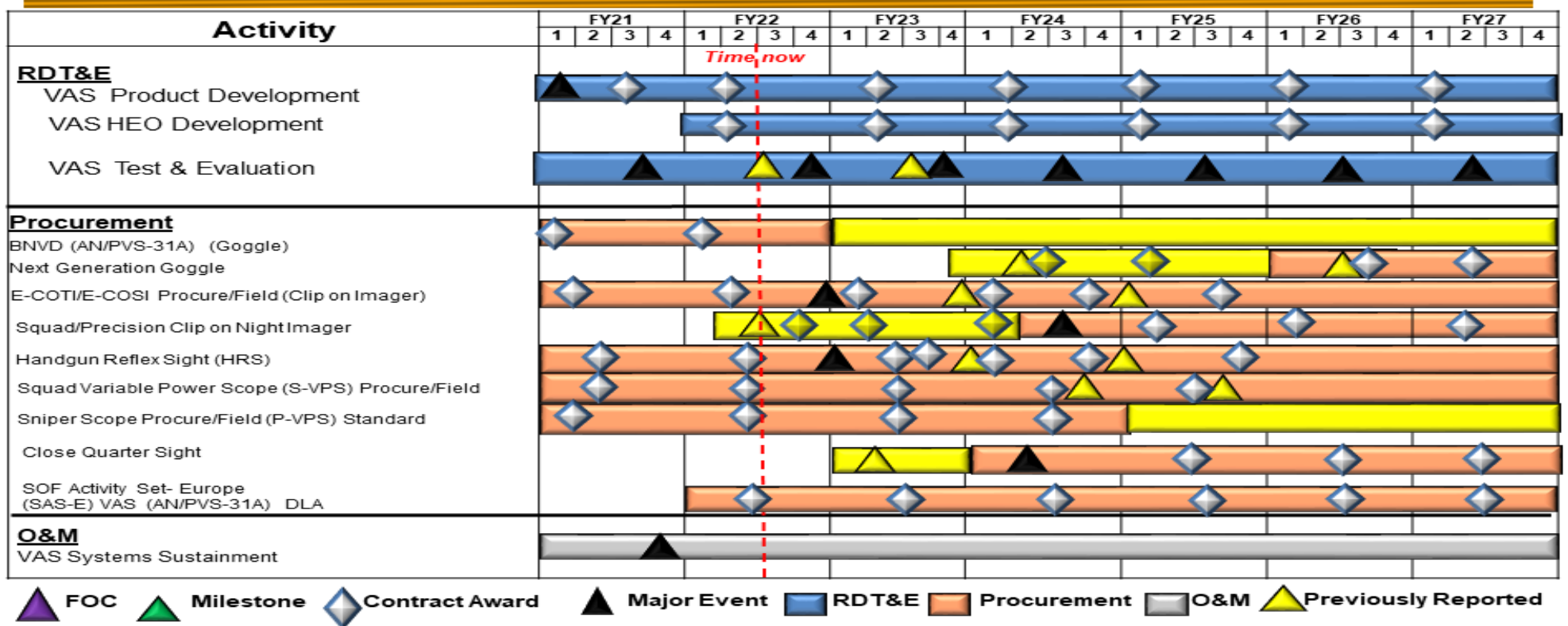


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S395 / Visual Augmentation, Lasers and Sensor Systems

# Visual Augmentation Systems Optic Schedule

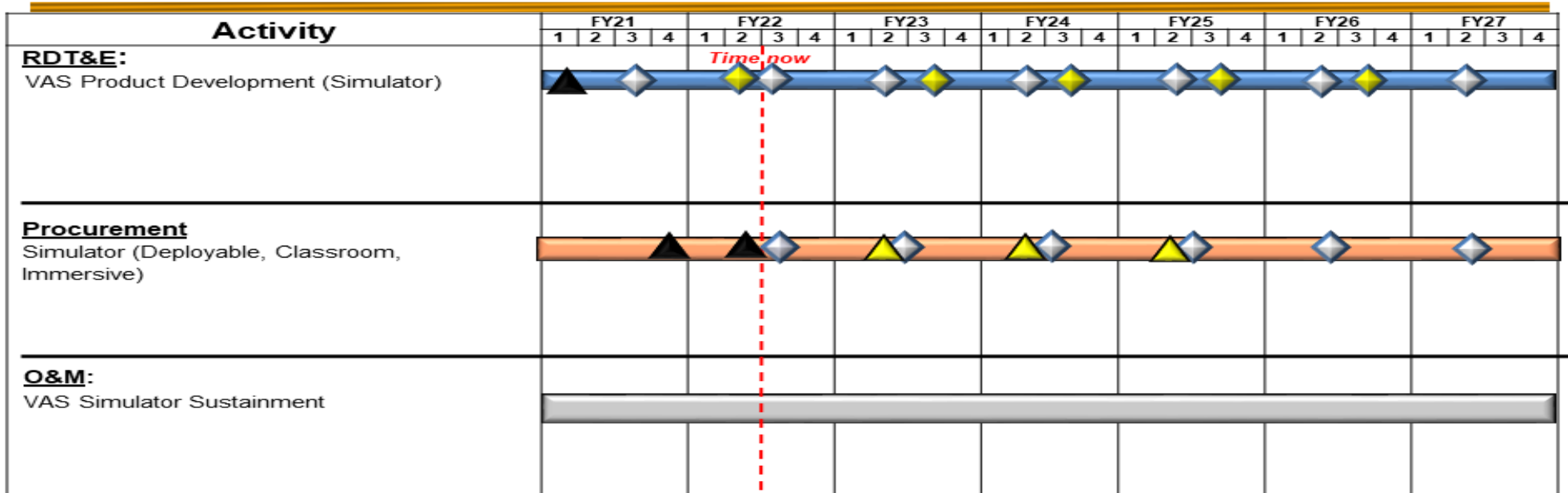


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S395 / Visual Augmentation, Lasers and  
Sensor Systems

# Visual Augmentation Systems Simulator Schedule



▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Visual Augmentation Systems (VAS) Laser</i></b>				
Product Development	1	2021	4	2027
Hyper-Enabled Operator Development (HEO)	1	2022	4	2027
Test & Evaluation	1	2021	4	2027
<b><i>VAS Optic</i></b>				
Product Development	1	2021	4	2027
Hyper-Enabled Operator Development (HEO)	1	2022	4	2027
Test & Evaluation	1	2021	4	2027
<b><i>VAS Simulator</i></b>				
Product Development	1	2021	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S700: <i>Communications Equipment and Electronics Systems</i>	60.999	28.356	21.456	48.665	-	48.665	49.902	24.013	16.204	23.070	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for communication systems to meet emergent requirements to support SOF. Communications Equipment and Electronics Systems is a continuing effort to develop smaller, lighter, more efficient and more robust SOF command, control, communications, and computer (C4) capabilities.

The USSOCOM C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4 systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Satellite Deployable Node (SDN)	13.151	5.634	3.825
<b>Description:</b> The SDN is a family of deployable, super high frequency, multi-band, satellite communications (SATCOM) systems providing the transport path for high-capacity, voice, data, video teleconferencing (VTC), and full motion video (FMV) at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and Capital Equipment replacement.			
<b>FY 2022 Plans:</b> Continue assessments, tests, and evaluations for wide-band Communication-On-The-Move (COTM) maritime, ground mobile, and airborne technologies. Continue assessments in Size, Weight and Power (SWAP) reduction across all SDN systems. Continue evaluation of High Throughput Satellite (HTS) constellations and terminals. Continue evaluation of resilience of systems in a degraded communications environment.			
<b>FY 2023 Plans:</b> Continues assessments, tests, and evaluations for wide-band COTM maritime, ground mobile, and airborne technologies. Continues assessments in SWAP reduction across all SDN systems. Continues evaluation of HTS constellations and terminals. Continues evaluation of resilience of systems in a degraded communications environment.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Decrease of \$1.809 million supports a deliberate approach to reinvest in modernization and advance the transition of special operations capabilities to support integrated deterrence and implement the Joint Warfighting Concept.				
<p><b>Title:</b> Special Communications (SPCOM) Enterprise program</p> <p><b>Description:</b> The SPCOM Enterprise includes organizations, practices, processes, services, networks, systems and subsystems that manage and provide clandestine exchange of information between elements (field-to-field, field-to-base, base-to-field) for worldwide deployed SOF units, often in austere environments with heavy adversarial monitoring. Acquisition efforts are structured for rapid, tailored development to counter adaptable emerging threats in all theaters of SOF sensitive missions.</p> <p><b>FY 2022 Plans:</b> Continue segment development for the SPCOM enterprise; develop means and methods to provide near-term impact to operators. Continue development of anti-intrusion/anti-tamper capabilities. Continue extensive vulnerability assessments plus independent verification and validation. Acquisition efforts are structured for rapid, tailored development to counter adaptable emerging threats in all theaters of SOF sensitive missions.</p> <p><b>FY 2023 Plans:</b> Continues segment development for the SPCOM enterprise; includes field set and waveform development with a focus on supporting operations in highly contested and/or denied environments for the SPCOM enterprise. Continues development of anti-intrusion/anti-tamper capabilities to reduce signature and protect in the event of a compromise. Continues tailoring extensive vulnerability assessments plus independent verification and validation to mimic nation state level threats. Acquisition efforts are structured to support rapid, tailored development to counter adaptable emerging threats targeting active and/or planned operations in all theaters of SOF sensitive missions.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$1.181 million supports development of enhanced processing for special communications satellite devices.</p>		10.793	11.220	12.401
<p><b>Title:</b> Mission Command System/Common Operational Picture (MCS/COP)</p> <p><b>Description:</b> The MCS/COP provides shared situational awareness for SOF Commanders across all domains at the tactical, operational, and strategic levels. The MCS/COP delivers a near-real time operational understanding of the intelligence and operational environment to support decision making.</p> <p><b>FY 2022 Plans:</b> Continue rapid prototyping, product development, and operational testing and evaluation based upon dynamic and emergent operational requirements.</p> <p><b>FY 2023 Plans:</b></p>		4.412	4.602	32.439

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continues and greatly expands the range of prototype and product development software solutions under a modular open systems architecture. Continues operational testing and evaluation based on dynamic and emergent operational requirements.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$27.837 million enables rapid development of Mission Command capabilities focused on modernization in support of Command Joint All-Domain Command & Control (JADC2) requirements for DoD interoperability and SOF support to integrated deterrence. This includes development of artificial intelligence/machine learning algorithms, a SOF unified data layer, advanced data analytics and Denied – Disconnected, Intermittent, Limited (D-DIL) hardware and software capabilities.			
<b>Accomplishments/Planned Programs Subtotals</b>	28.356	21.456	48.665

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204WARRIOR: <i>Warrior Systems &lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing
• PROC/0204OTHER: <i>OTHER ITEMS &lt;\$5M</i>	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The SDN is a fielded program with Evolutionary Technology Insertions (ETI) into all variants: Heavy, Medium, and Light, and wide-band COTM. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

The SPCOM is an ETI effort to provide and support multiple field mission sets fully integrated with secure transports for complete end-to end capabilities. In particular, rapid, phased prototyping is prioritized to both develop operationally-relevant prototypes but also to be flexible and agile in ensuring countermeasures against dynamically adapting special communication threats in all theaters. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

The MCS/COP program employs the software acquisition pathway to facilitate rapid and iterative delivery of operational software to meet dynamic SOF requirements. The MCS/COP implements a modular open systems architecture that leverages commercial and government sources to quickly deploy evolving technologies for decision support such as artificial intelligence, three dimensional (3D) virtual reality, and computer vision for advanced fusion and battlespace visualization.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S700 / Communications Equipment and Electronics Systems</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Satellite Deployable Node (SDN) Development	Various	Various : Various	17.740	6.576	Jan 2021	1.125	Dec 2021	2.375	Feb 2023	-		2.375	Continuing	Continuing	-
Special Communications (SPCOM) Enterprise Capability Development	C/Various	Various : Various	21.443	8.996	Mar 2021	9.220	May 2022	10.501	May 2023	-		10.501	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	4.254	1.424	Dec 2020	1.600	Apr 2022	1.400	Dec 2022	-		1.400	Continuing	Continuing	-
Mission Command System Common Operational Picture (MCS/COP) Prototype and Product Development	C/Various	Various : Various	-	2.292	Apr 2021	3.500	Mar 2022	10.000	Mar 2023	-		10.000	Continuing	Continuing	-
MCS/COP Modular Open Systems Architecture	C/Various	CAE : Various	-	-		-		8.039	Mar 2023	-		8.039	Continuing	Continuing	-
MCS/COP Artificial Intelligence Analytics	C/FFP	BlackCape : Various	-	-		-		6.000	Jun 2023	-		6.000	Continuing	Continuing	-
MCS/COP Unified Data Layer	MIPR	BlueStaq : Various	-	-		-		6.000	Mar 2023	-		6.000	Continuing	Continuing	-
Prior Year Funding - Base	C/Various	Various : Various	1.788	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			45.225	19.288		15.445		44.315		-		44.315	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDN Evaluation and Testing	Various	Various : Various	13.789	6.575	Feb 2021	4.509	Dec 2021	1.450	Dec 2022	-		1.450	Continuing	Continuing	-
SPCOM Independent Verification and Validation	MIPR	OTC : Ft. Huachuca, AZ	1.985	0.373	Dec 2020	0.400	Apr 2022	0.500	Dec 2022	-		0.500	Continuing	Continuing	-
MCS/COP	C/Various	Various : Various	-	2.120	Apr 2021	1.102	Mar 2022	2.400	Mar 2023	-		2.400	Continuing	Continuing	-
<b>Subtotal</b>			15.774	9.068		6.011		4.350		-		4.350	Continuing	Continuing	N/A

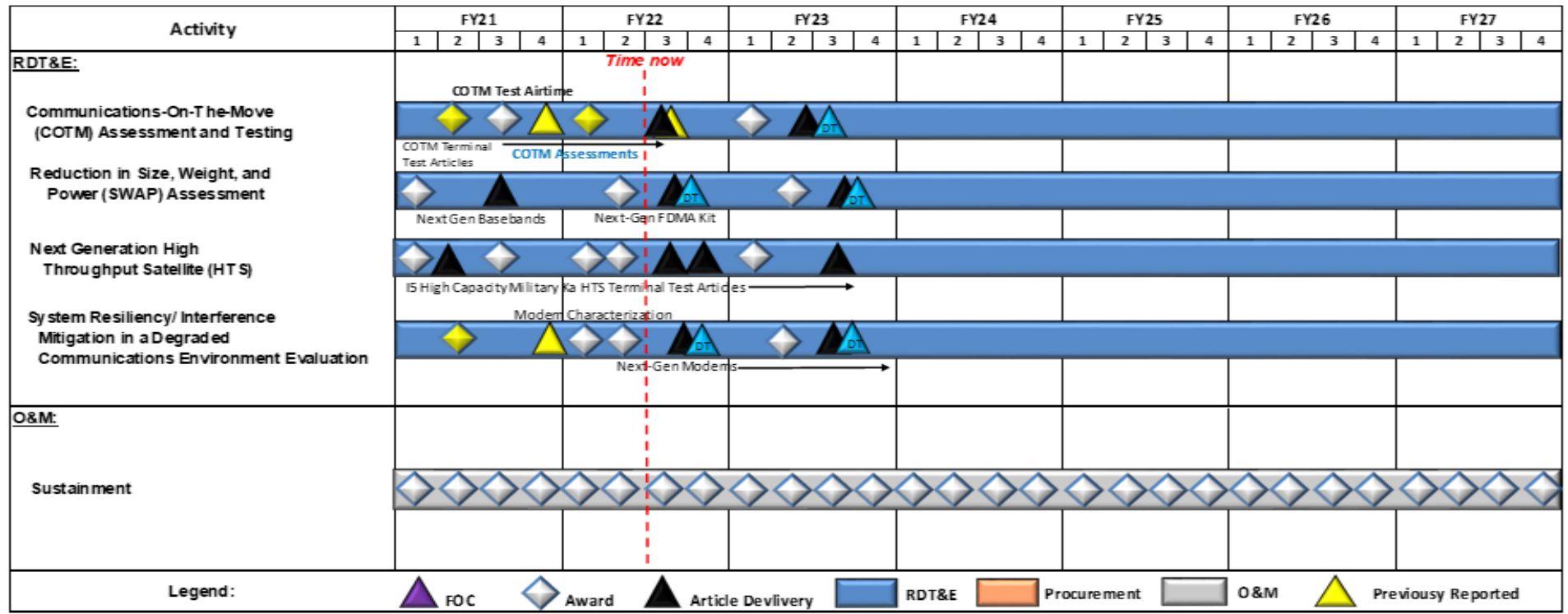




**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

# Satellite Deployable Node (SDN) Schedule



UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S700 / Communications Equipment and  
Electronics Systems

# SDN Schedule (con't)

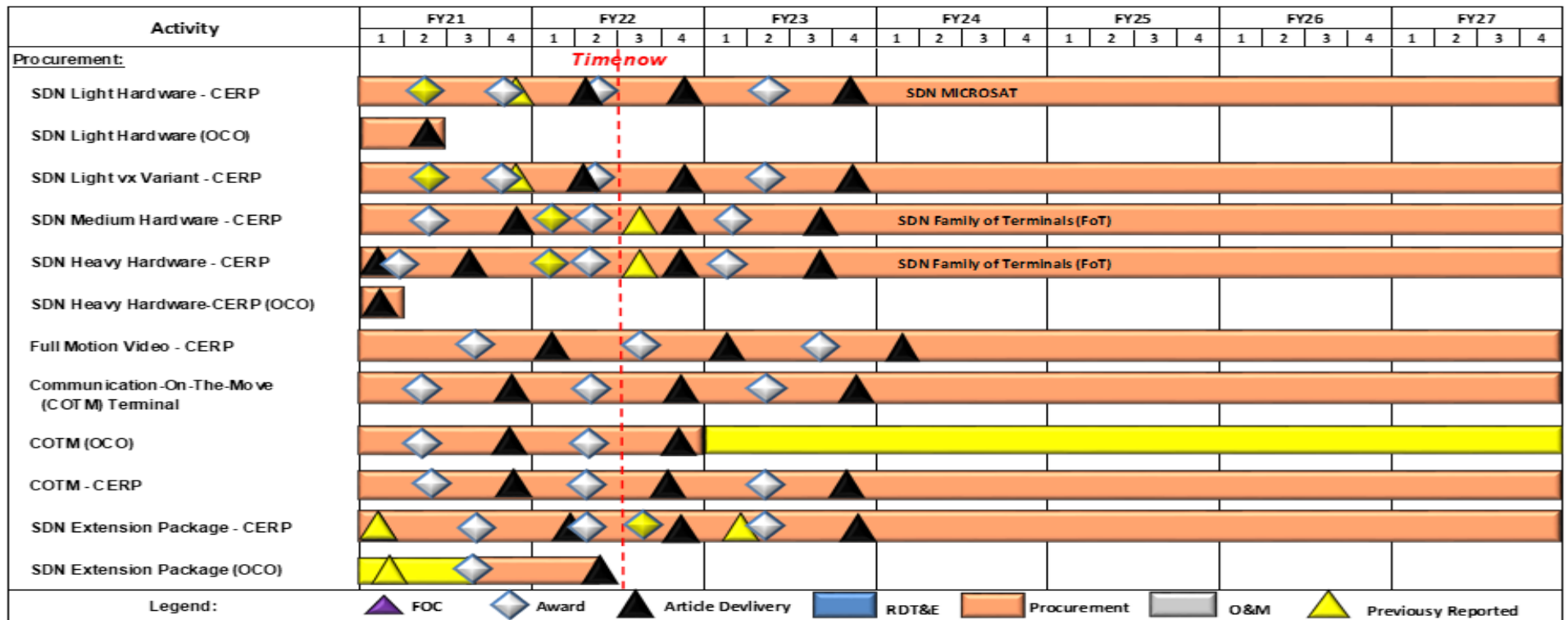
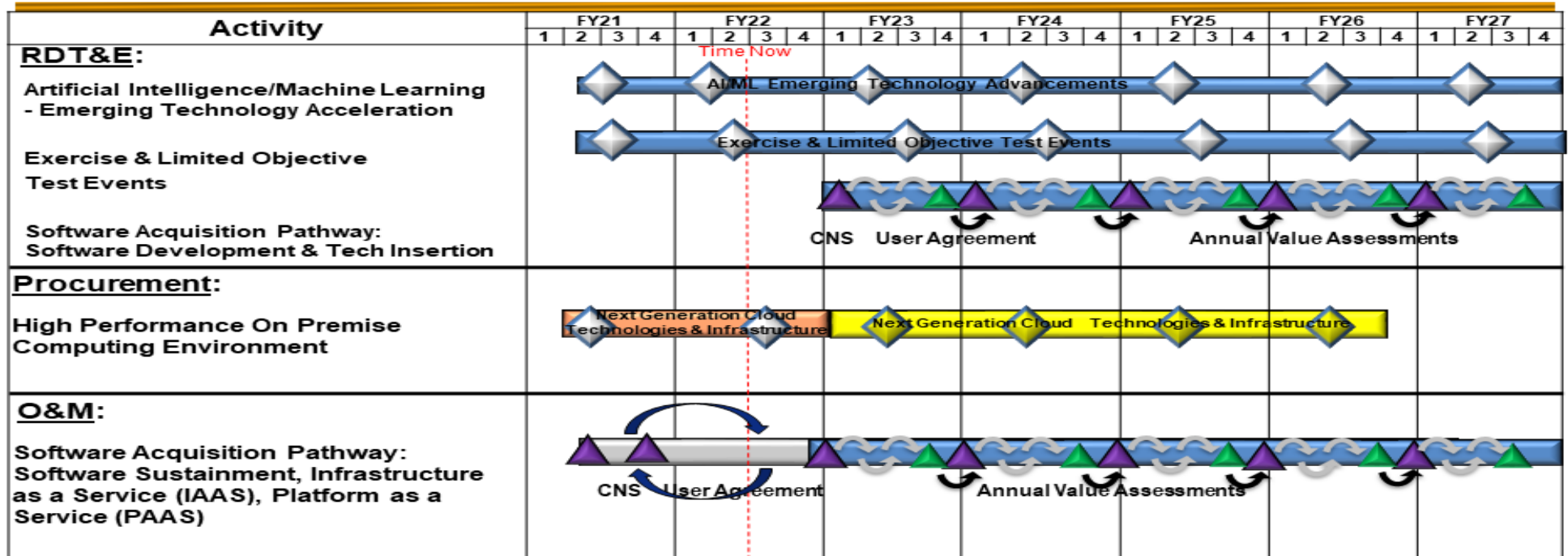




Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command		Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems

## Mission Command System (MCS) / Common Operational Picture (COP) Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Satellite Deployable Node (SDN)</i></b>				
Communication-on-the-Move (COTM) Assessment & Testing	1	2021	4	2027
Reduction in Size, Weight, and Power (SWaP)	1	2021	4	2027
Next Generation High Throughput (HTS) Satellite	1	2021	4	2027
System Resiliency / Interference Mitigation in Degraded Communications Environment Evaluation	1	2021	4	2027
<b><i>Special Communications (SPCOM) Enterprise Program</i></b>				
Transport - Field Segment Kit Development and Testing/Vulnerability Assessments	1	2021	4	2027
Enterprise Segment Development and Testing/Vulnerability Assessments	1	2021	4	2027
<b><i>Mission Command System/Common Operational (MCS/COP)</i></b>				
Artificial Intelligence/Machine Learning (AI/ML) - Emerging Technology Acceleration	2	2021	4	2027
Exercise & Limited Objective Test Events	2	2021	4	2027
Software Acquisition Pathway: Software Development & Tech Insertion	1	2023	4	2027

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S710: <i>Tactical Systems Development</i>	9.912	3.222	14.331	21.736	-	21.736	25.597	26.683	25.191	27.417	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Tactical Local Area Network (TACLAN)</p> <p><b>Description:</b> The TACLAN provides SOF operational commanders and forward deployed forces advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control of forces. The TACLAN consists of Suites, Mission Planning Kits, Field Computing Devices (FCD), and Tactical Work Stations.</p> <p><b>FY 2022 Plans:</b> Continue integration and testing of Evolutionary Technology Insertions (ETIs) for TACLAN FCD and Network Management Suite upgrades. Complete the development of Mobile Edge Computing capabilities for integration and assessment in the TACLAN Family of Systems.</p> <p><b>FY 2023 Plans:</b> Continues integration and testing of ETIs for TACLAN FCD and Network Management Suite upgrades. Begins the development of Graphical Processing Unit (GPU) computing capabilities for the integration and assessment of the TACLAN suites.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.587 million supports emerging critical command requirements.</p>	3.222	3.068	2.481
<p><b>Title:</b> Classified Sub-project</p> <p><b>Description:</b> Classified Sub-project (provided under separate cover).</p> <p><b>FY 2022 Plans:</b></p>	-	3.263	19.255

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
Details provided under separate cover.			
<b><i>FY 2023 Plans:</i></b> Details provided under separate cover.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$15.992 million will be provided under separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.222	6.331	21.736

	FY 2021	FY 2022
<b><i>Congressional Add:</i></b> Special Operations Fused Global Data Analytics and Visualization	-	8.000
<b><i>FY 2022 Plans:</i></b> Details provided under separate cover.		
<b>Congressional Adds Subtotals</b>	-	8.000

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204OTHER: OTHER ITEMS <\$5M	82.776	55.722	98.096	-	98.096	131.156	88.698	93.486	125.880	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

TACLAN - The TACLAN evolutionary acquisition strategy includes the use of commercial and government agency sources that will be leveraged for required certifications, functional and operational test, and acceptance support.



