Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

Defense-Wide

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Research, Development, Test & Evaluation, Defense-Wide

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

05 Feb 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 5, 2016 at 10:27:18

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Basic Research	592,634	637,989		637,989	629,895		629,895
Applied Research	1,667,621	1,697,301		1,697,301	1,786,523		1,786,523
Advanced Technology Development	2,911,445	3,157,257	40,000	3,197,257	3,190,666		3,190,666
Advanced Component Development And Prototypes	6,234,147	7,199,010		7,199,010	6,919,519		6,919,519
System Development And Demonstration	611,986	521,497		521,497	628,218		628,218
Management Support	1,271,083	1,056,435		1,056,435	897,599		897,599
Operational System Development	4,158,925	4,412,170	137,087	4,549,257	4,256,406	162,419	4,418,825
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245
Summary Recap of FYDP Programs							
General Purpose Forces	84,502	73,109		73,109	70,075		70,075
Intelligence and Communications	455,292	514,433		514,433	555,112		555,112
Research and Development	13,051,747	14,027,045	40,000	14,067,045	13,793,461		13,793,461
Central Supply and Maintenance	21,927	24,375		24,375	3,908		3,908
Training Medical and Other	38,266	42,679		42,679	34,384		34,384
Administration and Associated Activities	40,316	39,799		39,799	32,813		32,813
Special Operations Forces	473,921	483,783		483,783	491,759		491,759
Classified Programs	3,281,870	3,476,436	137,087	3,613,523	3,327,314	162,419	3,489,733
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245

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Advanced Component Development And Prototypes	6,234,147	7,199,010		7,199,010	6,919,519		6,919,519
System Development And Demonstration	611,986	521,497		521,497	628,218		628,218
Management Support	1,271,083	1,056,435		1,056,435	897,599		897,599
Operational System Development	4,158,925	4,412,170	137,087	4,549,257	4,256,406	162,419	4,418,825
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245
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General Purpose Forces	84,502	73,109		73,109	70,075		70,075
Intelligence and Communications	455,292	514,433		514,433	555,112		555,112
Research and Development	13,051,747	14,027,045	40,000	14,067,045	13,793,461		13,793,461
Central Supply and Maintenance	21,927	24,375		24,375	3,908		3,908
Training Medical and Other	38,266	42,679		42,679	34,384		34,384
Administration and Associated Activities	40,316	39,799		39,799	32,813		32,813
Special Operations Forces	473,921	483,783		483,783	491,759		491,759
Classified Programs	3,281,870	3,476,436	137,087	3,613,523	3,327,314	162,419	3,489,733
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826	162,419	18,471,245

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Chemical and Biological Defense Program	1,064,464	978,766		978,766	884,989		884,989
Defense Advanced Research Projects Agency	2,915,932	2,868,281		2,868,281	2,973,036		2,973,036
Defense Contract Management Agency	12,530	12,042		12,042	11,505		11,505
Defense Human Resources Activity	19,430	18,695		18,695	23,898		23,898
Defense Intelligence Agency							
Defense Information Systems Agency	215,982	209,712		209,712	251,852		251,852
Defense Logistics Agency	221,245	214,251		214,251	188,241		188,241
Defense Security Cooperative Agency	12,386	10,510		10,510	9,572		9,572
Defense Security Service	12,658	8,462		8,462	9,275		9,275
Defense Technical Information Center	50,789	56,775		56,775	48,234		48,234
Defense Threat Reduction Agency	487,802	488,817		488,817	461,305		461,305
Missile Defense Agency	5,647,845	6,215,381		6,215,381	5,892,757		5,892,757
National Geospatial Intelligence Agency							
National Security Agency							
Office of Secretary of Defense	2,685,149	3,279,688	40,000	3,319,688	3,430,277		3,430,277
U.S., Special Operations Command	495,001	554,145		554,145	497,174		497,174
The Joint Staff	150,372	76,865		76,865	68,586		68,586
Washington Headquarters Services	612	975		975	827		827
Total Research, Development, Test & Evaluation	17,447,841	18,681,659	177,087	18,858,746	18,308,826		18,471,245

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
1	0601000BR	DTRA Basic Research Initiative	01	36,607	38,436		38,436	35,436		35,436	U
2	0601101E	Defense Research Sciences	01	322,030	333,119		333,119	362,297		362,297	U
3	0601110D8Z	Basic Research Initiatives	01	41,054	71,940		71,940	36,654		36,654	U
4	0601117E	Basic Operational Medical Research Science	01	59,341	56,544		56,544	57,791		57,791	U
5	0601120D8Z	National Defense Education Program	01	54,619	54,355		54,355	69,345		69,345	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	33,263	35,834		35,834	23,572		23,572	U
7	0601384BP	Chemical and Biological Defense Program	01	45,720	47,761		47,761	44,800		44,800	U
		Basic Research		592,634	637,989		637,989	629,895		629,895	
8	0602000D8Z	Joint Munitions Technology	02	19,491	19,314		19,314	17,745		17,745	U
9	0602115E	Biomedical Technology	02	164,589	114,262		114,262	115,213		115,213	U
10	0602230D8Z	Defense Technology Innovation	02					30,000		30,000	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	49,409	50,925		50,925	48,269		48,269	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	40,168	48,131		48,131	42,206		42,206	U
13	0602303E	Information & Communications Technology	02	315,923	341,358		341,358	353,635		353,635	U
14	0602383E	Biological Warfare Defense	02	42,447	24,265		24,265	21,250		21,250	U
15	0602384BP	Chemical and Biological Defense Program	02	212,538	202,611		202,611	188,715		188,715	U
16	0602668D8Z	Cyber Security Research	02	17,748	13,701		13,701	12,183		12,183	U
17	0602702E	Tactical Technology	02	299,787	302,582		302,582	313,843		313,843	U

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18	0602715E	Materials and Biological Technology	02	144,409	206,115		206,115	220,456		220,456	U
19	0602716E	Electronics Technology	02	169,690	174,798		174,798	221,911		221,911	U
20	0602718BR	Weapons of Mass Destruction Defeat Technologies	02	147,019	152,915		152,915	154,857		154,857	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,844	8,807		8,807	8,420		8,420	U
22	1160401BB	SOF Technology Development	02	35,559	37,517		37,517	37,820		37,820	U
		Applied Research		1,667,621	1,697,301		1,697,301	1,786,523		1,786,523	
23	0603000D8Z	Joint Munitions Advanced Technology	03	24,132	25,864		25,864	23,902		23,902	U
24	0603121D8Z	SO/LIC Advanced Development	03	8,587							U
25	0603122D8Z	Combating Terrorism Technology Support	03	99,121	108,030	40,000	148,030	73,002		73,002	U
26	0603133D8Z	Foreign Comparative Testing	03	21,128	24,782