**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Tactical Local Area Network (TACLAN) Graphical Processing Unit (GPC)	Reqn	Raven Tek : Tampa, FL	-	-		-		1.249	Mar 2023	-		1.249	Continuing	Continuing	-
Classified Sub-project	C/FFP	Various : Various	-	-	3.263			19.255		-		19.255	Continuing	Continuing	-
Classified Sub-project Congressional Add	C/FFP	Various : Various	-	-	8.000			-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		11.263		20.504		-		20.504	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
TACLAN Evolutionary Technology Insertions (ETIs)	Reqn	Raven Tek : Tampa, FL	4.387	1.378	Mar 2021	3.068	Mar 2022	1.000	Mar 2023	-		1.000	Continuing	Continuing	-
Network Management Suite ETIs	Reqn	Raven Tek : Tampa, FL	3.975	1.294	Feb 2021	-		0.232	Apr 2023	-		0.232	Continuing	Continuing	-
Mobile Edge Computing	Reqn	Raven Tek : Tampa, FL	0.550	0.550	Aug 2021	-		-		-		-	0.000	1.100	-
Prior Year	C/Various	Various : Various	1.000	-		-		-		-		-	0.000	1.000	-
<b>Subtotal</b>			9.912	3.222		3.068		1.232		-		1.232	Continuing	Continuing	N/A

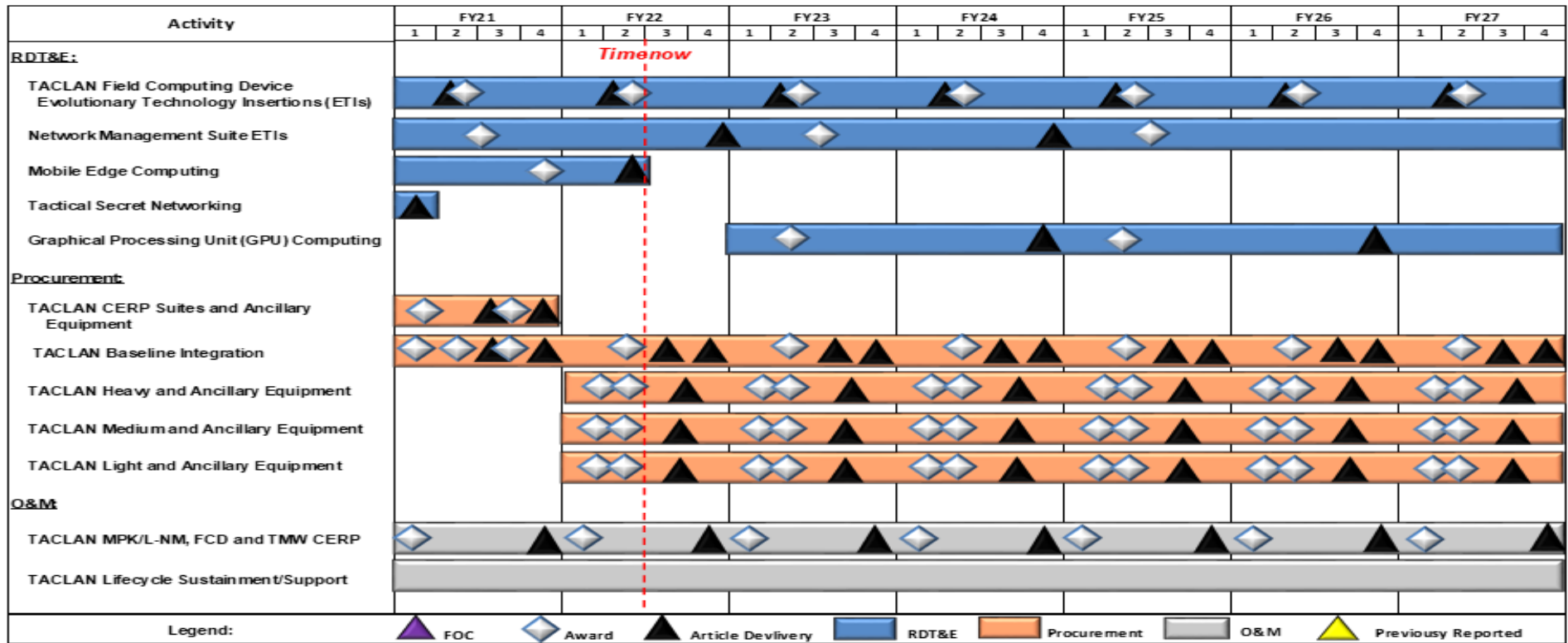
	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract		
<b>Project Cost Totals</b>		9.912	3.222	14.331	21.736	-		21.736	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 United States Special Operations Command</b>		<b>Date: April 2022</b>
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>

# Tactical Local Area Network (TACLAN) Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
--	---	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Tactical Local Area Network (TACLAN) Suites</i></b>				
TACLAN Field Computing Device (FCD) Evolutionary Technology Insertions (ETIs)	1	2021	4	2027
Network Management Suite ETIs	1	2021	4	2027
Mobile Edge Computing	1	2021	2	2022
Tactical Secret Networking	1	2021	1	2021
Graphical Processing Unit Computing	1	2023	4	2027

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S725 / <i>Tactical Radio Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S725: Tactical Radio Systems</i>	43.178	4.149	12.999	10.058	-	10.058	10.339	5.414	5.490	5.568	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project is for the development of all Special Operations Forces (SOF) tactical radio programs. Tactical Radios provide the critical command, control, and communications (C3) link between SOF Commanders and SOF Teams conducting operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed command and control (C2) communications between operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> SOF Tactical Communications (STC)	3.487	1.791	7.827
<b>Description:</b> The STC consists of Next-Generation SOF Communication Systems which replace most of the currently fielded SOF tactical radios. Capabilities include real time, hostile and friendly force information; Line of Sight (LOS) and beyond LOS (BLOS) communications; and access to situational awareness in the form of intelligence inputs, broadcasts, and networks.			
<b>FY 2022 Plans:</b> Continue Engineering Change Proposals (ECPs) for the Next Generation Handheld (NGHH) and Next Generation Manpack (NGMP), to include initial development of the Mobile User Objective System (MUOS), to transition from legacy Ultra High Frequency tactical satellite waveforms. Continue High Frequency (HF) platform modernization of two complementary systems into an overarching, predominantly Government-owned, HF capability that provides low probability of intercept/detection (LPI/D) capabilities.			
<b>FY 2023 Plans:</b> Continues ECPs for the NGHH and NGMP, to include development of MUOS to transition from legacy UHF tactical satellite waveforms. Continues HF platform modernization of two complementary systems into an overarching, predominantly Government-owned, high frequency capability that provides LPI/D capabilities. Begins contested communications/waveform development focusing on anti-jam capabilities.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$6.036 million is due to \$5.000 million increase to support MUOS phase two development and \$1.036 million increase for anti-jam trade study.			
<b>Title:</b> Blue Force Tracking (BFT)	0.662	1.208	1.644

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

<p><b>Description:</b> BFT is a family of devices used to remotely track and monitor SOF unit personnel. The capability enhances C2, threat warning, force protection, situational awareness, combat search and rescue, counter-fratricide, and battlefield visualization. This capability is unique to SOF because it requires the devices to be lightweight, portable, secure with LPI/D.</p> <p><b>FY 2022 Plans:</b> Continue development and testing of new capabilities.</p> <p><b>FY 2023 Plans:</b> Continues development and testing of specialized BFT and initiates personnel recovery capabilities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.436 million is due to addressing BFT capability enhancements.</p>			
---	--	--	--

<p><b>Title:</b> Remote Advise and Assist Virtual Accompany Kit (RAA/VAK)</p> <p><b>Description:</b> The RAA/VAK provides operational forces a suite of tools for mission planning and execution, command and control of partnered forces, and access to real-time information for situational awareness and de-confliction. RAA/VAK utilizes available cellular networks to transmit and receive voice and data, displaying relevant information geo-spatially on Android Tactical Assault Kit. The components within the kit are commercially available, which mitigates releasability concerns and allows use by partner forces.</p> <p><b>FY 2023 Plans:</b> Evaluates alternate communications methods for data back-haul that will allow the user to connect to commercial satellite networks and the internet at a lower cost to the program.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.587 million supports the evaluation of alternate communications methods for data back-haul that will allow the user to exfil data in degraded environments.</p>	-	-	0.587
--	---	---	-------

<b>Accomplishments/Planned Programs Subtotals</b>	4.149	2.999	10.058
---	-------	-------	--------

	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Congressional Add:</b> STC - Software-Defined Radio Waveforms</p> <p><b>FY 2022 Plans:</b> Begin initial development of the Mobile User Objective System (MUOS).</p>	-	10.000
<b>Congressional Adds Subtotals</b>	-	10.000

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S725 / <i>Tactical Radio Systems</i>
--	---	--

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	338.501	364.378	306.846	-	306.846	291.434	300.604	316.399	324.803	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The STC is a COTS/Non-Development Item program with ETIs. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

The BFT is a fielded program with ETIs leveraging commercial and other government agency sources for required certifications, functional and operational tests, and technology updates.

The RAA/VAK is pursuing a MTA strategy that will leverage commercial and other government agency sources for technology insertions.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Tactical Communications (STC) Radio Development	MIPR	Various : Various	37.237	3.487	May 2021	1.791	Jan 2022	7.827	Jan 2023	-		7.827	Continuing	Continuing	-
STC Radio Waveform Congressional Add	MIPR	Various : Various	-	-		10.000	Jan 2022	-		-		-	0.000	10.000	-
Blue Force Tracking (BFT) Rapid Prototyping, Product Development, and Device Integration	MIPR	Various : Various	3.053	0.587	Nov 2020	1.133	Nov 2021	1.569	Nov 2022	-		1.569	Continuing	Continuing	-
Remote Advise and Assist Virtual Accompany Kit (RAA/VAK) Capability Development, Rapid Prototyping, Product Development, and Device Integration	MIPR	Various : Various	-	-		-		0.399	Jan 2023	-		0.399	Continuing	Continuing	-
<b>Subtotal</b>			40.290	4.074		12.924		9.795		-		9.795	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
STC Testing	Option/TBD	Various : Various	2.681	-		-		-		-		-	0.000	2.681	-
BFT SOF Assessment & Operational Testing	MIPR	Various : Various	0.207	0.075	Nov 2020	0.075	Nov 2021	0.075	Nov 2022	-		0.075	Continuing	Continuing	-
RAA/VAK SOF Assessment & Operational Testing	MIPR	Various : Various	-	-		-		0.188	Jan 2023	-		0.188	Continuing	Continuing	-
<b>Subtotal</b>			2.888	0.075		0.075		0.263		-		0.263	Continuing	Continuing	N/A





UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

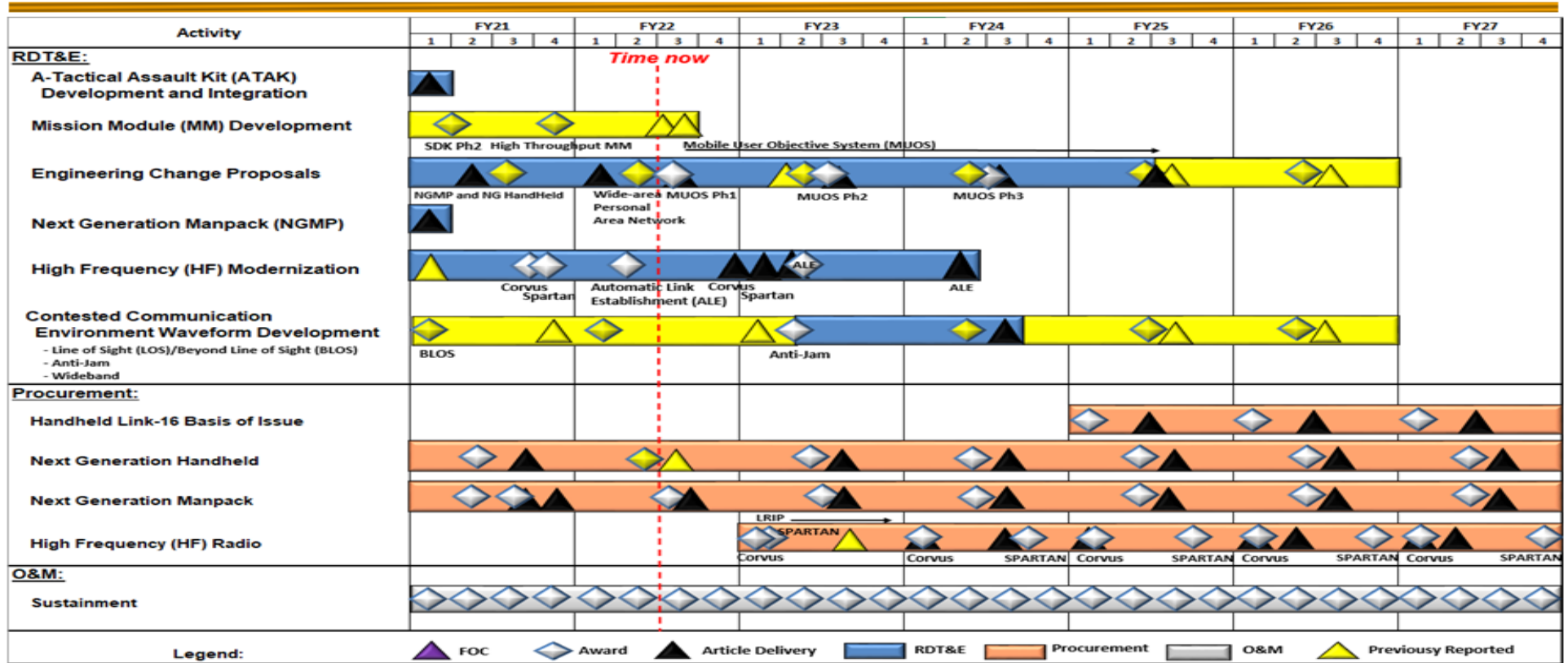
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S725 / Tactical Radio Systems

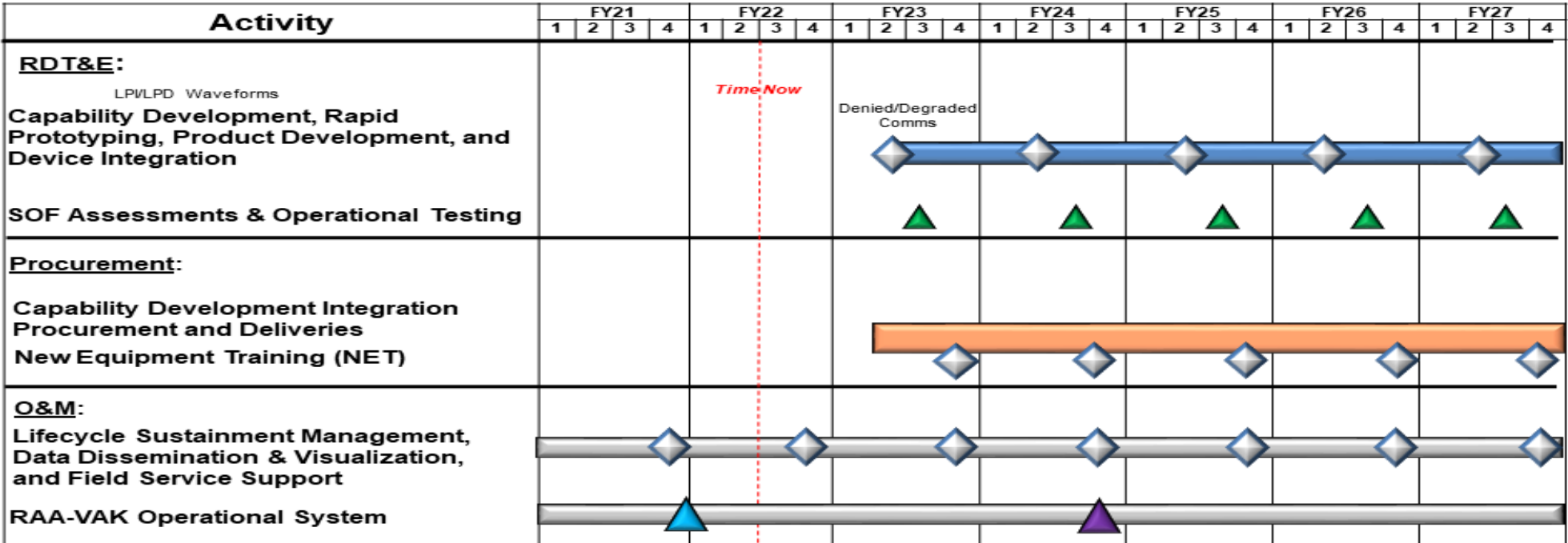
# SOF Tactical Communications (STC)/ Next Generation Tactical Communications (NGTC) Schedule





<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S725 / <i>Tactical Radio Systems</i>
--	---	--

# Remote Advise and Assist - Virtual Accompany Kit (RAA-VAK) Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
--	---	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Tactical Communications Radio (STC)</i></b>				
A-Tactical Assault Kit (ATAK) Development and Integration	1	2021	1	2021
Engineering Change Proposals (ECPs)	1	2021	2	2025
Next Generation (NGEN) Manpack (MP) Test and Evaluation	1	2021	1	2021
High Frequency (HF) Modernization	1	2021	2	2024
Contested Communication Environment Waveform Development	2	2023	3	2024
<b><i>Blue Force Tracking (BFT)</i></b>				
Rapid Prototyping, Product Development, and Device Integration	1	2021	4	2027
SOF Assessment & Operational Testing	1	2021	4	2027
<b><i>Remote Advise Assist Virtual Accompany Kit (RAA/VAK)</i></b>				
Capability Development, Rapid Prototyping, Product Development, and Device Integration	2	2023	4	2027
SOF Assessments & Operational Testing	3	2023	4	2027

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S800: <i>Munitions Advanced Development</i>	118.669	11.945	41.979	18.191	-	18.191	20.541	16.560	16.469	17.146	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project funds advanced engineering, operational system development, and qualification efforts related to specialized kinetic and non-kinetic munitions and equipment to meet the unique requirements of SOF.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Stand-Off Precision Guided Munitions (SOPGM)</p> <p><b>Description:</b> SOPGM provides for the integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms.</p> <p><b>FY 2022 Plans:</b> Continue the engineering, integration, and testing on various technologies (munitions and warheads) within the precision guided munitions portfolio.</p> <p><b>FY 2023 Plans:</b> Continues the engineering, integration, and testing of various technologies (munitions and warheads) within the precision guided munitions portfolio.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.103 million will continue SOPGM integration and development efforts.</p>	3.040	4.256	4.359
<p><b>Title:</b> Munitions Advanced Development</p> <p><b>Description:</b> The Munitions Advanced Development program provides for Insensitive Munitions (IM) technology development and evaluations that allow SOF munitions to pass testing which includes bullet impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test. Testing is in accordance with the USSOCOM IM Testing Plan. Munitions product improvements are tested in accordance with command priorities.</p> <p><b>FY 2022 Plans:</b> Continue proof of concept development and IM testing on various munitions. Continue full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for</p>	1.529	1.549	0.530

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
---	---------	---------	---------

<p>Non-Nuclear Munitions, 26 Sep 2006). Scalable Effects effort funding will enable developmental testing, initial operational test evaluations, and finalized safety certifications for operational approvals.</p> <p><b>FY 2023 Plans:</b> Continues proof of concept development and IM testing on various munitions. Continues full scale testing to satisfy safety requirements in Military Standard 2105C.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Net decrease of \$1.019 million is due to \$0.009 million increase due to a miscellaneous adjustment and (\$1.028 million) decrease due to transition of technologies to the Maritime Scalable Effects project line.</p>			
---	--	--	--

<p><b>Title:</b> Maritime Scalable Effects</p> <p><b>Description:</b> Maritime Scalable Effects and the Maritime Disablement Program will provide Naval Special Warfare (NSW) a family of systems (FOS) to include multiple payloads delivered via combat swimmer, combat submersible and Unmanned Underwater Vehicle to disrupt, degrade and destroy enemy maritime vessels, maritime support assets, and maritime infrastructure. This FOS will include several tactical and training configurations of munitions and related equipment of explosively formed penetrators, conical shape charges, linear shaped charges, diversionary devices, demolition hand grenades, breaching devices, explosives, firing devices, underwater munitions, flares, signaling devices, along with tools, equipment, and attaching devices for constructing and emplacing a variety of demolition charges and other munitions as required. Funding will accelerate upgrades to existing capabilities while at the same time field innovative technologies and creative operational concepts to target adversary vulnerabilities. Directly supports and enables subsea seabed warfare in support of integrated deterrence. MSE was previously reported under the Munitions Advanced Development.</p> <p><b>FY 2023 Plans:</b> Begins proof of concept development and IM testing on various munitions. Begins full scale, developmental testing, operational test evaluations, and finalized safety certifications for operational approvals. FY 2023 also includes FoS projects to include underwater explosive penetrator variants and other complimentary capabilities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$1.812 million supports the development of innovative technologies and creative operational concepts to target near peer vulnerabilities.</p>	-	-	1.812
---	---	---	-------

<p><b>Title:</b> Maritime Precision Engagement Munition (MPE-M) / Ground Organic Precision Strike System (GOPSS)</p> <p><b>Description:</b> Guided Rocket or propeller Systems provides for the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. MPE-M GOPSS is designated a MTA program which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts</p>	7.376	15.963	-
--	-------	--------	---

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>competitively selected as appropriate. Beginning in FY 2023, program capabilities and funding have transitioned into the Maritime Precision Engagement Munitions (MPE-M) and Ground Organic Precision Strike System (GOPSS).</p> <p><b>FY 2022 Plans:</b> Enable continued development of MPE-M by funding the following: engineering services; munition magazines; munition aircraft, launchers, and payloads; control systems; system emulators; test and evaluation events to include range time and support, testing materials, and equipment; post-event processing with revised capability and programmatic documents. These efforts will generate a Critical Design Review package and prepare the MPE-M program for fleet safety certifications, Developmental and Operational Assessments, and production. Enable development of each echelon within the GOPSS through funding the following: integration of missile launcher onto mobile platforms; purchase of developmental test articles and test equipment, test and evaluation events to include range costs; performance of critical munitions safety assessments; and post-event processing and analysis with revised capability and programmatic documents.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Net decrease of \$15.963 million is to support emerging critical Command requirements (\$4.473 million) and the remaining funds were realigned out of the MPE-M / GOPSS combined project line to the MPE-M (\$9.746 million) and GOPSS (\$1.744 million) project lines.</p>			
<p><b>Title:</b> Ground Organic Precision Strike System (GOPSS)</p> <p><b>Description:</b> Direct attack or aerial loitering munitions (ALM) provides for the engineering, integration and testing of recently developed precision guided munitions on SOF-unique platforms. GOPSS is designated as a MTA program which uses the rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate. GOPSS was previously reported under the MPE-M / GOPSS project line.</p> <p><b>FY 2023 Plans:</b> Continues the development of each echelon within GOPSS through funding the following: purchase of developmental test articles and test equipment, test and evaluation events to include range costs; performance of critical munitions safety assessments; post-event processing and analysis with revised capability and programmatic documents.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$1.744 million supports new technological innovations and development of direct attack or ALM and was broken out from the MPE-M project line.</p>	-	-	1.744
<p><b>Title:</b> Maritime Precision Engagement Munition (MPE-M)</p> <p><b>Description:</b> Guided Rocket or propeller Systems provides for the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. MPE-M is designated a MTA program which uses the</p>	-	-	9.746

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
rapid prototyping pathway and is executing using existing contracts, government agencies, and new contracts competitively selected as appropriate. MPE-M was previously reported under the MPE-M / GOPSS project line.			
<b><i>FY 2023 Plans:</i></b> Begins MPE-M development and testing by funding the following: engineering services; munition magazines; aircraft munition, launchers, and payloads; control systems, system emulators; test and evaluation events to include range time and support, testing materials, and equipment; post-event processing with revised capability and programmatic documents.			
<b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$9.746 million supports new technologies innovation to MPE-M and was broken out from the GOPSS project line.			
<b>Accomplishments/Planned Programs Subtotals</b>	11.945	21.768	18.191

	<b>FY 2021</b>	<b>FY 2022</b>
<b><i>Congressional Add:</i></b> Various Effects Launcher Capability	-	16.000
<b><i>FY 2022 Plans:</i></b> Develop, integrate and initially field a variable effects launcher capability that can carry a mixed load out of glide munitions, unmanned aerial systems and non-lethal standoff payload delivery systems.		
<b><i>Congressional Add:</i></b> Maritime Scalable Effects Acceleration	-	4.211
<b><i>FY 2022 Plans:</i></b> Develop and test two additional Part B variants intended to exploit known vulnerabilities of adversaries and accelerate the transition of Project 811.		
<b>Congressional Adds Subtotals</b>	-	20.211

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0203ORDN: <i>Ordnance Items &lt;\$5M</i>	287.629	162.212	151.233	-	151.233	158.672	164.729	163.159	207.908	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
SOPGM: Integration and developmental testing of precision guided munitions will be conducted using government laboratories or industry partners depending on the munitions for various SOF platforms.



**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160431BB / <i>Warrior Systems</i>	S800 / <i>Munitions Advanced Development</i>

Munitions Advanced Development: Munitions and packaging redesign take place within government laboratories, as well as in industry, depending on the munitions. The IM solutions shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.

GOPSS: Integration and developmental testing of precision strike systems with follow-on government-led integration effort leveraging lessons learned from similar rapid integration and prototype efforts on other SOF platforms. Planned product improvements are tested at Army, Navy, and Marine Corps test centers leveraging MTA authorities and OTAs.

MPE-M: Maritime Precision Effects - Munitions take place within government laboratories and industry while leveraging existing developmental efforts and progress achieved in parallel, land-based aircraft and munitions efforts. Solutions reflect an integration of multiple platforms and shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.

Maritime Scalable Effects: Maritime Scalable Effects munitions and packaging redesign take place within government laboratories, as well as in industry, depending on the munitions. Solutions shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers leveraging MTA authorities and OTAs.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Stand-off Precision Guided Munitions (SOPGM) Development	SS/ Various	Various : Various	-	3.040	Feb 2021	3.756	Mar 2022	3.859	Mar 2023	-		3.859	Continuing	Continuing	-
Various Effects Launcher Capability Cong Add	C/Various	Various : Various	-	-		16.000	Sep 2022	-		-		-	0.000	16.000	-
Maritime Scalable Effects (MSE) Variant Feasibility Study - Congressional Add	C/Various	Various : Various	-	-		0.100	Jun 2022	-		-		-	0.000	0.100	-
MSE Parts B2/B3 Variant Development - Congressional Add	C/Various	Various : Various	-	-		2.000	Aug 2022	-		-		-	0.000	2.000	-
MSE Project 811 Product Development - Congressional Add	C/Various	Various : Various	-	-		1.517	Jun 2022	-		-		-	0.000	1.517	-
MSE Parts A and B Product Development - Congressional Add	C/Various	Various : Various	-	-		0.594	Jun 2022	-		-		-	0.000	0.594	-
Ground Organic Precision Strike System (GOPSS)	C/Various	Various : Various	2.067	3.455	Mar 2021	1.775	Nov 2021	1.744	Dec 2022	-		1.744	Continuing	Continuing	-
Maritime Precision Engagement Munition (MPE-M) Aircraft Development	C/Various	Various : Various	4.723	1.516	Nov 2020	9.850	Nov 2021	8.000	Jan 2023	-		8.000	Continuing	Continuing	-
MPE-M - Payload development	C/Various	Various : Various	1.010	0.922	Nov 2020	1.200	Nov 2021	-		-		-	Continuing	Continuing	-
MPE-M Integration Development	C/Various	Various : Various	1.850	0.699	Nov 2020	0.956	Nov 2021	0.209	Jan 2023	-		0.209	Continuing	Continuing	-
Prior Year Funding - Base	C/Various	Various : Various	59.570	-		-		-		-		-	0.000	59.570	-
Prior Year Funding - Overseas Contingency Operations (OCO)	C/Various	Various : Various	0.002	-		-		-		-		-	0.000	0.002	-
Prior Year Funding - Congressional Plus Up	C/Various	Various : Various	23.957	-		-		-		-		-	0.000	23.957	-
<b>Subtotal</b>			93.179	9.632		37.748		13.812		-		13.812	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year	C/Variou	Various : Various	1.100	-		-		-		-		-	0.000	1.100	-
Prior Year Funding - OCO	C/Variou	Various : Various	0.001	-		-		-		-		-	0.000	0.001	-
Prior Year Funding - Congressional Plus Up	C/Variou	Various : Various	7.868	-		-		-		-		-	0.000	7.868	-
<b>Subtotal</b>			8.969	-		-		-		-		-	0.000	8.969	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOPGM Development	C/Variou	Various : Various	-	-		0.500	Feb 2022	0.500	Feb 2023	-		0.500	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - Insensitive Munitions (IM) Evaluation	C/FFP	US Air Force Air Armaments Center : Eglin, AFB, FL	0.222	0.060	Dec 2020	0.067	Dec 2021	0.072	Dec 2022	-		0.072	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - IM Testing	Allot	ARDEC : Picatinny Arsenal, NJ	1.203	1.267	Dec 2020	0.268	Dec 2021	0.270	Dec 2022	-		0.270	Continuing	Continuing	-
Munitions Advanced Development AMMO Systems - Obtain Munitions Test Articles	C/FFP	General Dynamics : Canada	0.482	0.202	Dec 2020	1.214	Dec 2021	0.188	Dec 2022	-		0.188	Continuing	Continuing	-
MSE Test and Evaluation of Part A	C/Variou	Various : Various	-	-		-		0.400	Jan 2023	-		0.400	Continuing	Continuing	-
MSE Test and Evaluation of Part B	Variou	Various : Various	-	-		-		0.400	Jan 2023	-		0.400	Continuing	Continuing	-
MSE Test and Evaluation Project 811 and Parts B2/ B3	Variou	Various : Various	-	-		-		1.012	Jun 2023	-		1.012	Continuing	Continuing	-
MPE-M - Safety	Allot	NSWC : Indian Head, MD	0.389	0.365	Jun 2021	0.419	Nov 2021	0.900	Jan 2023	-		0.900	Continuing	Continuing	-
MPE-M - Payload Test	Allot	Redstone : Various	0.450	0.141	May 2021	0.468	Feb 2022	0.300	Mar 2023	-		0.300	Continuing	Continuing	-

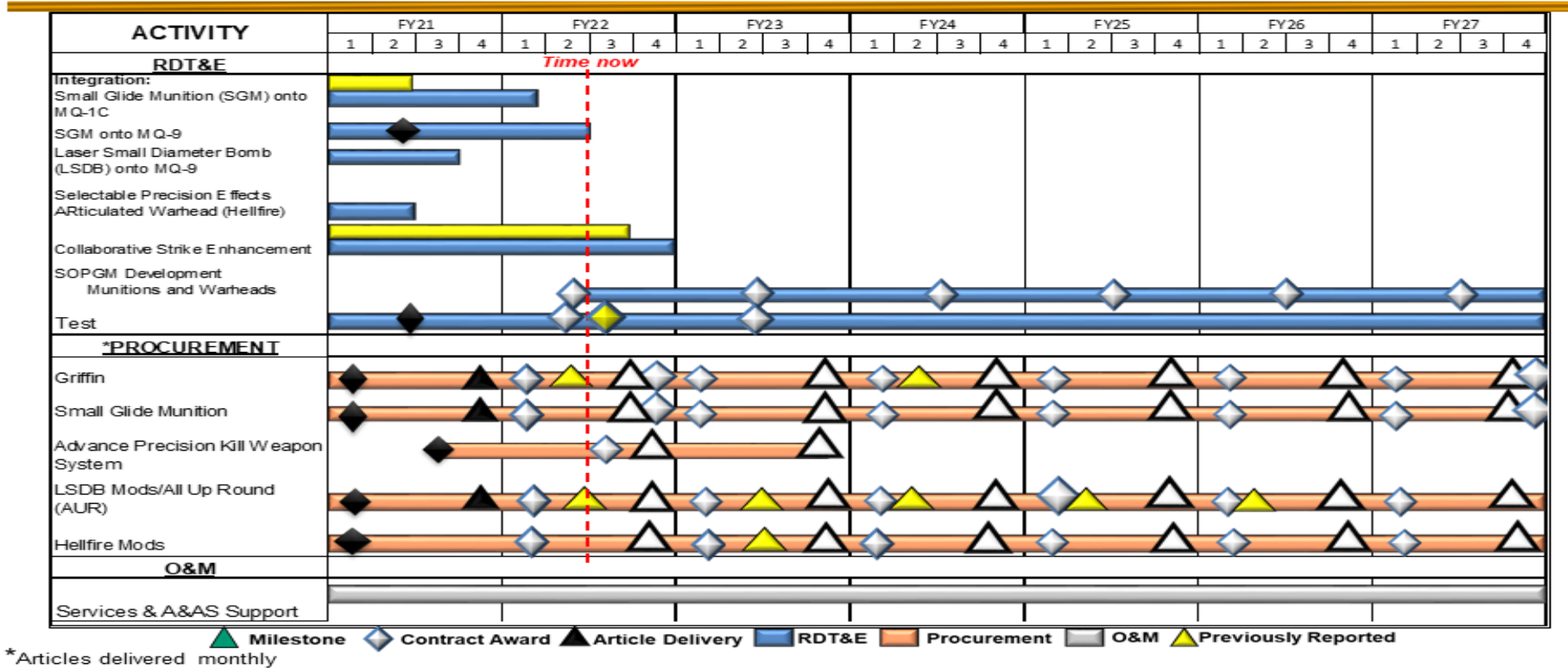


Appropriation/Budget Activity  
0400 / 7

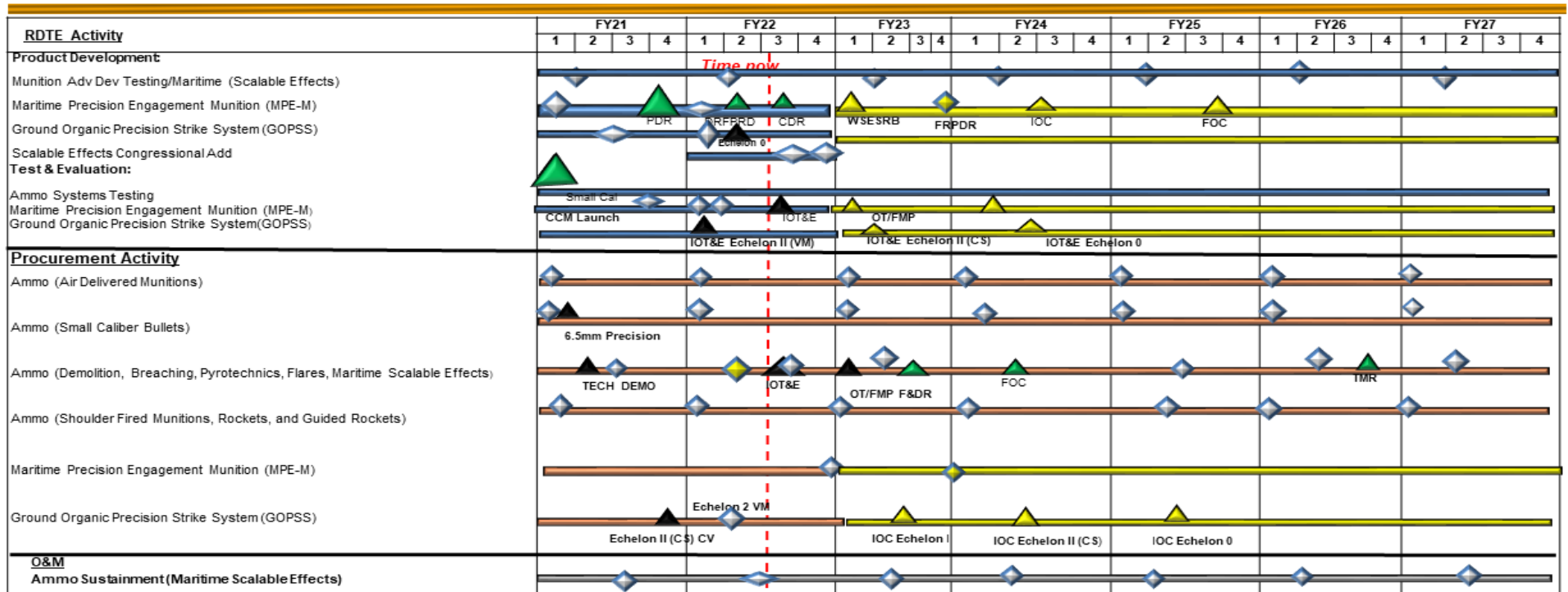
R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S800 / Munitions Advanced Development

# Stand-Off Precision Guided Munitions Schedule



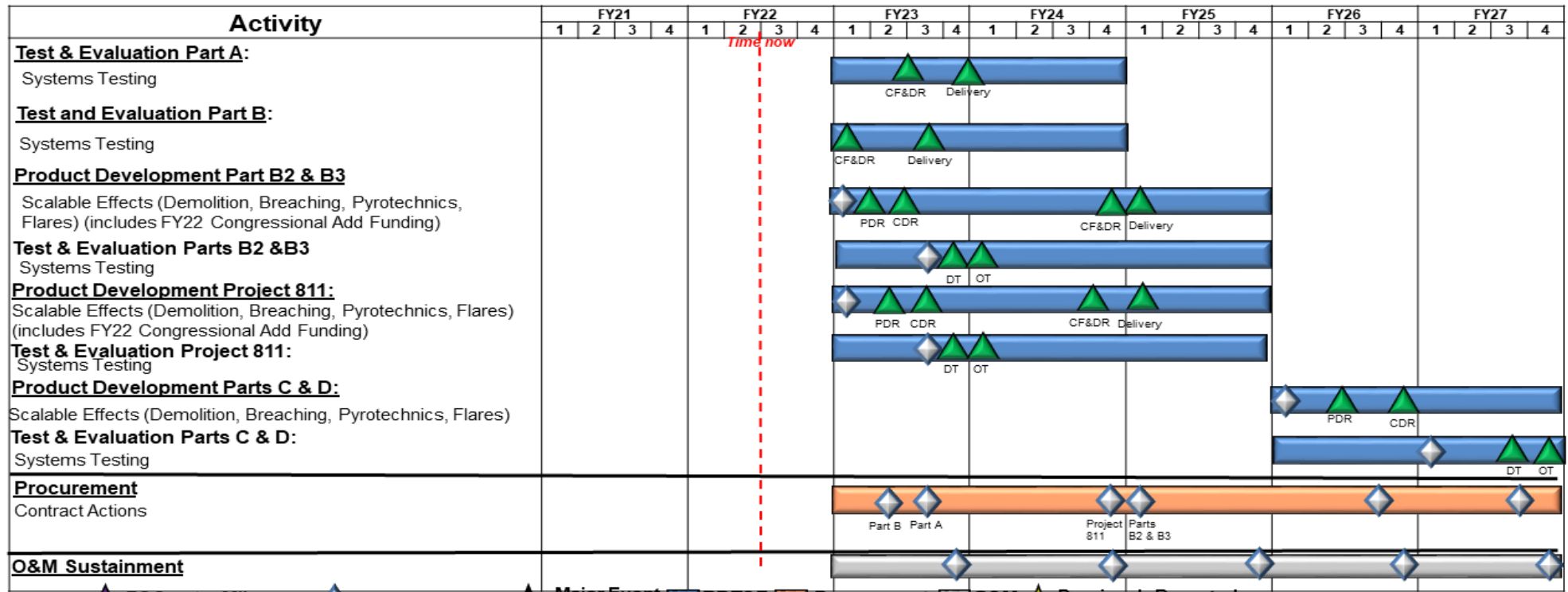
# Munitions Advanced Development Schedule



Note: Maritime Scalable Effects (MSE), Maritime Precision Engagement Munitions (MPE-M), and Ground Organic Precision Strike Systems (GOPSS) transitioned to stand-alone schedules beginning in FY23

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>

# Maritime Scalable Effects Schedule



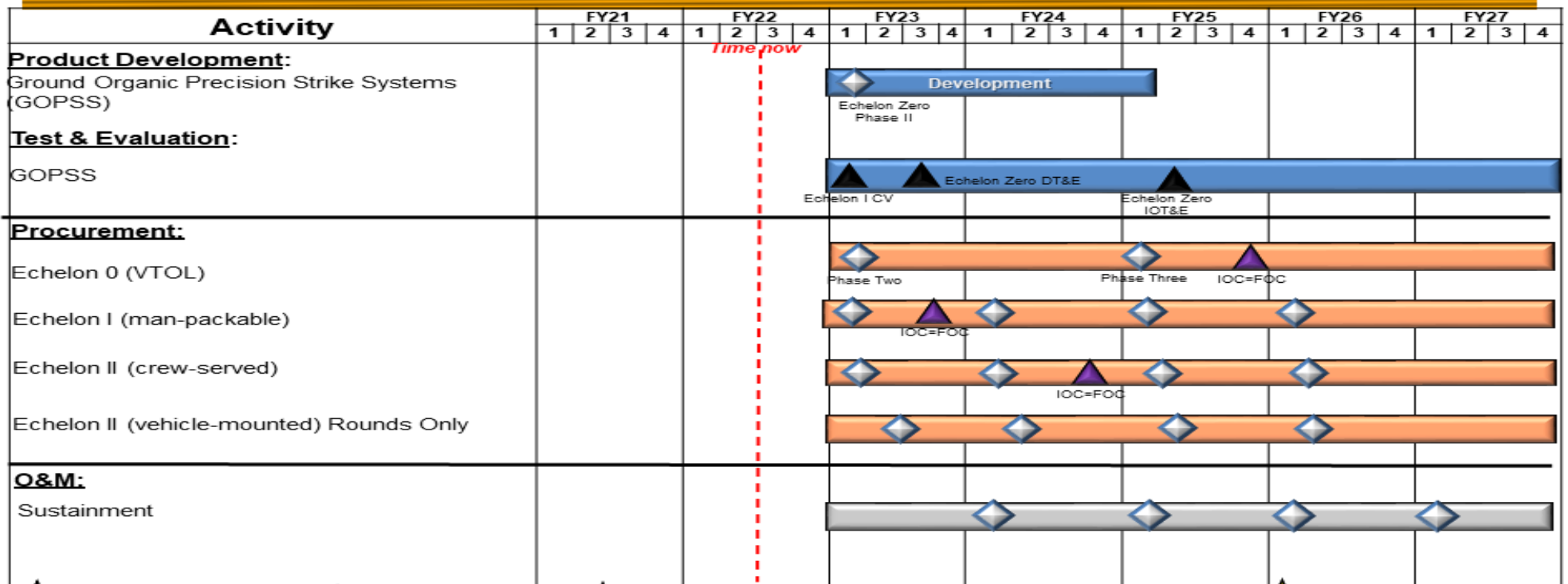
Note: Maritime Scalable Effects (MSE), Maritime Precision Engagement Munitions (MPE-M), and Ground Organic Precision Strike Systems (GOPSS) transitioned from the Munitions schedule to stand-alone schedules beginning in FY23

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S800 / Munitions Advanced Development

# Ground Organic Precision Strike System (GOPSS) Schedule

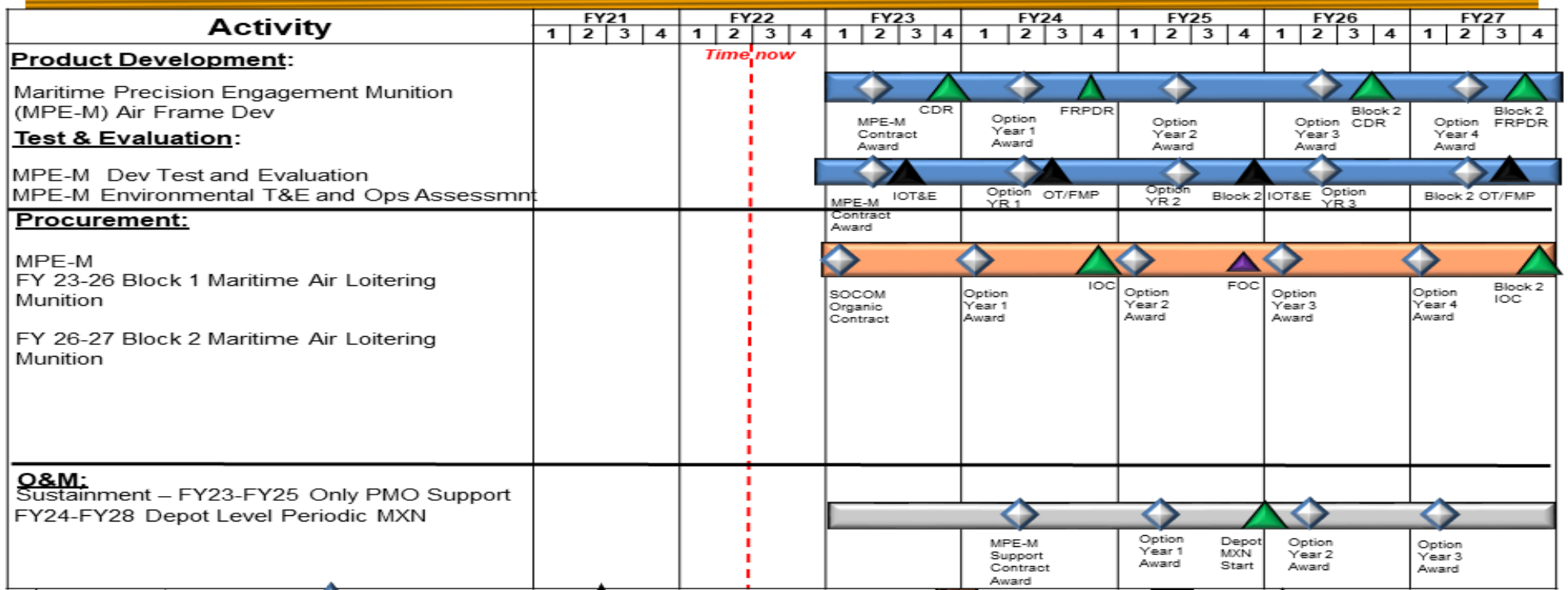


▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Major Event   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

Note: Maritime Scalable Effects (MSE), Maritime Precision Engagement Munitions (MPE-M), and Ground Organic Precision Strike Systems (GOPSS) transitioned from the Munitions schedule to stand-alone schedules beginning in FY23



# Maritime Precision Engagement – Munition (MPE-M) Schedule



▲ FOC   
 ▲ Milestone   
 ◆ Contract Award   
 ▲ Major Event   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

Note: Maritime Scalable Effects (MSE), Maritime Precision Engagement Munitions (MPE-M), and Ground Organic Precision Strike Systems (GOPSS) transitioned from the Munitions schedule to stand-alone schedules beginning in FY23

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Stand-off Precision Guided Munitions (SOPGM)</i></b>				
Small Glide Munitions (SGM) onto MQ-1C Integration	1	2021	1	2022
SGM onto MQ-9 Integration	1	2021	3	2022
Laser Small Diameter Bomb (LSDB) onto MQ-9 Integration	1	2021	4	2021
Selectable Precision Effects Articulated Warhead (Hellfire)	1	2021	3	2021
SGM Collaborative Strike Enhancement	1	2021	4	2022
SOPGM Development Munitions and Warheads	2	2022	4	2027
SOPGM Testing	1	2021	4	2027
<b><i>Munitions Advanced Development</i></b>				
Munition Adv Dev Testing/Maritime Scalable Effects (MSE) Product Development	1	2021	4	2027
Maritime Precision Engagement Munition (MPE-M) Product Development	1	2021	4	2022
Ground Organic Precision Strike System (GOPSS) Product Development	1	2021	4	2022
Scalable Effects Congressional Add Product Development	1	2022	4	2022
Ammo Systems Test and Evaluation (T&E)	1	2021	4	2027
MPE Systems T&E	1	2021	4	2022
GOPSS Systems T&E	1	2021	4	2022
<b><i>Maritime Scalable Effects (MSE)</i></b>				
MSE Contract Actions Parts A and B	1	2023	4	2024
MSE Product Development Parts B2/B3	1	2023	4	2025
MSE Product Development Project 811	1	2023	4	2025
MSE T&E Parts B2/B3	1	2023	4	2025
MSE T&E Project 811	1	2023	4	2025
MSE Part C T&E	1	2026	4	2027

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
--	---	--

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MSE Part D T&E	1	2026	4	2027
<b><i>GOPSS</i></b>				
GOPSS Product Development	1	2023	1	2025
GOPSS T&E	1	2023	4	2027
<b><i>MPE-M</i></b>				
MPE-M Product Development	1	2023	4	2027
MPE-M T&E	1	2023	4	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160432BB / <i>Special Programs</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	52.779	7.220	10.486	0.518	-	0.518	0.529	0.539	0.550	0.561	Continuing	Continuing
S500E: <i>Special Programs</i>	52.779	7.220	10.486	0.518	-	0.518	0.529	0.539	0.550	0.561	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	7.494	6.486	0.000	-	0.000
Current President's Budget	7.220	10.486	0.518	-	0.518
Total Adjustments	-0.274	4.000	0.518	-	0.518
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.274	-			
• Adjustments to Budget Year	-	-	0.518	-	0.518

**Change Summary Explanation**

Funding:

FY 2021: Decrease of -\$0.274 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Increase of \$4.000 million is due to a Congressional Add for overmatch visual augmentation. Details are provided under separate cover.

FY 2023: Funding increase of \$0.518 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing
S855: <i>Unmanned ISR</i>	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This Program Element (PE) is part of the Military Intelligence Program (MIP). Unmanned Intelligence, Surveillance, and Reconnaissance (ISR) rapidly develops and deploys special capabilities to perform ISR for deployed Special Operations Forces (SOF) using non-traditional means. The United States Special Operations Command (USSOCOM) has been designated as the Department of Defense lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. The USSOCOM requires the capability to find, fix, and finish time-sensitive high-value fixed and fleeting targets at the unit and team level without placing personnel and units in harm's way. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This PE addresses the primary areas of ISR and Targeting capabilities for SOF. These technologies will be pursued via rapid prototyping efforts when appropriate.

Fiscal Year (FY) 2021 funding totals include \$3.000 million appropriated for Overseas Contingency Operations (OCO).  
 FY 2022 funding totals include \$18.006 million Base with \$0.000 million Direct War and \$5.000 million for Enduring Costs.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	17.154	18.006	0.000	-	0.000
Current President's Budget	17.154	18.006	3.354	-	3.354
Total Adjustments	0.000	0.000	3.354	-	3.354
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	3.354	-	3.354

**Change Summary Explanation**

Funding:

FY 2021: None

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 7: <i>Operational Systems Development</i>	PE 1160434BB / <i>Unmanned ISR</i>

FY 2022: None

FY 2023: FY 2023 funding increase of \$3.354 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$1.335 million to account for the availability of prior year execution balances.

Schedule: None.

Technical: None.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>				<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S855: <i>Unmanned ISR</i>	141.516	17.154	18.006	3.354	-	3.354	6.727	6.578	6.161	6.284	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project is part of the Military Intelligence Program (MIP). It rapidly develops and deploys special capabilities to perform Intelligence, Surveillance, and Reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means.

Group 1, 2, 3 and 4, Unmanned Aerial Systems (UAS) developmental efforts are to identify, develop, integrate, and test SOF-unique mission kits, mission payloads, air vehicle enhancements, and modifications to ground control stations. Based on stakeholder input and requirements, Special Applications for Contingencies (SAFC) develops and integrates UAS payloads to advance ISR capabilities that address dynamic and emergent operational needs of the SOF user. Efforts include improving imagery intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. This program also provides a mechanism for SOF user combat evaluation of emerging sensor technologies.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> SAFC	7.349	4.862	-
<p><b>Description:</b> SAFC's evolutionary development projects quickly provide integrated, SOF-unique mission kits, mission payloads, air vehicle enhancements and ground control station upgrades to its user community. These efforts rapidly develop and integrate UAS air vehicles, payloads and other technologies to field ISR capabilities and address dynamic and emergent operational needs and vulnerabilities of the SOF user. Efforts include improving imagery intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. It also provides a mechanism for SOF user combat evaluation of emerging sensor technologies. The SAFC applies focused Research &amp; Development (R&amp;D) for relatively low cost solutions to provide short lead-time contingency planning requirements where focused R&amp;D will allow for test and evaluation of leading edge solutions to emergent problem sets.</p> <p><b>FY 2022 Plans:</b> Continue development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short-notice requirements. Continue evaluation of unique sensor technologies, persistent stare and quick reaction systems.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$4.862 million is due to SAFC funding consolidation into EOTACS under PE 1160405BB; Project S400, Special Operations (SO) Intelligence Systems for FY 2023 and beyond.</p>			
<b>Title:</b> Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)	0.283	0.289	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Description:</b> EOTACS systems are less than 55 pounds in weight and include fixed wing, Vertical Takeoff and Landing, and tethered platforms. Provides for rapid development and prototyping efforts to identify, develop, integrate, and test SOF-unique mission kits. Leverage SAFC development efforts.</p> <p><b>FY 2022 Plans:</b> Continue integration and testing of SOF unique mission kits, mission payloads, and modifications to the small tactical UAS and ground control station, to include but not limited to; improved capabilities for geo-location, collection of push-to-talk, communications, specialized tagging, tracking, and locating, and enhanced communications relay and work to miniaturize previously developed payloads.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.289 million is due to a transfer of EOTAC funding to PE 1160405BB; Project S400, SO Intelligence Systems for FY 2023 and beyond.</p>			
<p><b>Title:</b> Multi-Mission Tactical Unmanned Aerial System (MTUAS)</p> <p><b>Description:</b> MTUAS are medium tactical systems, between 21 pounds and 55 pounds in weight. Identifies, develops, integrates, and tests SOF-unique mission kits, payloads, aircraft and ground control station modifications.</p> <p><b>FY 2022 Plans:</b> Continue integration and testing of SOF-unique mission capabilities to meet new medium tactical UAS requirements, to include but not limited to; signals intelligence gathering, full motion video, geo-location, communications relay, Global Positioning System (GPS) anti-jam technology, and decreased footprint. Continue development and improvement of new platform material solution in order to meet updated requirements.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$5.748 million is due to a transfer of MTUAS funding to PE 1160405BB; Project S400, SO Intelligence Systems for FY 2023 and beyond.</p>	3.505	5.748	-
<p><b>Title:</b> Group 3 UAS</p> <p><b>Description:</b> Group 3 UAS are systems, between 55 pounds and 1320 pounds in weight. Identifies, develops, integrates, and tests SOF-unique mission kits, payloads and ground control station modifications.</p> <p><b>FY 2022 Plans:</b></p>	3.000	6.015	-

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continue development and integration of SOF unique payloads and mission kits for use on the service provided RQ-21A Blackjack UAS. Focus areas in development include integration of signals intelligence payloads, reduction in ground station kit size, and operating independent of GPS.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$6.015 million supports a deliberate approach to reinvest in modernization and advance the transition of Special Operations capabilities to support building enduring advantages while implementing the Joint Warfighting Concept.			
<b>Title:</b> Group 4 UAS  <b>Description:</b> Group 4 UAS are large systems that weigh greater than 1,320 pounds and fly higher than flight level 180. Provides for development efforts to identify, develop, integrate, and test SOF-unique mission kits.  <b>FY 2022 Plans:</b> Develop, test, and integrate SOF peculiar emerging technology mission kits, mission payloads, weapons, and modification on MQ-1C Unmanned Aerial Vehicles (UAVs), Ground Control Stations (GCS), and training systems.  <b>FY 2023 Plans:</b> Develops, tests, and integrates SOF peculiar emerging technology mission kits, mission payloads, weapons, and modification on MQ-1C and Long Endurance Aircraft (LEA) UAVs, Ground Control Stations (GCS), and training systems. Begins initial development and integration of LEA mission kits and improved platform capabilities to include longer endurance.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$2.262 million is due to the planned development and integration of MQ-1C Airborne and Tactical Mission Networking systems resulting from Architecture, Automation, Autonomy and Interface (A3I) events as well as the initial development and integration of LEA mission kits and improved platform capabilities to include longer endurance.	3.017	1.092	3.354
<b>Accomplishments/Planned Programs Subtotals</b>	17.154	18.006	3.354

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0201UMNISR: <i>Unmanned ISR</i>	32.695	64.951	41.749	-	41.749	26.997	28.217	52.957	33.676	Continuing	Continuing
<b>Remarks</b>											

UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>

**D. Acquisition Strategy**

SAFC acquisition strategy is evolutionary and spiral-based for technology insertion and low volume procurement. SAFC utilizes existing competed contract vehicles to the maximum extent possible for minor development, integration and modification of Government-Off-The-Shelf (GOTS)/Commercial-Off-The-Shelf (COTS) equipment. Utilizes limited/full and open competition contracts and rapid acquisition tools for major developments.

EOTACS is an evolutionary acquisition program that delivers, integrates, and qualifies SOF-unique mission kits, mission payloads, air vehicle enhancements, and ground control station upgrades. These capabilities are defined through a thorough stakeholder's analysis in order to provide well and broadly defined capabilities. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible. Proprietary considerations may direct some effort to the Original Equipment Manufacturer (OEM).

MTUAS uses evolutionary acquisition solutions that deliver, integrate, and qualify SOF-unique modular mission kits that may include; mission payloads, air vehicle enhancements, training systems, and ground control station upgrades. These capabilities are defined through available acquisition strategy that includes a thorough stakeholder's analysis to provide well and broadly defined capabilities. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible but may also leverage Other Transactional Authorities (OTAs) when sensible. Proprietary considerations may direct some effort to the OEM on a sole source basis.

Group 3 UAS are evolutionary acquisition projects that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, air vehicle enhancements, and ground control station upgrades. These capabilities are defined through a thorough stakeholder's analysis in order to provide well and broadly defined capabilities. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible. Proprietary considerations may direct some efforts to the OEM.

Group 4 UAS is an evolutionary acquisition program that develops, tests, and integrates SOF peculiar emerging technology mission kits, mission payloads, weapons, and modifications on MQ-1C UAVs, LEA, GCS, and training systems. Group 4 UAS provides rapid prototype activities and technology maturation events to increase situational awareness, lethality, and platform capability. Contract types include a mix of cost type and fixed price. Proprietary issues with the aircraft and GCS software as well as aircraft modification may require sole source contracting to the original equipment manufacturer. Where possible, Group 4 UAS leverages service common Contractor Logistics Support (CLS) and developmental activities and contracts for aircraft and ancillary equipment development, improvement, and sustainment.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Special Applications for Contingencies (SAFC) Platform/Payload Development and Integration	MIPR	Various; Various : Various	8.421	4.570	Dec 2020	3.157	Dec 2021	-		-		-	0.000	16.148	-
Expeditionary Organic Tactical Airborne Intelligence, Surveillance, and Reconnaissance Capability Set (EOTACS) Payload Integration	MIPR	Various : Various	1.087	0.283	Mar 2021	0.289	Dec 2022	-		-		-	0.000	1.659	-
Multi-Mission Tactical Unmanned Aerial Service (MTUAS)/Payloads Development and Integration	MIPR	Various : Various	18.076	2.136	Jun 2021	3.505	Feb 2022	-		-		-	0.000	23.717	-
Group 3 UAS Platform/ Payload Development and Integration	MIPR	Various : Various	-	-		2.076	Nov 2021	-		-		-	0.000	2.076	-
Group 3 UAS Platform/ Payload Development and Integration (OCO)	MIPR	Various : Various	6.859	1.194	Mar 2021	-		-		-		-	0.000	8.053	-
Group 4 UAS Platform/ Payloads Development and Integration	Various	Various : Various	18.713	2.434	Mar 2021	0.885	Mar 2022	2.869	Mar 2023	-		2.869	Continuing	Continuing	-
Prior Year Effort	Various	Various : Various	32.428	-		-		-		-		-	0.000	32.428	-
Prior Year Effort - Congressional Add	Various	Various : Various	11.000	-		-		-		-		-	0.000	11.000	-
<b>Subtotal</b>			96.584	10.617		9.912		2.869		-		2.869	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / Unmanned ISR	<b>Project (Number/Name)</b> S855 / Unmanned ISR
--	---	---

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SAFC Platform/Payload Integration	MIPR	Various : Various	2.132	0.500	Jan 2021	0.213	Dec 2021	-		-		-	0.000	2.845	-
MTUAS Platform/Payload Support	MIPR	Various : Various	1.418	0.976	Jan 2021	1.618	Jan 2022	-		-		-	0.000	4.012	-
Group 3 UAS Platform/Payload Mission Kits (OCO)	MIPR	Various : Various	2.003	1.276	Mar 2021	-		-		-		-	0.000	3.279	-
Group 3 UAS Platform/Payload Mission Kits	MIPR	Various : Various	-	-		2.000	Apr 2022	-		-		-	0.000	2.000	-
<b>Subtotal</b>			5.553	2.752		3.831		-		-		-	0.000	12.136	N/A

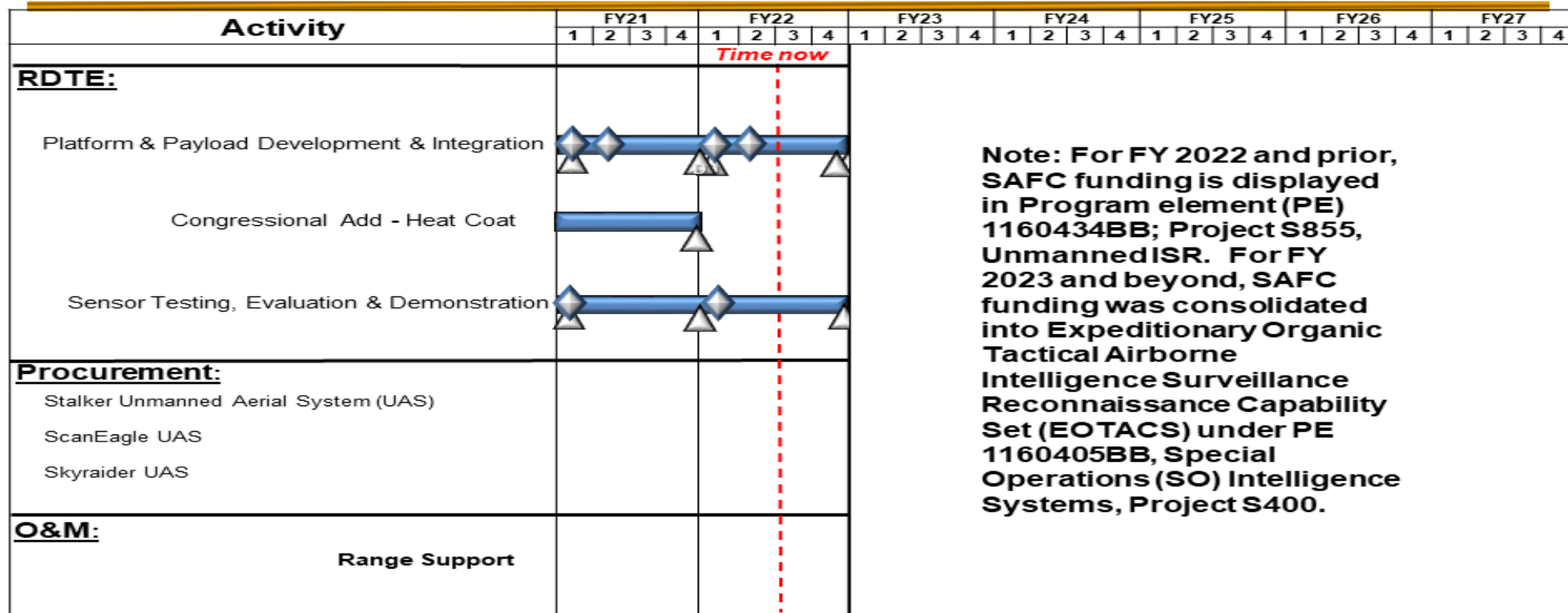
<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SAFC Sensor Testing, Evaluation and Demonstration	MIPR	Various; Various : Various	12.998	1.279	Dec 2020	0.965	Dec 2021	-		-		-	0.000	15.242	-
MTUAS Platform/Payload Test and Evaluation	MIPR	Various : Various	1.577	0.393	Dec 2021	0.625	Mar 2022	-		-		-	0.000	2.595	-
Group 3 UAS Test and Evaluation	MIPR	Various Vendors During Integrations : Various : Various	-	-		1.939	Jan 2022	-		-		-	0.000	1.939	-
Group 3 UAS Test and Evaluation (OCO)	MIPR	Various Vendors During Integrations : Various	1.138	0.530		-		-		-		-	0.000	1.668	-
Group 4 UAS Test and Evaluation	Various	Various : Various Vendors During Integration	0.675	0.583	Mar 2021	0.207	Mar 2022	0.485	Mar 2023	-		0.485	Continuing	Continuing	-
Prior Year	Various	Various : Various	10.593	-		-		-		-		-	0.000	10.593	-
<b>Subtotal</b>			26.981	2.785		3.736		0.485		-		0.485	Continuing	Continuing	N/A



**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>

# Special Applications for Contingencies (SAFC) Schedule



**Note: For FY 2022 and prior, SAFC funding is displayed in Program element (PE) 1160434BB; Project S855, Unmanned ISR. For FY 2023 and beyond, SAFC funding was consolidated into Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) under PE 1160405BB, Special Operations (SO) Intelligence Systems, Project S400.**

▲ Milestone  
 ◆ Article Award  
 ▲ Article Delivery  
 ■ RDT&E  
 ■ Procurement  
 ■ O&M  
 ▲ Previously Reported



**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

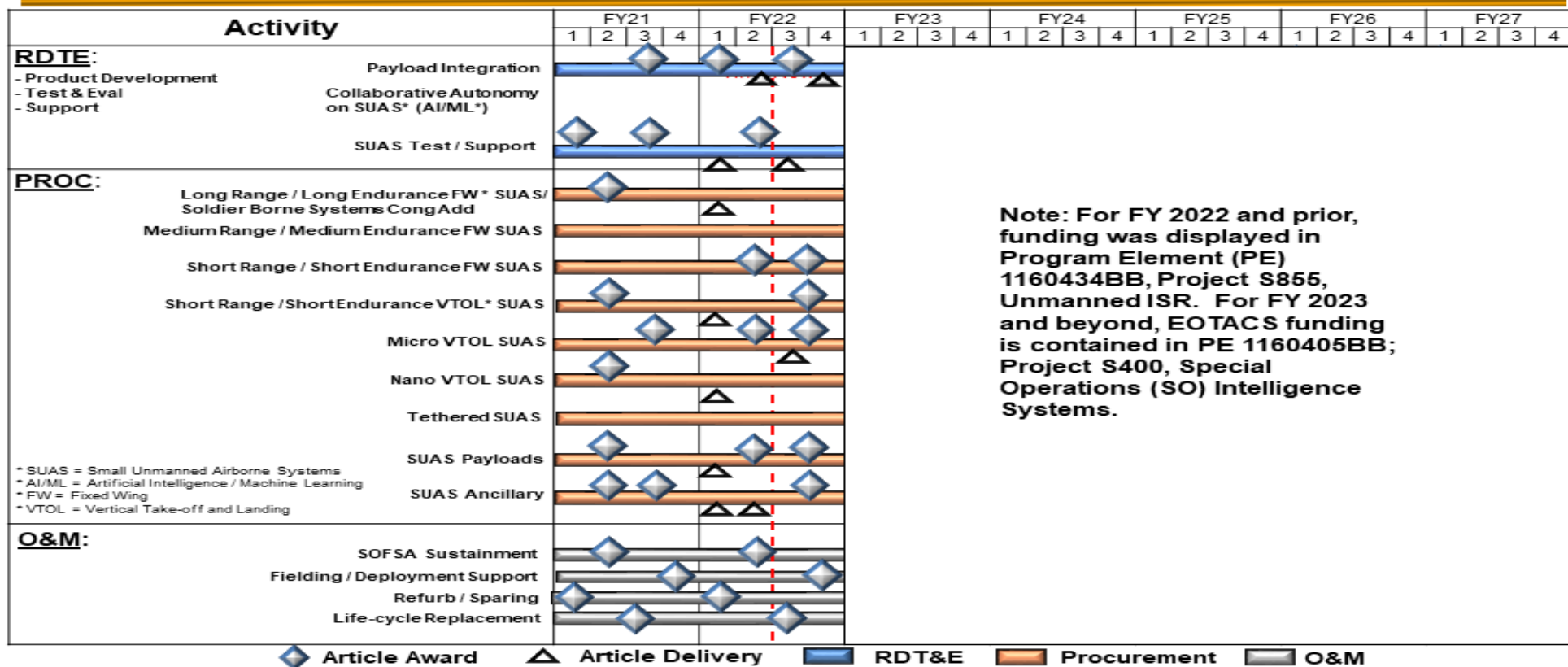
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160434BB / Unmanned ISR

Project (Number/Name)  
S855 / Unmanned ISR

## Expeditionary Organic Tactical Airborne Intelligence Surveillance Reconnaissance Capability Set (EOTACS) Schedule



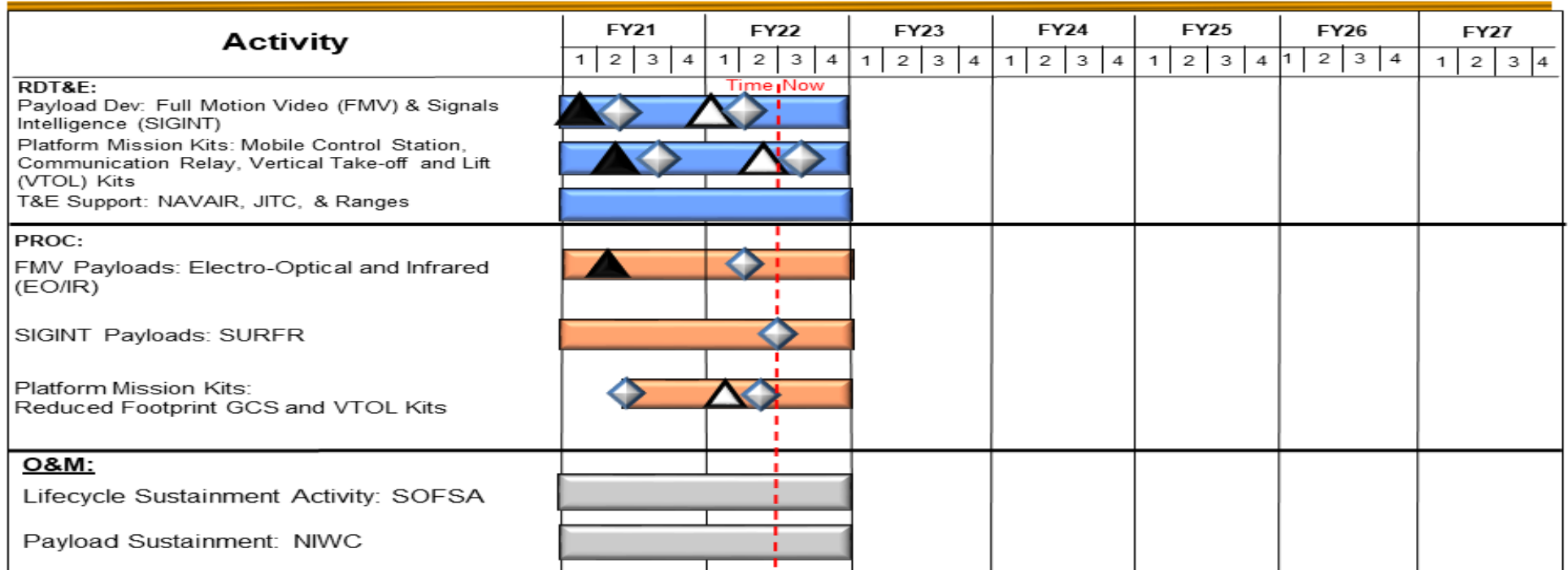


**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>
--	--	--

## Group 3 Unmanned Aerial Systems (UAS) Schedule



▲ Milestone   
 ◆ Contract Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

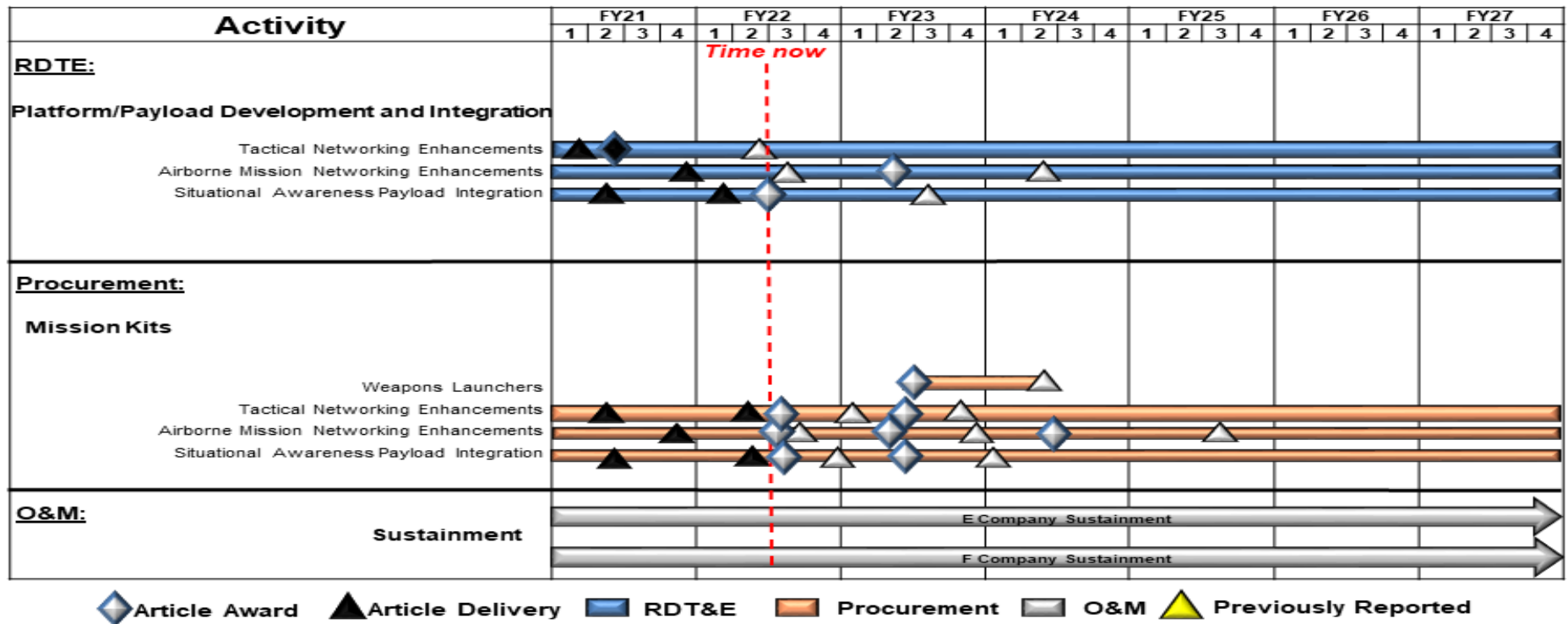
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160434BB / Unmanned ISR

Project (Number/Name)  
S855 / Unmanned ISR

## Group 4 UAS: MQ-1C Schedule

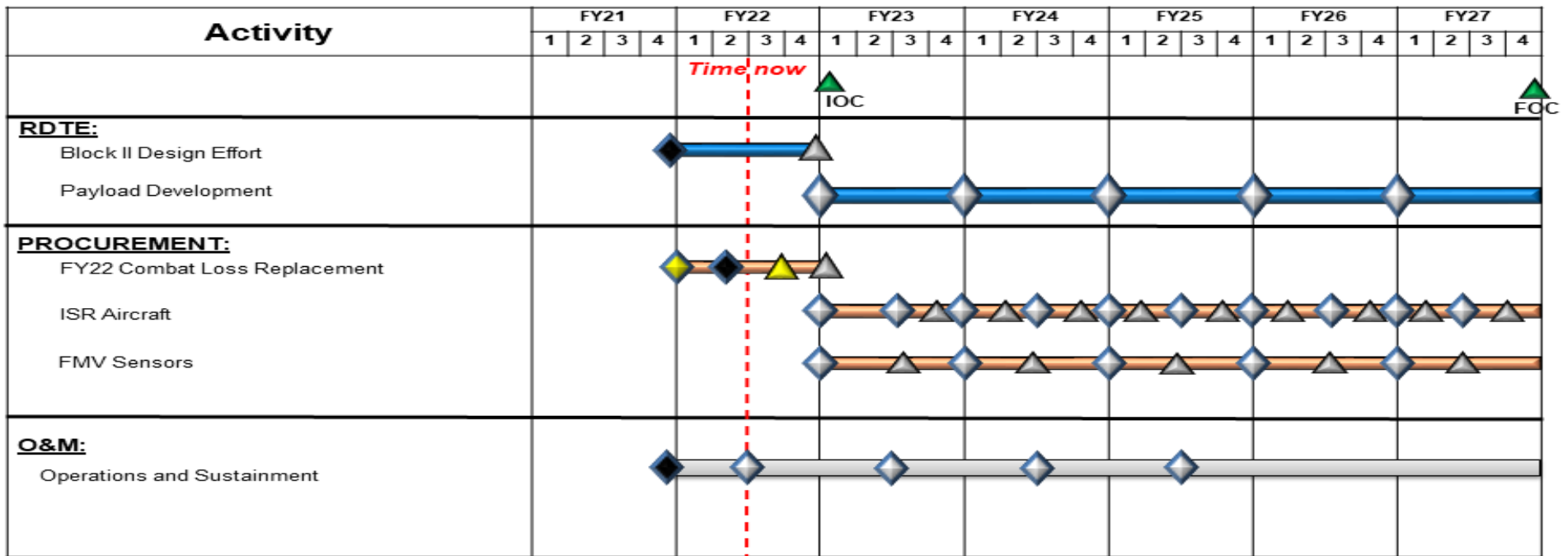


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160434BB / Unmanned ISR

Project (Number/Name)  
S855 / Unmanned ISR

# Group 4 UAS: LEA Schedule



▲ Milestone   
 ◆ Article Award   
 ▲ Article Delivery   
 ■ RDT&E   
 ■ Procurement   
 ■ O&M   
 ▲ Previously Reported

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160434BB / <i>Unmanned ISR</i>	<b>Project (Number/Name)</b> S855 / <i>Unmanned ISR</i>
--	--	--

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Special Application for Contingencies (SAFC)</i></b>				
Platform and Payload Product Development, Support, and Management	1	2021	4	2022
Anti-Icing Development on TigerShark (Congressional Add)	1	2021	4	2021
Sensor Testing, Evaluation, and Demonstration	1	2021	4	2022
<b><i>Group 1 Unmanned Aerial System (UAS)/Expeditionary Organic Tactical Airborne ISR Capability Set (EOTACS)</i></b>				
Payload Integration; Test Range Support	1	2021	4	2022
<b><i>Group 2 Multi-Mission Tactical Unmanned Aerial System (MTUAS)</i></b>				
Platform/Payload Development and Integration	1	2021	4	2022
Platform/Payload Test & Evaluation	1	2021	4	2022
<b><i>Group 3 UAS</i></b>				
Payload Development	1	2021	4	2022
Platform/Mission Kits Development and Integration	1	2021	4	2022
Platform/Payload Test & Evaluation	1	2021	4	2022
<b><i>Group 4 UAS</i></b>				
Tactical Networking Enhancements	1	2021	4	2027
Airborne Mission Networking Enhancements	1	2021	4	2027
Situational Awareness Sensor Integration	1	2021	4	2027
Long Endurance Aircraft Block II Design Effort	4	2021	4	2022
Long Endurance Aircraft Payload Development	1	2023	4	2027

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing
S910: <i>SOF Tactical Vehicles</i>	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the development and testing of a variety of capability upgrades to Special Operations Forces (SOF) Vehicles and ancillary equipment. Current SOF tactical vehicles are categorized into Light, Medium, Heavy, and Commercial, and include the following: Ground Mobility Vehicle (GMV 1.1); Non-Standard Commercial Vehicle (NSCV); Light Tactical All-Terrain Vehicle (LTATV); Mine Resistant Ambush Protected (MRAP) Vehicle; Joint Light Tactical Vehicle (JLTV); and SOF Communication kits for multiple platforms. The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments, and be able to meet any threat to provide a maximum degree of survivability. These technologies will be pursued via rapid prototyping efforts when appropriate.

The total cost of the MRAP - Stryker Command, Control, Computers, Communications, Cyber-defense Intelligence, Surveillance, and Reconnaissance (C5ISR) Middle Tier of Acquisition effort is \$11.336 million, including RDT&E and procurement of prototype units. This effort was funded \$6.336 million in FY 2022 and will conclude prior to FY 2023.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	14.256	7.703	0.000	-	0.000
Current President's Budget	13.736	7.703	13.594	-	13.594
Total Adjustments	-0.520	0.000	13.594	-	13.594
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.520	-			
• Adjustments to Budget Year	-	-	13.594	-	13.594

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S910: *SOF Tactical Vehicles*

Congressional Add: *Next Generation Combat Vehicles*

Congressional Add Subtotals for Project: S910

	FY 2021	FY 2022
	4.818	-
Congressional Add Subtotals for Project: S910	4.818	-

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>
---	---

<b>Congressional Add Details (\$ in Millions, and Includes General Reductions)</b>		<b>FY 2021</b>		<b>FY 2022</b>
Congressional Add Totals for all Projects		4.818		-

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of -\$0.520 million is due to a reprogramming of funds to the congressionally mandated Small Business Innovative Research (SBIR) / Small Business Technology Transfer (STTR) programs.

FY 2022: None.

FY 2023: Funding increase of \$13.594 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Schedule: None.

Technical: None.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>				<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S910: <i>SOF Tactical Vehicles</i>	46.082	13.736	7.703	13.594	-	13.594	6.025	6.112	5.840	5.957	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Family of Special Operations Vehicles (FSOV) program develops, tests, and evaluates Special Operations Forces (SOF) Tactical Vehicles and associated modifications. FSOV engages in annual technology insertion efforts, to include rapid prototyping/fielding efforts targeted at ground vehicle capability enhancements across the mobility, survivability, payload, and durability spectrum. The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability. The current family of SOF tactical vehicles include: light mobility vehicles; medium mobility vehicles; non-standard commercial vehicles; and heavy mobility vehicles.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> FSOV	8.918	7.703	13.594
<p><b>Description:</b> Funding provides for design/engineering, test, and evaluation costs related to capability upgrades in the following areas: Survivability; Lethality; Signature Management; Mobility/Performance; Communications; and Product Development. These capability upgrades and Engineering Change Proposals (ECPs) are incorporated across the FSOV portfolio of vehicles: Ground Mobility Vehicle (GMV 1.1); Non-Standard Commercial Vehicle (NSCV); Light Tactical All-Terrain Vehicle (LTATV); Mine Resistant Ambush Protected (MRAP) Vehicle; and the Joint Light Tactical Vehicle (JLTV).</p> <p><b>FY 2022 Plans:</b> Continue the design/development and integration of ECPs that implement capability upgrades and improves the performance of the NSCV, GMV 1.1, LTATV, MRAP, and JLTV platforms. Continue integration and testing of designated Counter-Unmanned Aerial System (C-UAS)/Precision Strike System (PSS) on vehicles platforms. In addition, initiate development and Test and Evaluation phase of autonomous integration into LTATV. FY 2022 funding also includes the technology development and/or insertion efforts for Alternative Position Navigation Timing (A-PNT), Signature Reduction, 360 degree situational awareness (SA), NSCV Blast Vulnerability study, and other SOF mobility platform efforts.</p> <p><b>FY 2023 Plans:</b> Continues the development and integration of ECPs that implement capability upgrades and improves the performance of NSCV, GMV 1.1, LTATV, MRAP and JLTV platforms. Continues the development, integration and testing of C-UAS/PSS, Signature Reduction, and 360 degrees SA on vehicle platforms. FY 2023 funding also includes the development, integration and testing of Autonomous Capabilities, Test and Evaluation of LTATV Hybrid/Electric, and JLTV SOF Mods and other SOF mobility platforms. Completes A-PNT and NSCV Blast Vulnerability Study.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
--	---	---

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023
Increase of \$5.891 million will support GMV 1.1, LTATV, and NSCV test and evaluation validation efforts for Automotive Command, Control, Communications, Computers, and Intelligence (C4I). Increase will also allow for continued modernization of FSOV fleet, development of SOF JLTV ECPs, development and testing of Signature Management ECPs, development of integrated battlefield 360 SA systems, communication kit ECPs, and performance improvements.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.918	7.703	13.594

	FY 2021	FY 2022
<b>Congressional Add:</b> Next Generation Combat Vehicles	4.818	-
<b>FY 2021 Accomplishments:</b> Funding was used to demonstrate the applicability of carbon fiber and graphitic carbon foam and their potential to reduce overall vehicle weight, while simultaneously reducing maintenance and sustainment activities that are normally associated with traditional vehicle designs. Program increase was used to collaborate with the Army on carbon fiber and lightweight carbon foam materials, as well as enhance our existing efforts.		
<b>Congressional Adds Subtotals</b>	4.818	-

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204TACVEH: <i>Tactical Vehicles</i>	33.148	36.806	51.605	-	51.605	58.386	58.654	60.075	24.605	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Apply SOF-Peculiar modifications to service common or Commercial Off The Shelf (COTS) vehicles whenever possible. Otherwise, incorporate purpose-built, Non-Developmental Item, or modified COTS vehicles if/when service solution is unavailable.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
--	---	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Family of Special Operations Vehicles (FSOV) Ground Mobility Vehicle (GMV) 1.1 Capability Enhancements / Engineering Change Proposal (ECP) Development	Various	Various : Various	15.594	1.350	Nov 2020	1.222	Feb 2022	1.000	May 2023	-		1.000	Continuing	Continuing	-
FSOV Non-Standard Commercial Vehicle (NSCV) Capability Enhancements / ECP Development	Various	Various : Various	6.804	1.650	Nov 2020	-		0.594	Jul 2023	-		0.594	Continuing	Continuing	-
FSOV Light Tactical All-Terrain Vehicle (LTATV) Capability Enhancements / ECP Development	Various	Various : Various	0.985	0.700	Jul 2021	3.031	Dec 2021	0.500	Nov 2022	-		0.500	Continuing	Continuing	-
Mine Resistant Ambush Protected (MRAP) Vehicle Capability Enhancements/ ECP Development	Various	Various : Various	0.586	1.100	Nov 2020	2.300	Jan 2022	1.000	Mar 2023	-		1.000	Continuing	Continuing	-
FSOV Joint Light Tactical Vehicle (JLTV) Capability Enhancements / ECP Development	Various	Various : Various	0.750	1.000	Nov 2020	-		4.000	Dec 2022	-		4.000	Continuing	Continuing	-
FSOV GMV 1.1 and NSCV Survivability Enhancement/ Improvement Efforts	Various	Various : Various	1.586	0.450	Feb 2021	0.650	Apr 2022	0.750	Mar 2023	-		0.750	Continuing	Continuing	-
Next Generation Combat Vehicles Congressional Plus-Up	Various	Various : Various	-	4.818	May 2021	-		-		-		-	0.000	4.818	-
Prior Year Funding	Various	Various : Various	0.385	-		-		-		-		-	0.000	0.385	-
Prior Year Funding (OCO)	C/Various	Various : Various	0.725	-		-		-		-		-	0.000	0.725	-
<b>Subtotal</b>			27.415	11.068		7.203		7.844		-		7.844	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
--	---	---

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Funding	Various	Various : Various	4.476	-		-		-		-		-	0.000	4.476	-
<b>Subtotal</b>			4.476	-		-		-		-		-	0.000	4.476	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
GMV 1.1 Test and Evaluation Validation Efforts (Automotive, Command, Control, Communications, Computers, and Intelligence (C4I), Ballistics, Operator Events)	Various	Various : Various	0.721	1.363	Jan 2021	0.250	Mar 2022	1.500	Mar 2023	-		1.500	Continuing	Continuing	-
NSCV Test and Evaluation Validation Efforts (Automotive, C4I, Ballistics, Operator Events)	Various	Various : Various	2.600	1.305	Nov 2020	0.250	Mar 2022	2.000	Jan 2023	-		2.000	Continuing	Continuing	-
LTATV Test and Evaluation Efforts	Various	Various : Various	1.181	-		-		2.250	Jan 2023	-		2.250	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.689	-		-		-		-		-	0.000	9.689	-
<b>Subtotal</b>			14.191	2.668		0.500		5.750		-		5.750	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	46.082	13.736	7.703	13.594	-	13.594	Continuing	Continuing	N/A

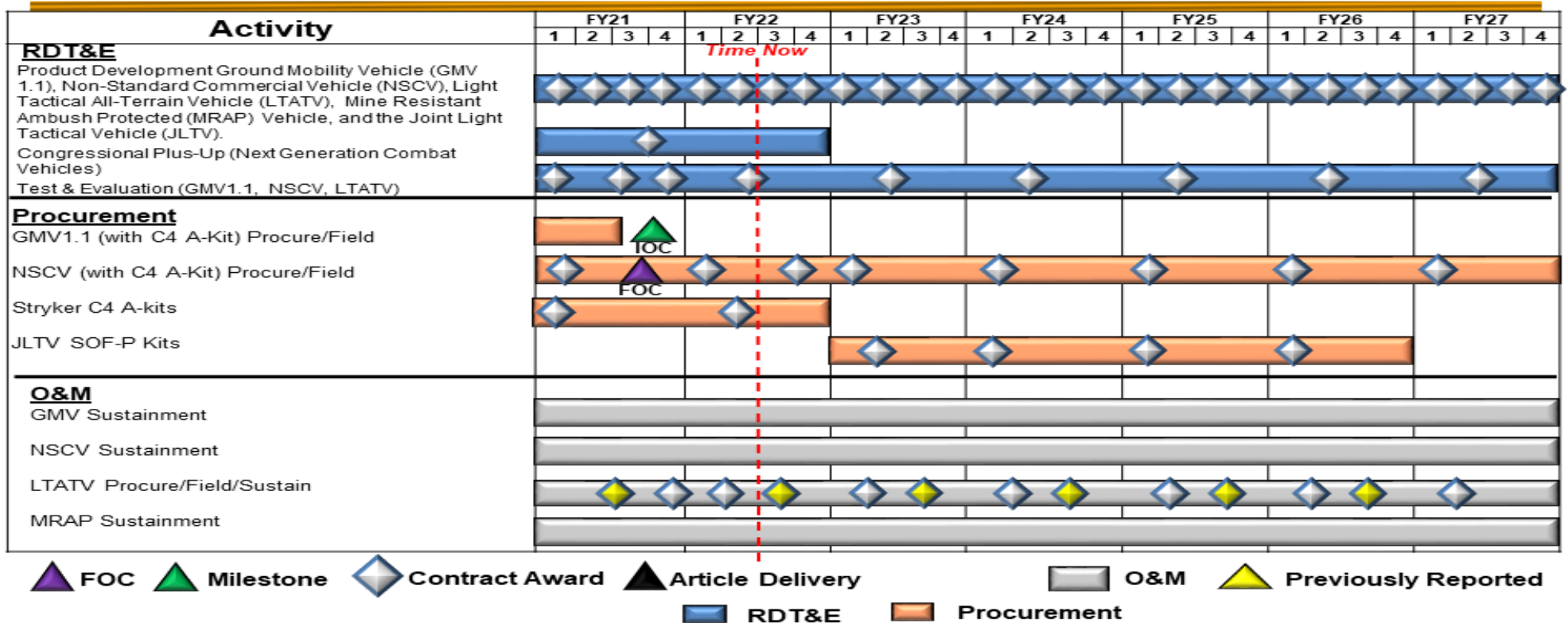
**Remarks**

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160480BB / SOF Tactical Vehicles

Project (Number/Name)  
S910 / SOF Tactical Vehicles

# Family of Special Operations Vehicles (FSOV) Schedule



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
--	---	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Family of Special Operations Vehicles (FSOV)</i></b>				
Ground Mobility Vehicle (GMV) 1.1 Product Development	1	2021	4	2027
Non-Standard Commercial Vehicle (NSCV) Product Development	1	2021	4	2027
Light Tactical All-Terrain Vehicle (LTATV) Product Development	1	2021	4	2027
Mine Resistant Ambush Protected (MRAP) Vehicle Product Development	1	2021	4	2027
Joint Light Tactical Vehicle (JLTV) Product Development	1	2021	4	2027
Next Generation Combat Vehicles Congressional Plus-Up	1	2021	4	2022
GMV 1.1 Test & Evaluation	1	2021	4	2027
NSCV Test & Evaluation	1	2021	4	2027
LTATV Test & Evaluation	1	2021	4	2027

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	578.657	66.037	62.630	82.645	-	82.645	136.731	219.661	271.385	238.813	Continuing	Continuing
S0417: <i>Underwater Systems</i>	504.687	49.219	45.324	58.309	-	58.309	113.141	194.512	155.378	122.689	Continuing	Continuing
S1684: <i>Surface Craft</i>	73.970	16.818	17.306	24.336	-	24.336	23.590	25.149	116.007	116.124	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for the Engineering and Manufacturing Development (EMD) of Special Operations Forces (SOF) Surface and Undersea Mobility platforms. This program element also provides for pre-acquisition activities to quickly respond to new requirements for SOF surface and undersea mobility, looking at multiple alternatives to include cross-platform technical solutions, service-common solutions, Commercial-Off-The-Shelf technologies, and new development efforts. These technologies will be pursued via rapid prototyping efforts when appropriate.

The Underwater Systems project provides for the EMD of combat submersibles, SOF combat diving systems, underwater support systems, and underwater equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component, prototype development, and exploitation of emerging technology opportunities to deliver enhanced capabilities) to respond to emerging requirements. These submersibles, equipment, and diving systems are used by SOF in the conduct of infiltration/extraction, personnel/material recovery, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems, diving systems, and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions.

The Surface Craft project provides for the EMD for all combatant craft, combatant craft mission equipment, pre-planned product improvement, and technology insertion to meet the unique requirements of SOF. This project element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to quickly respond to new requirements for maritime craft and subsystems. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct operations associated with SOF maritime missions.

The total cost of the Combat Diving Middle Tier of Acquisition effort is \$22.237 million (FY 2023 - FY 2027), including RDT&E and procurement of prototype units. The Combat Diving effort is fully funded across the Future Years Defense Program.

The total cost of the Maritime Precision Engagement (MPE) Middle Tier of Acquisition effort is \$11.703 million (FY 2023 - FY 2027), including Research, Development, Test, and Evaluation (RDT&E) and procurement of prototype units. The MPE effort is fully funded across the Future Years Defense Program.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>
---	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	68.538	58.430	0.000	-	0.000
Current President's Budget	66.037	62.630	82.645	-	82.645
Total Adjustments	-2.501	4.200	82.645	-	82.645
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.200			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.501	-			
• Adjustments to Budget Year	-	-	82.645	-	82.645

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** S0417: *Underwater Systems*

Congressional Add: *SOF Combat Diving Diver Propulsion*

	<b>FY 2021</b>	<b>FY 2022</b>
	8.383	4.200
Congressional Add Subtotals for Project: S0417	8.383	4.200
Congressional Add Totals for all Projects	8.383	4.200

**Change Summary Explanation**

Funding:

FY 2021: Net decrease of \$2.501 million is due to a reprogramming of funds to the Congressionally mandated Small Business Innovative (SBIR)/Small Business Technology Transfer (STTR) programs.

FY 2022: Net increase of \$4.200 million is due to a Congressional Add for diver propulsion.

FY 2023: Funding increase of \$82.465 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

FY 2023 funding request was reduced by \$1.820 million to account for the availability of prior year execution balances.



**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>				<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S0417: <i>Underwater Systems</i>	504.687	49.219	45.324	58.309	-	58.309	113.141	194.512	155.378	122.689	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the Engineering and Manufacturing Development (EMD) of combat underwater submersibles, Special Operations Forces (SOF) combat diving systems, underwater support systems, and underwater equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emerging requirements. These submersibles, equipment, and diving systems are used by SOF in the conduct of infiltration/extraction, personnel/material recovery, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems, diving systems, and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. These technologies will be pursued via rapid prototyping efforts when appropriate.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Sea, Air, and Land (SEAL) Delivery Vehicle (SDV MK 11)/Shallow Water Combat Submersible (SWCS)	2.110	4.348	1.070
<p><b>Description:</b> The SDV MK 11 (Acquisition program name: SWCS) provides for the design, development and test of one EDM and 10 production units to replace the legacy MK 8 MOD 1 SDV system. The SDV MK 11 is a free-flooding combat submersible mobility platform suitable for transporting and deploying SOF and their payloads for a variety of SOF missions. The SDV MK 11 will be deployable from a Dry Deck Shelter (DDS), surface ships, and land. The MK 11 system includes the MK 11 vehicle and MK 11 support equipment, comprised of Mission Support Equipment (MSE), Pack-Up Kit (PUK), and Transportation and Handling (T&amp;H). It also includes integration efforts with the current DDS and development of product improvements accomplished throughout the lifecycle of the system. The SWCS line item transitioned to SDV beginning in FY 2022 to better align with historical terminology and material solution.</p> <p><b>FY 2022 Plans:</b> Continue SDV MK 11 Pre-Planned Product Improvement (P3I). P3I enhancements include, but are not limited to: Power and Energy; Acoustic and Radio Frequency indicators and warning capabilities; Electro-Optical Infrared (EO/IR) sensor; payload improvements; and self recovery.</p> <p><b>FY 2023 Plans:</b> Continues SDV MK 11 P3I. P3I enhancements include, but are not limited to: Power and Energy; Acoustic and Radio Frequency indicators and warning capabilities; EO/IR sensor, payload improvements; and self recovery.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Decrease of \$3.278 million is due to the transition of advanced sensors and propulsion enhancements from development to production.				
<p><b>Title:</b> Dry Combat Submersible (DCS) Now</p> <p><b>Description:</b> The DCS provides for the advanced development, engineering, manufacturing, and testing efforts for a surface-launched, dry, diver lock-in/lock-out vessel capable of inserting and extracting SOF and/or payloads into denied areas of one EDM and two production units. The USSOCOM tested one submersible prototype to validate test methodologies, commercial classification, and SOCOM safety certification processes and will continue to use the prototype to evaluate capability enhancing technologies and reduce risk in the DCS program. This program includes funding for enhanced warfighter capabilities such as Mid-Water Column Lock-In/Lock-Out, depressurization pump, and submarine interoperability.</p> <p><b>FY 2022 Plans:</b> Continue the incorporation of P3I to increase the operational capability of DCS to include Navy submarine/grey hull interoperability, efforts to address obsolescence, and the continued insertion of Undersea Craft Mission Equipment (UCME) developed technologies. Begin government acceptance testing of DCS 3.</p> <p><b>FY 2023 Plans:</b> Continues the incorporation of P3I of DCS to include Navy submarine/grey hull interoperability, efforts to address obsolescence, and the continued insertion of UCME developed technologies. Conducts Follow On Operational Test and Evaluation (FOT&amp;E).</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$2.639 million is due to reduced DCS test and evaluation as well as management services.</p>		10.907	6.988	4.349
<p><b>Title:</b> Classified Sub-Project</p> <p><b>Description:</b> Details provided under separate cover.</p> <p><b>FY 2022 Plans:</b> Details provided under separate cover</p> <p><b>FY 2023 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$27.794 million. Details will be provided under separate cover.</p>		7.455	6.055	33.849
<p><b>Title:</b> Dry Deck Shelter (DDS) Modernization</p> <p><b>Description:</b> DDS provides for the P3I, testing, and integration of specialized underwater systems to meet the unique requirements of SOF, and compatibility with the submarine fleet. The current DDS is a certified diving system, which attaches to</p>		1.162	1.057	3.081

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>modified host submarines that provides for insertion of SOF forces and platforms. Funding supports product improvements to the current DDS, as well as associated diver equipment for in-service submarine support systems, unmanned underwater vehicles, and follow on development efforts for future SOF payloads.</p> <p><b>FY 2022 Plans:</b> Continue development of field changes necessary to extend the useful life of the DDS and increase capacity to carry larger payloads.</p> <p><b>FY 2023 Plans:</b> Continues development of field changes necessary to extend the useful life of the DDS and increase capacity to carry larger payloads. Begins studies and analysis for future DDS.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$2.024 million is due to continued development of field changes to address equipment obsolescence and required studies to support future DDS.</p>			
<p><b>Title:</b> SOF Combat Diving (CBDIV)</p> <p><b>Description:</b> SOF Combat Diving provides the EMD, testing, and rapid prototyping of SOF peculiar diving equipment providing the SOF combat diver the ability to engage the enemy and conduct operations. SOF Combat Diving will support the SDV, SWCS, DCS, and surface craft with the conduct of infiltration/extraction, material recovery, underwater ship attack, beach clearance, and other missions. Technologies include, but are not limited to, commercial and developmental life support, maneuverability and propulsion, diver navigational accuracy and situational awareness, environmental protection, and communications between dive teams as well as between divers and external vessels/craft. SOF Combat Diving is designated a Middle Tier of Acquisition (MTA) program, which uses the rapid prototyping pathway.</p> <p><b>FY 2022 Plans:</b> Continue development capabilities, prototyping, to include test and evaluation of environmental protection, navigation, communication and propulsion, and an excursion capable underwater breathing apparatus equipment material solution analysis and advanced component prototype development.</p> <p><b>FY 2023 Plans:</b> Continues development, prototyping and advanced development to include testing and evaluation of environmental protection, navigation, communication and propulsion equipment as well as an underwater breathing apparatus equipment material solution analysis.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>	2.080	3.183	3.249

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022			
<b>Appropriation/Budget Activity</b> 0400 / 7		<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	
Increase of \$0.066 million is due to the testing of multiple diver systems.					
<p><b>Title:</b> Undersea Craft Mission Equipment (UCME)</p> <p><b>Description:</b> The UCME provides a rapid response capability to support SOF underwater craft and diver systems, subsystems, and their emerging requirements. The UCME provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability to leverage and exploit emerging technologies within the maritime SOF undersea capability portfolio. UCME focuses on spearheading specific Technology Readiness Level (TRL) 6 technology for compatibility, maturity, marinization, and successful transition to SOF undersea craft programs.</p> <p><b>FY 2022 Plans:</b> Continue development of undersea survivability enhancements; underwater and maritime domain communications; enhanced Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) and Situational Awareness (C5ISR/SA); unique power and energy capabilities; other capability enhancements and enabling technologies for assured access and building enduring advantage, aligning to National Defense Strategy (NDS) priorities.</p> <p><b>FY 2023 Plans:</b> Continues development of undersea survivability enhancements; underwater and maritime domain communications; enhanced C5ISR/SA; unique power and energy capabilities; other capability enhancements and enabling technologies for assured access and building enduring advantage, aligning to NDS priorities.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$5.814 million is due to the planned completion and transition of first increment enhanced Maritime Navigation technology projects, which provides enhanced capability to Maritime programs.</p>		15.824	18.525	12.711	
<p><b>Title:</b> MK18 Mod 1 Unmanned Underwater Vehicle (UUV)</p> <p><b>Description:</b> MK 18 Mod 1 UUV enables access to contested/denied areas in the maritime domain, provides maritime special reconnaissance capabilities and reduces risk to personnel and manned platforms. This program develops and integrates SOF-peculiar (SOF-P) modifications to the Service Common, Service resourced, Mark 18 Mod 1 UUV.</p> <p><b>FY 2022 Plans:</b> Continue payload development and integration to service common system for Naval Special Warfare specific (SOF-peculiar) requirements. Technology and payload development of Acoustic Intercept Receiver (AIR), Cognitive Router (CR), and Advanced Undersea Mission Autonomy (AUMA) for Beyond Line Of Sight (BLOS) capability.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease of \$0.968 million is to support emerging critical command requirements.</p>		0.963	0.968	-	
<p><b>Title:</b> Combatant Craft Light (CCL)</p>		0.335	-	-	

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Description:</b> CCL is a small combatant craft that supports deployment of six combat equipped SOF operators and their payloads for selected missions in multiple threat environments. Its compact form factor provides SOF with versatile mission transportability, deployment, and utility capabilities.			
<b>Accomplishments/Planned Programs Subtotals</b>	40.836	41.124	58.309

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> SOF Combat Diving Diver Propulsion	8.383	4.200
<b>FY 2021 Accomplishments:</b> Continued development of SOF Diver propulsion. Specific efforts target development, testing, certification, shore based use, Submarine and Surface craft carry-on approval of multiple battery subsystems supporting Collective and Individual diver propulsion devices. Continued development of SOF Diver communication. Unique system design improvements required for SOF diver use, developmental testing, and evaluation of resulting engineering development model systems. Specific efforts target development of Command, Control, and Communications Situational Awareness diver underwater communication, diver-to-diver voice communication and the development and testing of battery certification.		
<b>FY 2022 Plans:</b> Continued development of SOF Diver propulsion. Specific efforts target development, testing, certification, shore based use, Submarine and Surface craft carry-on approval of multiple battery subsystems supporting Collective and Individual diver propulsion devices.		
<b>Congressional Adds Subtotals</b>	8.383	4.200

**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0210US: <i>Underwater Systems</i>	20.556	23.327	45.631	-	45.631	72.705	66.759	180.899	369.549	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

• The SDV MK 11/SWCS uses full and open competition with a down select to a single contractor. The full spectrum of contracting activities are being employed for subsystem and utilized for any integration and subsystem requirements, using existing contracts where appropriate, government agencies, and new contracts as necessary. Sole source Justification and Approval (J&A) was approved and awarded to deliver final production articles to meet Full Operational Capability (FOC).

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
<ul style="list-style-type: none"><li>• The DCS Block I uses full and open competition, resulting in the selection of a single prime contractor and award of a Fixed Price Incentive Firm Target contract for three vessels.</li><li>• The DDS is currently in sustainment through a maintenance and service contract which was competitively sourced, and awarded for a five-year period. The modernization and engineering/change efforts for the six DDS in inventory are executed utilizing the existing services contract.</li><li>• SOF Combat Diving is designated an MTA program which supports rapid prototyping and is executed using existing contracts, government agencies, and new contracts competitively selected as appropriate.</li><li>• The UCME will use streamlined Federal Acquisition Regulation (FAR) contracting with existing or planned Indefinite Delivery, Indefinite Quantity, Blanket Order Agreement, University Affiliated Research Center, and Federally Funded Research and Development Center contracts and use Non-FAR Acquisition Authorities and Other Transaction Authority agreements, where appropriate.</li><li>• The UUV Program will augment a Navy service common man-portable UUV with purpose built, modular, plug-and-play sensors and payloads to meet SOF requirements.</li><li>• The CCL engineering and manufacturing development was sole source. Additional development efforts will be sole source.</li></ul>		

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
--	--	---

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SEAL Delivery Vehicle (SDV)/Shallow Water Combat Submersible (SWCS) Engineering Changes	C/Various	Various : Various	1.786	1.902	Jan 2021	4.348	Jan 2022	1.070	Jan 2023	-		1.070	Continuing	Continuing	-
Dry Combat Submersible (DCS) Enhancements / Pre-Planned Product Improvement (P3I) Changes	C/Various	Various : Various	17.569	6.830	Nov 2020	3.404	Nov 2021	2.199	Nov 2022	-		2.199	Continuing	Continuing	-
Classified Sub-Project	C/TBD	TBD : TBD	-	6.355		3.755		26.900		-		26.900	Continuing	Continuing	-
Dry Deck Shelter (DDS) Field Changes/ Enhancements	C/Various	Various : Various	-	0.828	Jan 2021	0.991	Jan 2022	2.814	Jan 2023	-		2.814	Continuing	Continuing	-
Special Operation Forces (SOF) Combat Diving-Unique Diving Technologies	Various	Various : Various	8.125	1.377	Feb 2021	1.876	Nov 2021	1.914	Feb 2023	-		1.914	Continuing	Continuing	-
SOF Combat Diving (Congressional Add)	C/Various	Various : Various	3.000	8.383	Mar 2021	4.200	Apr 2021	-		-		-	0.000	15.583	-
Undersea Craft Mission Equipment (UCME) Survivability, Navigation, C5ISR/SA, Power & Energy enhancements and other assured access technologies	C/Various	Various : Various	15.965	15.233	Dec 2020	17.948	Nov 2021	11.916	Nov 2022	-		11.916	Continuing	Continuing	-
MK18 Mod 1 Unmanned Underwater Vehicle (UUV)	C/Various	Various : Various	-	0.963	Feb 2021	0.968	Mar 2022	-		-		-	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	358.311	-		-		-		-		-	0.000	358.311	-
Prior Year Funding (Congressional Add)	C/Various	Various : Various	14.100	-		-		-		-		-	0.000	14.100	-
<b>Subtotal</b>			418.856	41.871		37.490		46.813		-		46.813	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
--	--	---

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Funding	Various	Various : Various	9.094	-		-		-		-		-	0.000	9.094	-
<b>Subtotal</b>			9.094	-		-		-		-		-	0.000	9.094	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SDV/SWCS	Various	PSU ARL / JHU-APL : Laurel, MD / State College, PA	3.946	0.208	Nov 2020	-		-		-		-	0.000	4.154	-
DCS	C/Various	Various : Various	27.119	3.527	Oct 2020	1.945	Oct 2021	1.250	Nov 2022	-		1.250	Continuing	Continuing	-
SOF Combat Diving	Various	Various : Various	2.151	0.520	Oct 2020	1.119	Oct 2021	1.129	Oct 2022	-		1.129	Continuing	Continuing	-
CCL	C/Various	Various : Various	-	0.335	Dec 2020	-		-		-		-	0.000	0.335	-
Prior Year Funding	Various	Various : Various	9.320	-		-		-		-		-	0.000	9.320	-
<b>Subtotal</b>			42.536	4.590		3.064		2.379		-		2.379	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCS	Various	Apogee : Tampa, FL	21.353	0.550	Feb 2021	1.639	Aug 2022	0.900	Aug 2023	-		0.900	Continuing	Continuing	-
Classified Sub-Project	Various	Various : Various	-	1.100		2.300		6.949		-		6.949	Continuing	Continuing	-
DDS	Various	NAVSEA : Washington, DC	2.472	0.334	Jan 2021	0.066	Jan 2022	0.267	Jan 2022	-		0.267	Continuing	Continuing	-
SOF Combat Diving	C/Various	Apogee : Tampa, FL	0.530	0.183	Dec 2020	0.188	Dec 2021	0.206	Dec 2022	-		0.206	Continuing	Continuing	-
UCME	C/Various	Various : Various	0.515	0.591	Dec 2020	0.577	Dec 2021	0.795	Dec 2022	-		0.795	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.331	-		-		-		-		-	0.000	9.331	-
<b>Subtotal</b>			34.201	2.758		4.770		9.117		-		9.117	Continuing	Continuing	N/A





**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 United States Special Operations Command

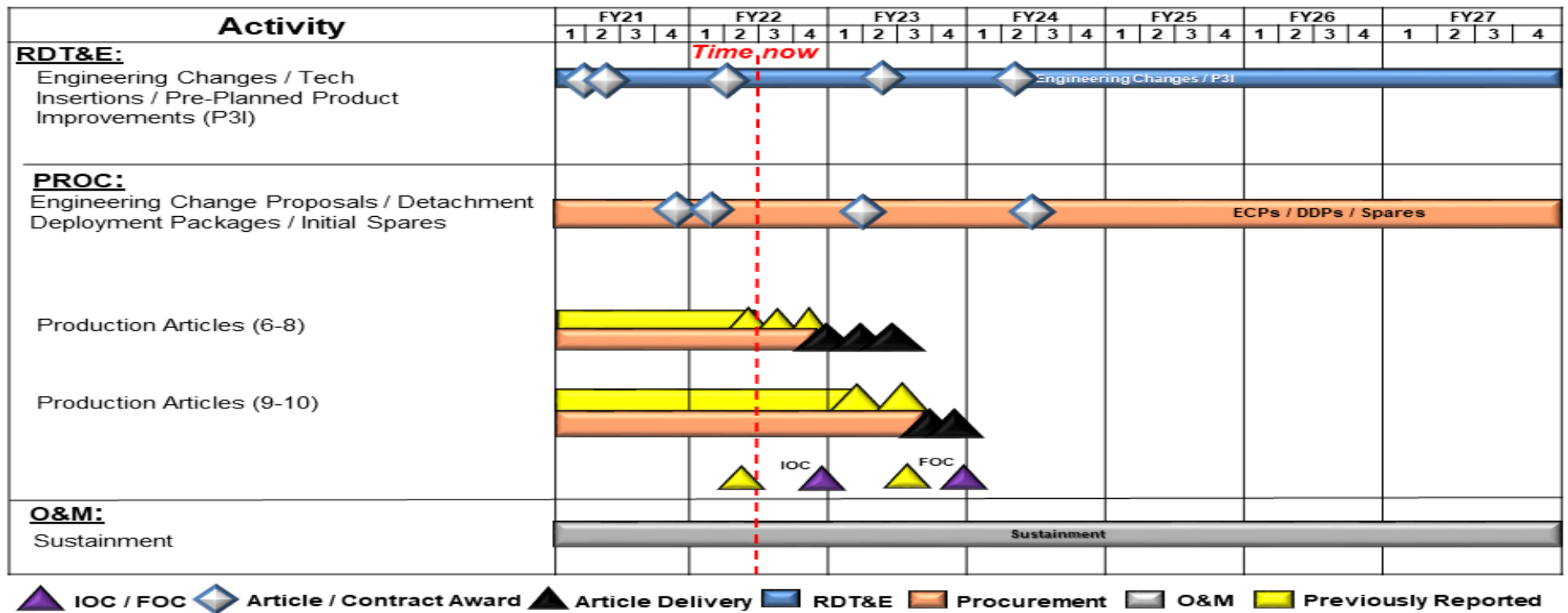
**Date:** April 2022

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160483BB / *Maritime Systems*

**Project (Number/Name)**  
S0417 / *Underwater Systems*

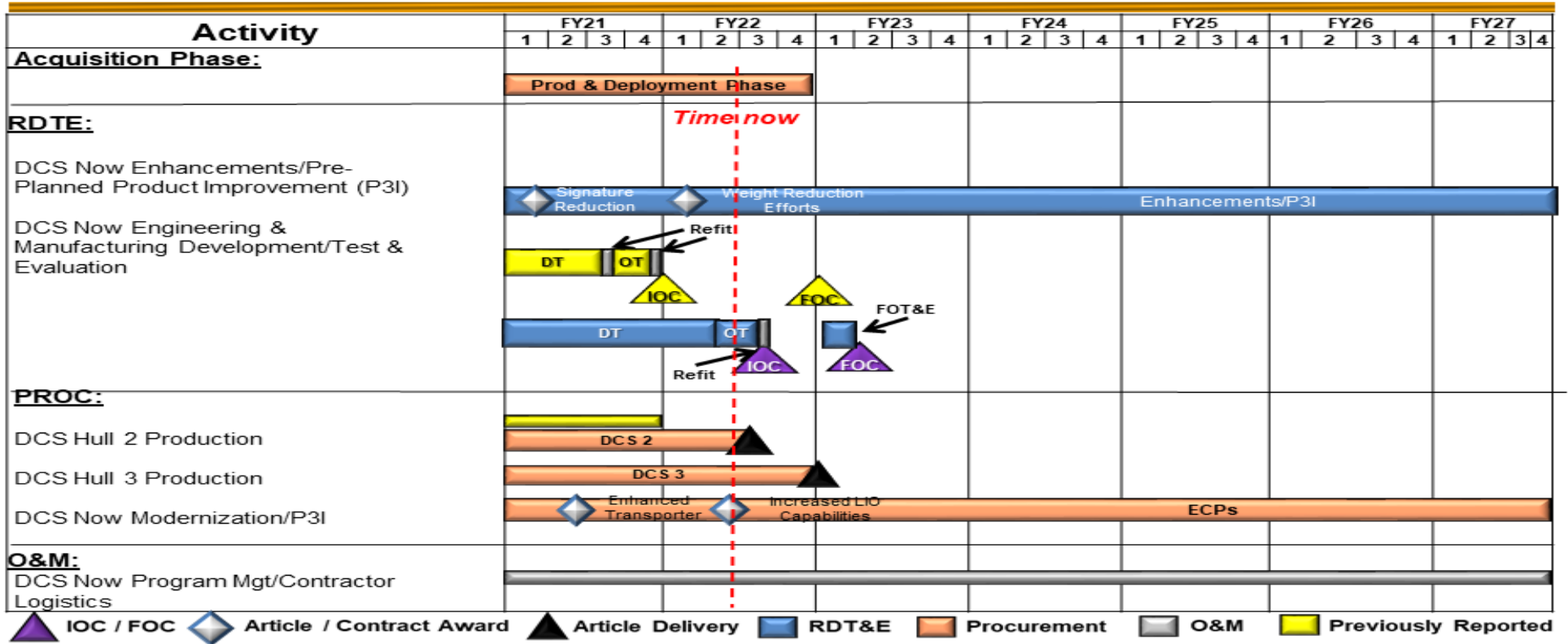
## SEAL Delivery Vehicle MK 11 Shallow Water Combat Submersible Schedule



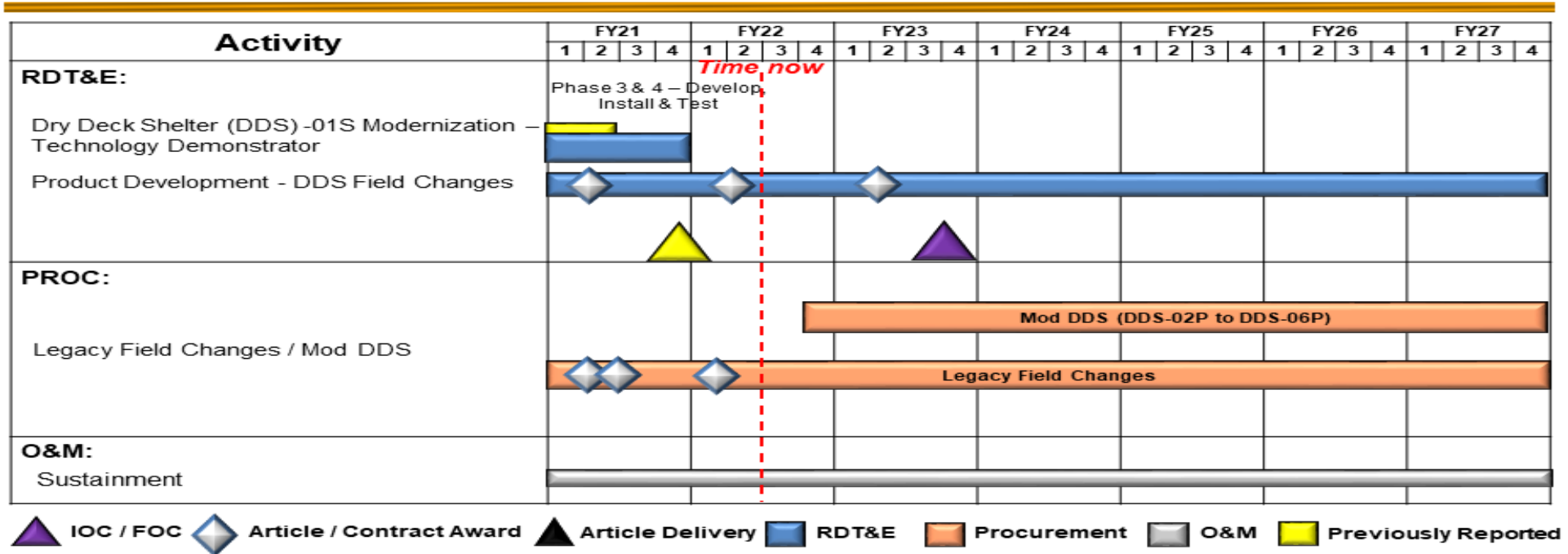
**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / Maritime Systems	<b>Project (Number/Name)</b> S0417 / Underwater Systems

# Dry Combat Submersible (DCS) Schedule



# Dry Deck Shelter (DDS) Schedule



**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

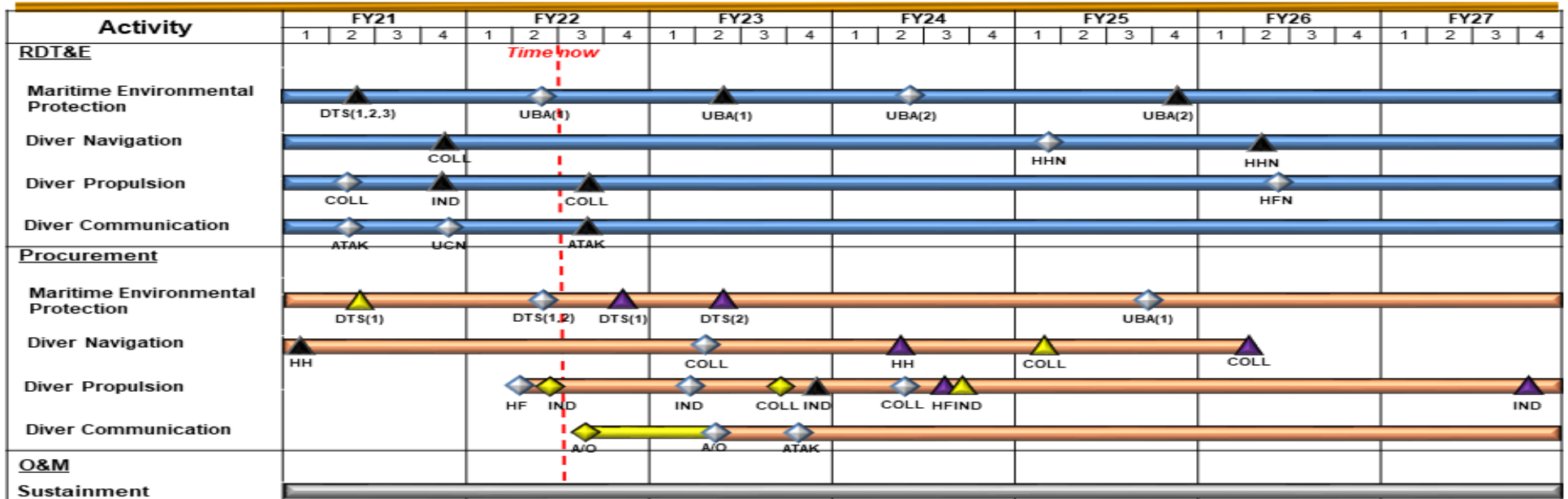
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S0417 / Underwater Systems

# Special Operations Forces Combat Diving Schedule



RDT&E	Procurement	O&M	Previously Reported	Article Delivery	Article / Contract Award	FOC
<b>MEP:</b>		<b>Navigation:</b>		<b>Propulsion:</b>		<b>Communication:</b>
Diver Thermal System (DTS)		Handheld (HH)		Handsfree Next (HFN)		Android Tactical Assault Kit (ATAK)
(1) Tube Suits		Collective (COLL)		Handsfree (HF)		Acoustic / Optical (A/O)
(2) Electrical Systems		Handheld Next (HHN)		Individual (IND)		U/W Comms Network (UCN)
(3) Chemical Systems				Collective (COLL)		
(1) Excursion UBA						
(2) HE02 UBA						

**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

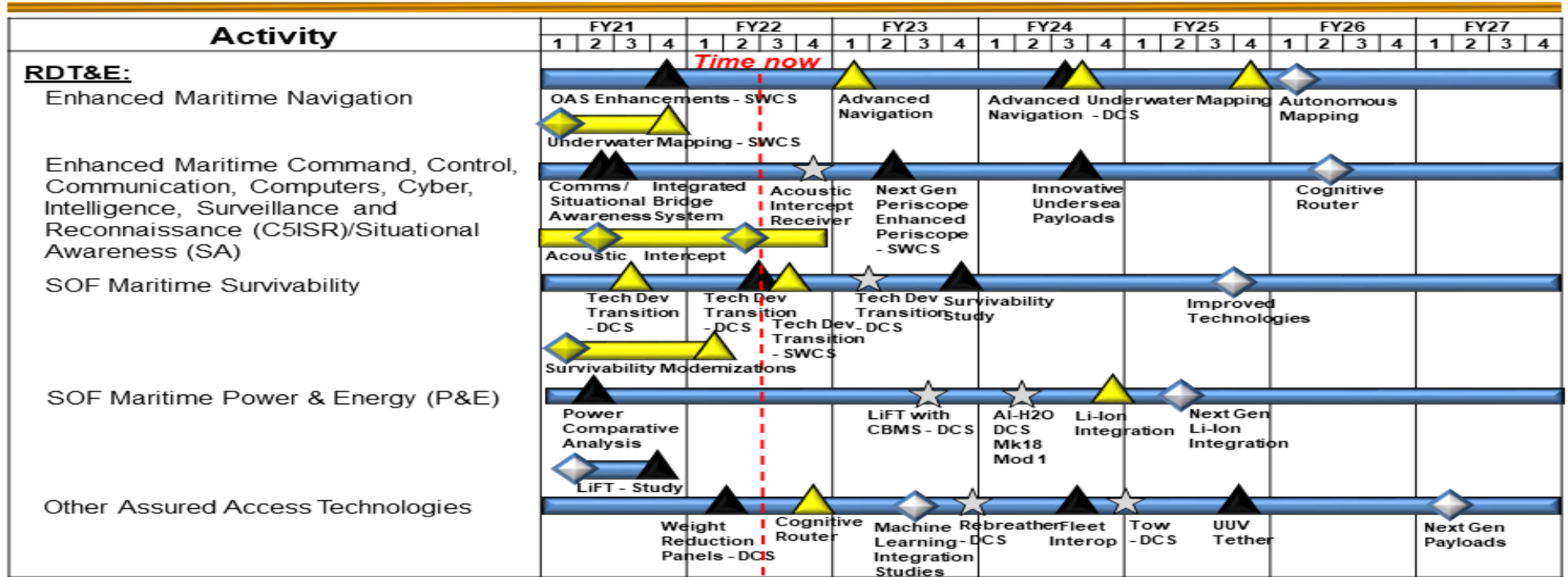
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S0417 / Underwater Systems

# Undersea Craft Mission Equipment Schedule



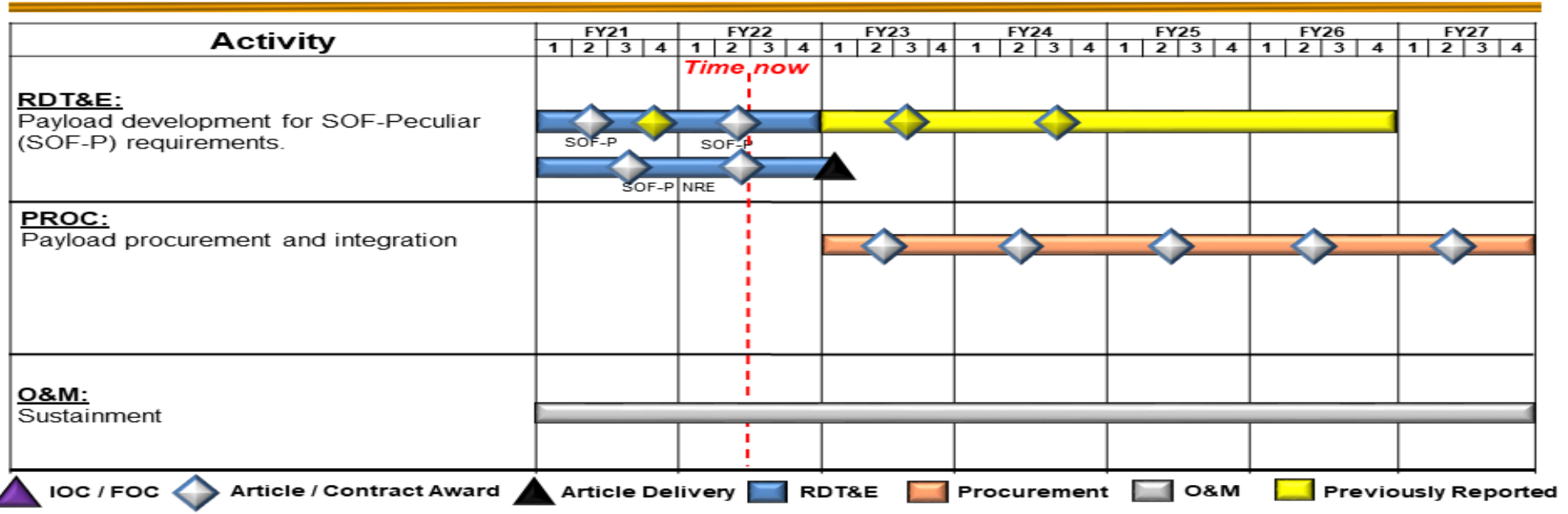
▲ IOC/FOC    
 ◆ Article / Contract Award / Obligation    
 ▲ Article Delivery    
 ★ Article Transition    
 ■ RDT&E    
 ■ PROC    
 ■ O&M    
 ■ Previously Reported

■ CBMS – Critical Battery Management System    
 ■ Al-H2O – Aluminum SeaWater Battery

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>

## MK 18 Mod 1 Unmanned Underwater Vehicle Schedule



**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command






Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S0417 / Underwater Systems

## Combatant Craft Light Schedule

Activity	FY21				FY22				FY23				FY24				FY25				FY26				FY27			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>RDT&amp;E:</b> Test & Evaluation/Integration					<i>Time now</i>																							
<b>PROC:</b> Initial Operational Capability (IOC)																												
Production (FRP 3 - 4)																												
<b>O&amp;M:</b> Sustainment																												

 IOC / FOC  
  Article / Contract Award  
  Article Delivery  
  RDT&E  
  Procurement  
  O&M  
  Previously Reported



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
--	--	---

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SEAL Delivery Vehicle (SDV)/Shallow Water Combat Submersible (SWCS)</i></b>				
Engineering Changes/Technology Insertions/Pre-planned Product Improvements (P3I)	1	2021	4	2027
<b><i>Dry Combat Submersibles (DCS)</i></b>				
Block I Enhancements/P3I	1	2021	4	2027
Block I Developmental Test and Evaluation	1	2021	2	2022
Block I Operational Test and Evaluation	2	2022	3	2022
<b><i>Dry Deck Shelter Modernization (DDS)</i></b>				
Phase 3 & 4 Development, Install, and Test - Modernization Technology Demonstrator	1	2021	4	2021
Product Development DDS Field Changes	1	2021	4	2027
<b><i>Special Operation Forces (SOF) Combat Diving</i></b>				
Maritime Environmental Protection Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Navigation Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Propulsion Rapid Prototyping, Test, and Integration	1	2021	4	2027
Diver Communication Rapid Prototyping, Test, and Integration	1	2021	4	2027
<b><i>Undersea Craft Mission Equipment (UCME)</i></b>				
Enhanced Maritime Navigation	1	2021	4	2027
Enhanced Maritime Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR)/Situational Awareness (SA)	1	2021	4	2027
Special Operations Forces (SOF) Maritime Survivability	1	2021	4	2027
SOF Maritime Power & Energy (P&E)	1	2021	4	2027
Other Assured Access Technologies	1	2021	4	2027
<b><i>MK18 Mods 1 Unmanned Underwater Vehicle (UUV)</i></b>				
MK18 Mods 1 UUV Pre-Planned Product Improvement - Payload Development	1	2021	4	2022

**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
--	--	---

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Combatant Craft Light (CCL)</b>				
Test and Evaluation/Integration	1	2021	4	2021

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>				<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
S1684: <i>Surface Craft</i>	73.970	16.818	17.306	24.336	-	24.336	23.590	25.149	116.007	116.124	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for Engineering and Manufacturing Development of combatant craft, combatant craft mission equipment, Pre-Planned Product Improvement (P3I), and technology insertion to meet the unique requirements of Special Operations Forces (SOF). This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to quickly respond to new requirements for maritime craft and subsystems. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully conduct operations associated with SOF maritime missions.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<p><b>Title:</b> Combatant Craft Medium (CCM)</p> <p><b>Description:</b> The CCM is a semi-enclosed multi-mission combatant craft for platoon-size maritime mobility in maritime contested environments. It is multi-mission capable, including Maritime Interdiction, Insert/Extract, and Visit, Board, Search, and Seizure (VBSS) Operations. The CCM is Naval Special Warfare's (NSW) craft-of-choice for long-range, high-payload SOF mobility operations in contested environments. The CCM has NSW's best Iron Triangle: 40 knot (kt) speed; 4 crew + 19 passengers (pax)/10,000 pound (lb) payload; and 600 nautical miles (nm) range. The CCM payload capacity enables inclusion of shock mitigating seats, which is critical for ride quality, operator tactical readiness, and operator health. At 60 feet long, CCM is C-17/ C-5 transportable and can launch/recover by well deck or shore based trailer.</p> <p><b>FY 2022 Plans:</b> Begin aft enclosure craft integration and testing. Continue survivability enhancements, and Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) upgrades. Complete Joint Threat Warning System (JTWS) integration.</p> <p><b>FY 2023 Plans:</b> Completes aft enclosure integration and testing. Continues development and testing of craft and C5ISR upgrades. Continues focus on survivability enhancements.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$2.611 million due to extensive survivability testing, design of service life enhancing capabilities, and interoperability testing.</p>	2.161	0.989	3.600
<p><b>Title:</b> Combatant Craft Heavy (CCH)</p> <p><b>Description:</b> The CCH provides platoon-size maritime surface mobility. The current CCH is the Sea, Air, Land Insertion, Observation and Neutralization (SEALION) craft. The SEALION is a fully-enclosed, climate-controlled, semi-submersible craft</p>	1.228	0.933	3.953

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
--	--	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

<p>that operates in contested environments. The SEALION is NSW's most versatile and survivable combatant craft and the craft-of-choice for sensitive maritime intelligence, surveillance, and reconnaissance missions. Iron Triangle: 40 kt speed; 7 crew + 12 pax / 3,300 lb payload; and 400 nm range. The SEALION payload capacity enables inclusion of shock mitigating seats, which is critical for ride quality, operator tactical readiness, and operator health. At 77+ feet long, the SEALION is C-17/C-5 transportable and can launch/recover by well deck, shore based mobile travel lift, or crane.</p>			
---	--	--	--

<p><b>FY 2022 Plans:</b> Continue development and integration of C5ISR/SA and survivability enhancements. Complete JTWS integration.</p>			
--	--	--	--

<p><b>FY 2023 Plans:</b> Continues development and integration of C5ISR/SA and survivability enhancements.</p>			
--	--	--	--

<p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$3.020 million is to supports increased test range costs and support through NSW Capability Development Document, to include development for Technical Data Package for CCH-IV.</p>			
--	--	--	--

<p><b>Title:</b> Combatant Craft Mission Equipment (CCME)</p>	6.574	7.788	7.956
---	-------	-------	-------

<p><b>Description:</b> The CCME provides a rapid response capability to support SOF combatant craft systems, subsystems, and their emerging requirements. The CCME provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability to leverage and exploit emerging technologies within the maritime SOF surface capability portfolio. CCME focuses on spearheading specific Technology Readiness Level (TRL) 6 technology for compatibility, maturity, design for the marine environment, and successful transition to SOF combatant craft programs.</p>			
--	--	--	--

<p><b>FY 2022 Plans:</b> Continue evaluation and development of surface survivability enhancements; enhanced C5ISR/SA capabilities; unique power and energy capabilities such as hybrid electric propulsion; Assured Positioning, Navigation and Timing (A-PNT); and enabling technologies for assured access and against near peer threats, aligning to National Defense Strategy (NDS) priorities.</p>			
--	--	--	--

<p><b>FY 2023 Plans:</b> Continues evaluation and development of surface survivability enhancements; enhanced C5ISR/SA capabilities; unique power and energy capabilities such as hybrid electric propulsion; Assured PNT; and enabling technologies for assured access and building enduring advantage, aligning to NDS priorities.</p>			
--	--	--	--

<p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.168 million is due to increased complexity of technology focus areas.</p>			
---	--	--	--

<p><b>Title:</b> Combatant Craft Assault (CCA)</p>	0.714	1.049	3.284
--	-------	-------	-------

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command	<b>Date:</b> April 2022
--	-------------------------

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
--	--	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
---	----------------	----------------	----------------

**Description:** The CCA is a combatant craft for squad-size maritime mobility operations in contested environments. The CCA is NSW's best craft for Visit, Board, Search, Seizure operations. It is the craft-of-choice for maritime interdiction and boarding operations because of the open deck space, maneuverability, and interoperability with an Afloat Forward Staging Base. Iron Triangle: 40 kt speed; 5 crew + 10 pax/5,000 lb payload; and 300 nm range. At 41 feet long, CCA is air transportable by C-130/ C-17/C-5 and can launch/recover by crane, davit, well deck, or shore based trailer.

**FY 2022 Plans:**  
Continue integration and testing of Combatant Craft Forward Looking Infrared 2 (CCFLIR2) mast design and Communications box/Tactical Operations Center Network (TOCNET).

**FY 2023 Plans:**  
Completes integration and testing of CCFLIR2 mast design and Communications box/TOCNET. Begins integration and testing of JTWS. Begins integration of Maritime Tactical Mission Networking (MTMN).

**FY 2022 to FY 2023 Increase/Decrease Statement:**  
Increase of \$2.235 million begins the JTWS integration and testing requirements and MTMN integration.

<b>Title:</b> Maritime Precision Engagement (MPE)	6.141	6.547	4.943
---	-------	-------	-------

**Description:** The MPE is a family of standoff, loitering, man-in-the-loop weapons systems deployed on combatant craft and capable of targeting individuals, groups, vehicles, high value targets, and small oceangoing craft with low collateral damage. The MPE consists of combatant craft alterations, integration of the MK 50 Remote Weapon System (RWS), and munition launcher systems. Munitions for this effort are funded through PEO SOF Warrior.

**FY 2022 Plans:**  
Continue development of craft modifications and operator control station to refine a fully integrated operational capability. Continue development and testing of the munition launcher B-kit to refine the EDM-2 MPE launcher and EDM-2 MK 50 RWS B-Kit. Continue development of CCM A-kit modifications and testing in preparation for transition to production. Begin planned product improvements.

**FY 2023 Plans:**  
Continues development of craft modifications and operator control station to refine a fully integrated operational capability. Continues development and testing of the munition launcher B-kit to refine the EDM-2 MPE launcher and EDM-2 MK 50 RWS B-Kit. Continues development of CCM A-kit modifications and testing in preparation for transition to production. Continues planned product improvements.

**FY 2022 to FY 2023 Increase/Decrease Statement:**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Decrease of \$1.604 million is due to completion of MK 50 RWS testing and transitioning to full production.			
<b>Title:</b> Special Operations Craft Riverine (SOCR)	-	-	0.600
<b>Description:</b> SOCR is an aluminum-hull mobility platform for use in riverine and littoral areas for short range insertion of SOF in low to medium threat environments.			
<b>FY 2023 Plans:</b> Begins C5ISR and situational awareness system enhancements. Begins study for Next-Generation Riverine capability.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase of \$0.600 million is due to initial technology enhancement efforts and Next-Generation Riverine Capability study.			
<b>Accomplishments/Planned Programs Subtotals</b>	16.818	17.306	24.336

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204SCCS: <i>Combatant Craft Systems</i>	33.278	17.080	85.566	-	85.566	72.033	70.414	54.544	50.676	Continuing	Continuing

**Remarks**

N/A

**D. Acquisition Strategy**

- The CCM was a two-phase source selection process. Phase I involved a Small Business Set-Aside competition for two vendors to design, build and deliver test articles. Phase II selected a single vendor to provide a fully integrated baseline craft system for test and evaluation with options for production, engineering support, and contractor logistics support.
- The CCH SEALION I & II were transitioned from United States Navy advanced technology demonstrator craft to USSOCOM. Sustainment for the SEALION I & II is conducted via Special Operations Forces Support Activity (SOFSA). The SEALION III is Sole Source to the Original Equipment Manufacturer (OEM) in order to take advantage of previous Government investments in manufacturing infrastructure for the SEALION I & II.
- The CCME will use streamlined Federal Acquisition Regulation (FAR) contracting with existing or planned Indefinite Delivery, Indefinite Quantity (IDIQ), Blanket Order Agreement (BOA), University Affiliated Research Center (UARC), and Federally Funded Research and Development Center (FFRDC) contracts and use Non-FAR Acquisition Authorities and Other Transaction Authority (OTA) agreements and MIPRs, where appropriate.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160483BB / <i>Maritime Systems</i>	S1684 / <i>Surface Craft</i>

- The CCA will continue to develop, test, and integrate C5ISR capability enhancements required to increase the crafts performance characteristics, reliability, and survivability. Exercised ordering period one (1) of the five-year indefinite delivery - IDIQ contract supporting Capital Equipment Replacement Program (CERP).
- The MPE will employ Government engineering expertise and lessons learned to develop a common launch system for NSW combatant craft. Low inventory of production units will be procured through Naval Surface Warfare Center (DAHLGREN).
- The SOCR will conduct pre-award preliminary studies for next generation SOF riverine craft to include hybrid electric propulsion options.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 United States Special Operations Command** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
--	--	--

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Combatant Craft Medium (CCM)	C/Variou	Various : Various	19.478	2.161	Nov 2020	0.989	Nov 2021	3.600	Nov 2022	-		3.600	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Variou	Various : Various	10.568	1.228	Jan 2021	0.933	Jan 2022	3.953	Jan 2023	-		3.953	Continuing	Continuing	-
Combatant Craft Mission Equipment (CCME)	C/Variou	Various : Various	13.948	6.574	Nov 2020	7.788	Nov 2021	7.956	Nov 2022	-		7.956	Continuing	Continuing	-
Combatant Craft Assault (CCA)	C/Variou	Various : Various	3.395	0.714	Nov 2020	1.049	Nov 2021	3.284	Nov 2022	-		3.284	Continuing	Continuing	-
Maritime Precision Engagement (MPE)	C/Variou	NSWC : Dahlgren, VA	15.225	5.931	Dec 2020	6.301	Dec 2021	4.685	Dec 2022	-		4.685	Continuing	Continuing	-
Special Operations Craft Riverine (SOCR)	C/Variou	Various : Various	-	-		-		0.600	Mar 2023	-		0.600	Continuing	Continuing	-
Prior Year Costs	C/Variou	Various : Various	4.215	-		-		-		-		-	0.000	4.215	-
<b>Subtotal</b>			66.829	16.608		17.060		24.078		-		24.078	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Costs	C/Variou	Various : Various	3.646	-		-		-		-		-	0.000	3.646	-
<b>Subtotal</b>			3.646	-		-		-		-		-	0.000	3.646	N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MPE	C/Variou	Various : Various	0.161	0.210	Dec 2020	0.246	Dec 2021	0.258	Dec 2022	-		0.258	Continuing	Continuing	-
Prior Year Costs	C/Variou	Various : Various	3.334	-		-		-		-		-	0.000	3.334	-
<b>Subtotal</b>			3.495	0.210		0.246		0.258		-		0.258	Continuing	Continuing	N/A



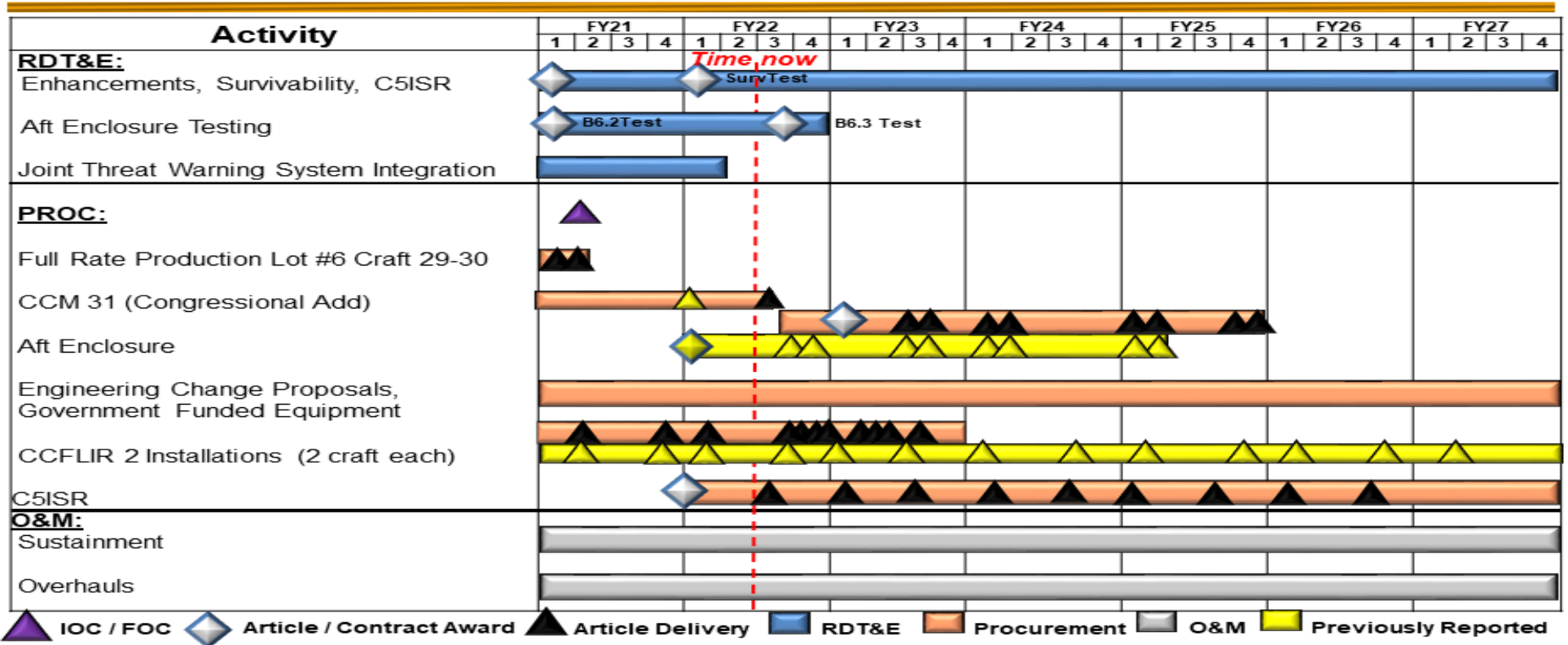


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S1684 / Surface Craft

# Combatant Craft Medium (CCM) MK1 Schedule

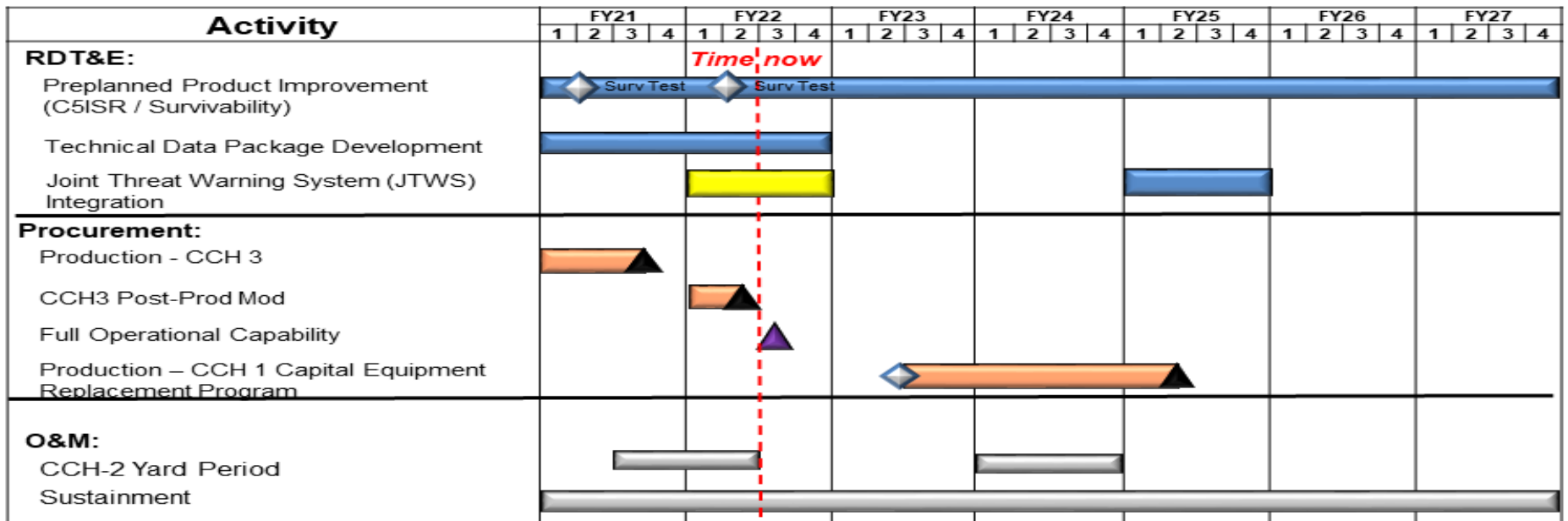


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S1684 / Surface Craft

# Combatant Craft Heavy (CCH) Schedule



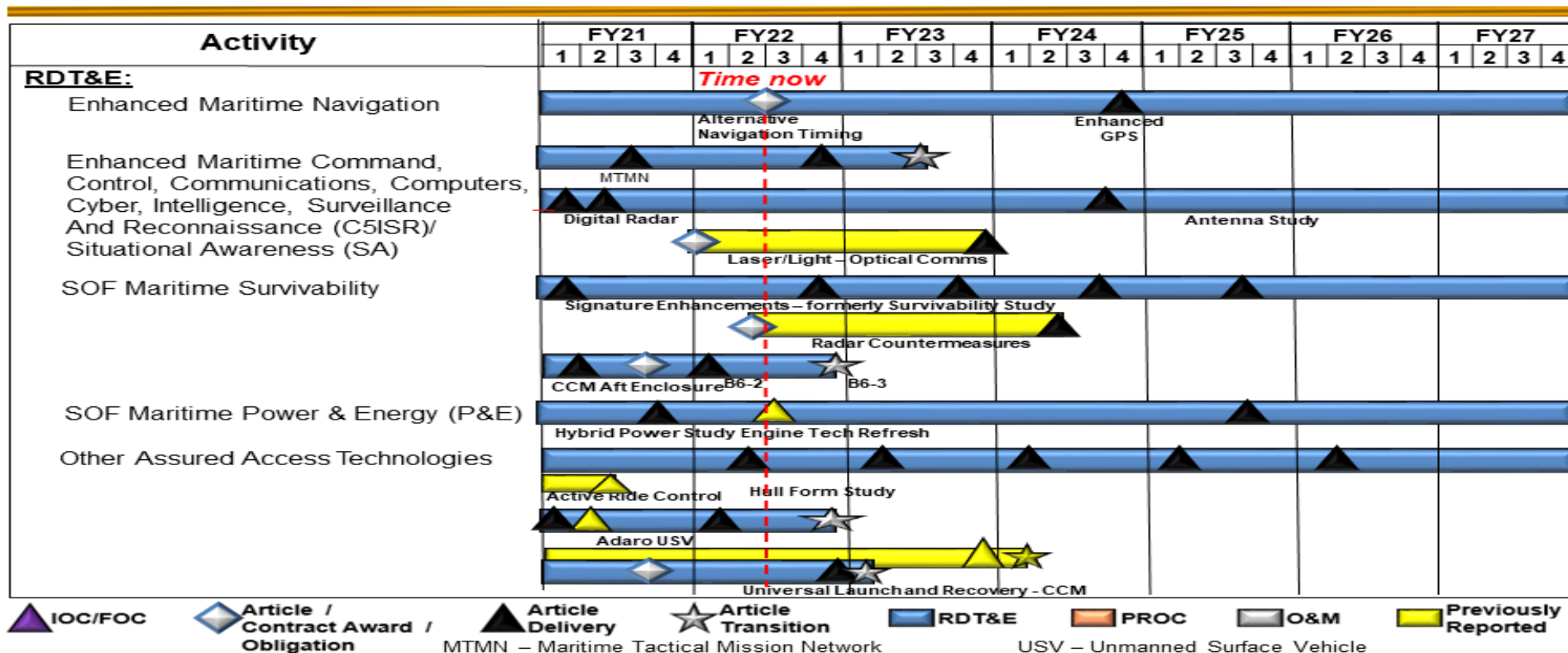
▲ IOC / FOC  
 ◆ Article / Contract Award  
 ▲ Article Delivery  
 ■ RDT&E  
 ■ Procurement  
 ■ O&M  
 ■ Previously Reported

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

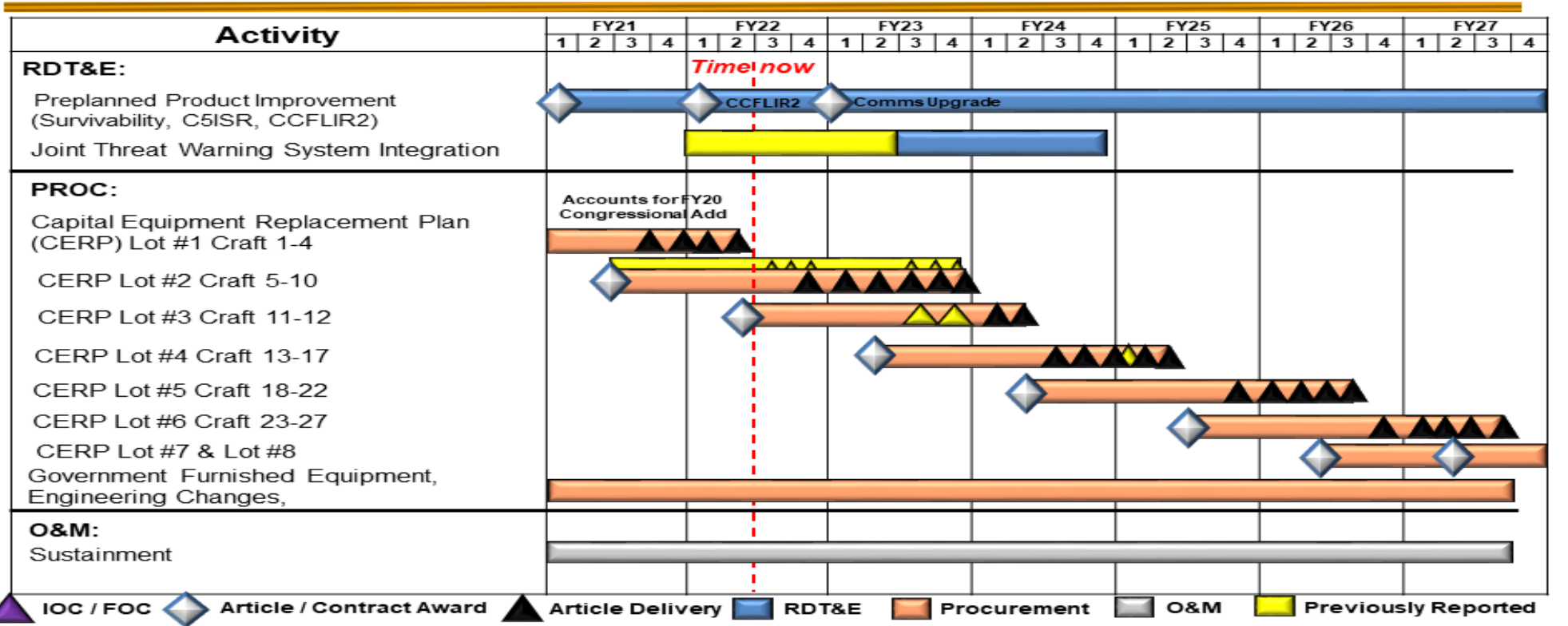
Project (Number/Name)  
S1684 / Surface Craft

# Combatant Craft Mission Equipment Schedule



Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / Maritime Systems	Project (Number/Name) S1684 / Surface Craft
---	--	--

## Combatant Craft Assault Schedule

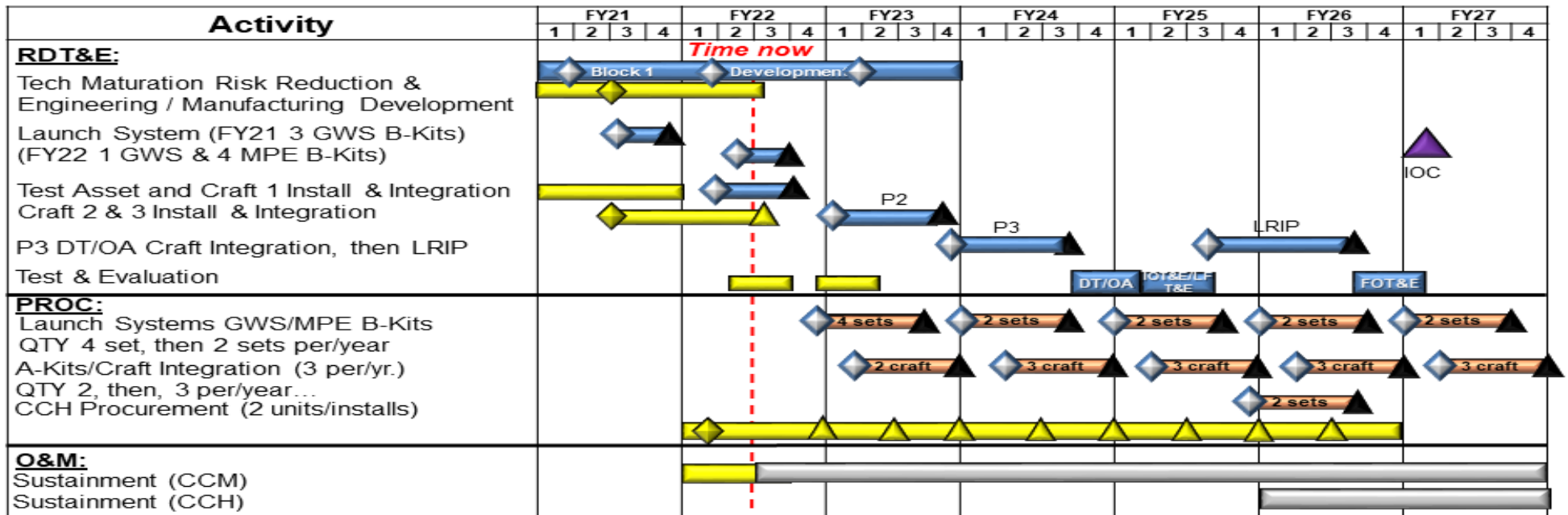


Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S1684 / Surface Craft

# Maritime Precision Engagement (MPE) Schedule



▲ IOC / FOC    ◆ Article / Contract Award    ▲ Article Delivery    ■ RDT&E    ■ Procurement    ■ O&M    ■ Previously Reported

GWS – Gun Weapon System

**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2023 United States Special Operations Command

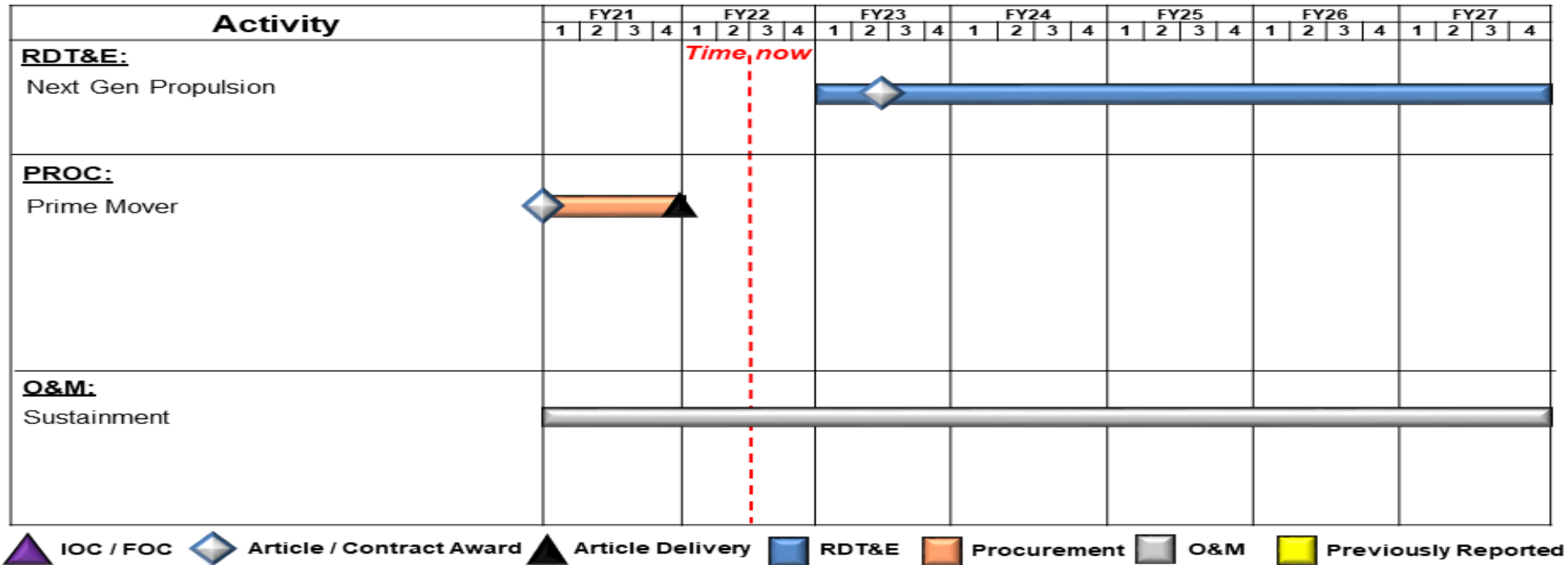
Date: April 2022

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160483BB / Maritime Systems

Project (Number/Name)  
S1684 / Surface Craft

# Special Operations Craft Riverine Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 United States Special Operations Command		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Combatant Craft Medium (CCM)</b>				
Weapons, Survivability, Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) and Combatant Craft Forward Looking Infrared (CCFLIR2)	1	2021	4	2027
Aft Enclosure Testing	1	2021	4	2022
Joint Threat Warning System (JTWS) integration	1	2021	2	2022
<b>Combatant Craft Heavy (CCH)</b>				
Preplanned Product Improvement (Weapons / C5ISR / Survivability)	1	2021	4	2027
Technical Data Package Development	1	2021	4	2022
JTWS integration	1	2025	4	2025
<b>Combatant Craft Mission Equipment (CCME)</b>				
Enhanced Maritime Navigation	1	2021	4	2027
Enhanced Maritime C5ISR/Situational Awareness	1	2021	4	2027
SOF Maritime Survivability	1	2021	4	2027
SOF Maritime Power & Energy (P&E)	1	2021	4	2027
Assured Access Technologies	1	2021	4	2027
<b>Combatant Craft Assault (CCA)</b>				
Preplanned Product Improvement (Survivability, Weapons, C5ISR, CCFLIR2)	1	2021	4	2027
JTWS Integration	3	2023	4	2024
<b>Maritime Precision Engagement (MPE)</b>				
Tech Maturation risk Reduction& Engineering / Manufacturing Development	1	2021	4	2023
Launch Systems	3	2021	4	2021
Craft 1 Install & Integration	2	2022	4	2022



**UNCLASSIFIED**

**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
--	--	--

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Craft 2 & 3 Install & Integration	1	2023	4	2023
P3 Development Test / Operational Assessment Craft Integration, then Low Rate Initial Production	4	2023	3	2026
Test & Evaluation	3	2023	3	2025
<b><i>Special Operations Riverine Craft (SOCR)</i></b>				
Next Gen Propulsion	1	2023	4	2027

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160489BB / <i>Global Video Surveillance Activities</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	68.619	4.602	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.221
S500C: <i>Global Video Surveillance Activities</i>	68.619	4.602	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	73.221

**A. Mission Description and Budget Item Justification**

This program element is part of the Military Intelligence Program. Details are provided under separate cover.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	4.602	0.000	0.000	-	0.000
Current President's Budget	4.602	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 United States Special Operations Command **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160490BB / <i>Operational Enhancements Intelligence</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	131.798	11.603	15.990	7.583	-	7.583	7.760	9.084	9.151	9.335	Continuing	Continuing
S500D: <i>Operational Enhancements Intelligence</i>	131.798	11.603	15.990	7.583	-	7.583	7.760	9.084	9.151	9.335	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project is part of the Military Intelligence Program. This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	11.603	10.990	0.000	-	0.000
Current President's Budget	11.603	15.990	7.583	-	7.583
Total Adjustments	0.000	5.000	7.583	-	7.583
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	7.583	-	7.583

**Change Summary Explanation**

Funding:

FY 2021: None.

FY 2022: Increase of \$5.000 million is due to a Congressional Add for carbon fiber and graphitic foam. Details are provided under separate cover.

FY 2023: Funding increase of \$7.583 million reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2023 Budget Estimates**

April 2022



**Washington Headquarters Services**

*Defense-Wide Justification Book Volume 5 of 5*

***Research, Development, Test & Evaluation, Defense-Wide***

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Washington Headquarters Services • Budget Estimates FY 2023 • RDT&E Program

**Volume 5 Table of Contents**

**Comptroller Exhibit R-1..... Volume 5 - 1297**  
**Program Element Table of Contents (by Budget Activity then Line Item Number)..... Volume 5 - 1309**  
**Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 1311**  
**Exhibit R-2s..... Volume 5 - 1313**

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B P.L.117-43 Enactment*	Division C P.L.117-70 Enactment**	Division B P.L. 117-86 Enactment***	Division A P.L. 117-86 Enactment***
Research, Development, Test & Eval, DW	999	918				
Total Research, Development, Test & Evaluation	999	918				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Research, Development, Test & Eval, DW		918	
Total Research, Development, Test & Evaluation		918	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

UNCLASSIFIED

Department of Defense  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Management Support	999	918				
Total Research, Development, Test & Evaluation	999	918				
Summary Recap of FYDP Programs -----						
Research and Development	999	918				
Total Research, Development, Test & Evaluation	999	918				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Department of Defense  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		918	
Total Research, Development, Test & Evaluation		918	
Summary Recap of FYDP Programs -----			
Research and Development		918	
Total Research, Development, Test & Evaluation		918	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022 Division B P.L.117-43 Enactment*	FY 2022 Division B P.L.117-70 Enactment**	FY 2022 Division A P.L. 117-86 Enactment***	FY 2022 Division N P.L. 117-103 Enactment****
Summary Recap of Budget Activities -----						
Management Support	999	918				
Total Research, Development, Test & Evaluation	999	918				
Summary Recap of FYDP Programs -----						
Research and Development	999	918				
Total Research, Development, Test & Evaluation	999	918				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request
Summary Recap of Budget Activities -----			
Management Support		918	
Total Research, Development, Test & Evaluation		918	
Summary Recap of FYDP Programs -----			
Research and Development		918	
Total Research, Development, Test & Evaluation		918	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

UNCLASSIFIED



UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2021 (Base + OCO)	FY 2022 Less Supplementals Enactment	FY 2022	FY 2022	FY 2022	FY 2022
			Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****
Washington Headquarters Services	999	918				
Total Research, Development, Test & Evaluation	999	918				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Defense-Wide  
FY 2023 President's Budget  
Exhibit R-1 FY 2023 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

04 Apr 2022

Appropriation -----	FY 2022 Total Supplemental Enactment -----	FY 2022 Total Enactment -----	FY 2023 Request -----
Washington Headquarters Services		918	
Total Research, Development, Test & Evaluation		918	

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

UNCLASSIFIED

UNCLASSIFIED

Defense-Wide  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act ---	FY 2021 (Base + OCO) -----	FY 2022 Less Supplementals Enactment -----	FY 2022	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N P.L. 117-103 Enactment****	S e c -
178	0606589D8W	Defense Digital Service (DDS) Development Support	06	999	918					
		Management Support		999	918					
Total Research, Development, Test & Eval, DW				999	918					

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).



UNCLASSIFIED

Washington Headquarters Services  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element No Number	Item	Act ---	FY 2021 (Base + OCO) -----	FY 2022 Less Supplementals Enactment -----	FY 2022	FY 2022	FY 2022	FY 2022
						Division B Division C P.L.117-43 Enactment*	Division B P.L.117-70 Enactment**	Division A P.L. 117-86 Enactment***	Division N S P.L. 117-103 e Enactment**** c
178	0606589D8W	Defense Digital Service (DDS) Development Support	06	999	918				
		Management Support		999	918				
Total Washington Headquarters Services				999	918				

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

\*Includes enacted funding pursuant to the Extending Government Funding and Delivering Emergency Assistance Act (Public Law 117-43).

\*\*Includes enacted funding pursuant to the Further Extending Government Funding Act (Public Law 117-70).

\*\*\*Includes enacted funding pursuant to the Further Additional Extending Government Funding Act (Public Law 117-86).

\*\*\*\*Includes enacted funding pursuant to the Ukraine Supplemental Appropriations Act (Public Law 117-103).

UNCLASSIFIED

Washington Headquarters Services  
 FY 2023 President's Budget  
 Exhibit R-1 FY 2023 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

04 Apr 2022

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element	Item	Act	FY 2022 Total Supplemental Enactment	FY 2022 Total Enactment	FY 2023 Request	S e c -
--	-----	----	---	-----	-----	-----	-
178	0606589D8W	Defense Digital Service (DDS) Development Support	06		918		U
	Management Support				918		
Total Washington Headquarters Services					918		

R-123PBP: FY 2023 President's Budget (Total Base Published Version), as of April 4, 2022 at 09:47:34

**UNCLASSIFIED**

Washington Headquarters Services • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (by Budget Activity then Line Item Number)**

***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

---

<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
178	06	0606589D8W	Defense Digital Service (DDS) Development Support.....	Volume 5 - 1313

**UNCLASSIFIED**

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED



**UNCLASSIFIED**

Washington Headquarters Services • Budget Estimates FY 2023 • RDT&E Program

**Program Element Table of Contents (Alphabetically by Program Element Title)**

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line #</b>	<b>BA</b>	<b>Page</b>
Defense Digital Service (DDS) Development Support	0606589D8W	178	06.....	Volume 5 - 1313

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Washington Headquarters Services **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0606589D8W I <i>Defense Digital Service (DDS) Development Support</i>
--	--

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	11.920	0.999	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
281: <i>Defense Digital Service (DDS)</i>	11.920	0.999	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

New start (Y/N): No

Effective February 1, 2022 the Department of Defense established the position of the Chief Digital and Artificial Intelligence Officer and the Office of the Chief Digital and Artificial Intelligence Officer (OCDAO), tasked with serving as the Department’s senior official, and a Principal Staff Assistant, responsible for strengthening and integrating data, artificial intelligence, and digital solutions. The transfer out supports the consolidation of the Department’s existing functional efforts in order to align manpower and funding resources under the OCDAO.

**A. Mission Description and Budget Item Justification**

Launched in November 2015, and formally chartered under DoD Directive 5105.87 in January 2017, Defense Digital Service (DDS) is charged with bringing the best available technology in an efficient way into the DoD. The DDS serves as an organization composed of commercially experienced software developers, software designers, product managers, and problem solvers within the DoD, who utilize best-in-class private sector practices, talent, and technology to transform the way digital services are delivered within the Department.

The DDS uses design and technology to improve government services, strengthen national defense, and care for military members and their families. For FY 2022, DDS will continue previous innovative efforts, leverage public and private sector initiatives, and pursue innovative solutions to transform technology and improve and expand modern digital services and capabilities across the Department.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Washington Headquarters Services	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0606589D8W I <i>Defense Digital Service (DDS) Development Support</i>
--	--

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.999	0.918	0.000	-	0.000
Current President's Budget	0.999	0.918	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Year	-	-	0.000	-	0.000

**Change Summary Explanation**

Previous President's Budget funding for FY 2023 reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Starting in FY 2023, all funding is transferred to establishment of the Office of the Chief Digital and Artificial Intelligence Officer.

Effective February 1, 2022 the Department of Defense established the position of the Chief Digital and Artificial Intelligence Officer and the Office of the Chief Digital and Artificial Intelligence Officer (OCDAO), tasked with serving as the Department's senior official, and a Principal Staff Assistant, responsible for strengthening and integrating data, artificial intelligence, and digital solutions. The realignment in FY 2023 from DDS to CDAO supports the consolidation of the Department's existing functional efforts in order to align manpower and funding under the OCDAO.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Washington Headquarters Services										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0606589D8W / <i>Defense Digital Service (DDS) Development Support</i>				<b>Project (Number/Name)</b> 281 / <i>Defense Digital Service (DDS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
281: <i>Defense Digital Service (DDS)</i>	11.920	0.999	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

DDS builds software prototypes and implements proof-of-concept tests for key Department projects that support missions and long term goals of the Department to modernize its offensive and defensive technological capabilities. This funding will allow DDS to determine which private sector software development best practices and/or technology work best for the Department. DDS research and development is one of the Secretary of Defense's top priorities with the intent of advancing and modernizing technology, especially software systems, critical to the successful implementation of a variety of Department and war fighter missions. DDS requirements are driven by challenging technical problems identified by the Secretary of Defense where technology is failing the Department's mission and could impede the lethality and effectiveness of the war fighter. These technical problems vary in scope and complexity, but at a minimum, when resolved, have a positive impact on the war fighter's mission and capabilities. DDS involvement may be in the development of new code, product management, advising on code development processes and releases, and hacking or re-writing existing policies or processes that are antiquated or otherwise unnecessary. DDS engages on highly troubled projects to quickly implement fixes that ultimately reduce schedule slip, increase security, lower costs, improve user experiences, and accelerate performance.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Defense Digital Service (DDS)	0.999	0.918	0.000
<p><b>Description:</b> DDS has provided services and tools that have improved and saved the lives of Service members and their families, and provided technological superiority in areas critical to national defense. DDS successfully completed the System for Automated Background Evaluation and Review prototype and continues counter-unmanned aerial systems (cUAS) work, as well as, the Hack the Pentagon program with multiple bug bounties including Hack the Air Force 5, Hack the Army 3, Hack the PFPA 2, Hack the Kessel Run, and a partnership with DARPA centered around hardware security. DDS continues to support cyber adversary detection and negation via multiple projects, including a domain name system security project. DDS has transitioned the MilMove/DP3 project to TRANSCOM and completed the Army Cyber Soldier training curriculum updates.</p> <p><b>FY 2022 Plans:</b> The DDS plans to develop mature cUAS solutions for the warfighter. DDS will further expand detection capabilities, ruggedization, and integration capabilities. DDS will also enhance mitigation capabilities via drone-on-drone defeat capabilities ("Drogon") and for a middleware platform to enhance cUAS system interoperability and facilitate development of a data lake to improve drone analysis, detection, and defeat capabilities.</p> <p><b>FY 2023 Plans:</b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Washington Headquarters Services		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0606589D8W / <i>Defense Digital Service (DDS) Development Support</i>	<b>Project (Number/Name)</b> 281 / <i>Defense Digital Service (DDS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
The DDS plans on continuing its mission under the CDAO, tasked with serving as the Department's senior official, and a PSA, responsible for strengthening and integrating data, artificial intelligence, and digital solutions. The transfer in supports the consolidation of the Department's existing functional efforts in order to align manpower and funding resources under the OCDAO. This extends to cyber warfare testing and development through digital service tools and capabilities across the Defense domain.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease reflects the complete realignment of DDS to the OSD CDAO beginning in FY 2023.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.999	0.918	0.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	
• O&M: BA 4, PE 0901589D8W	4.520	3.174	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A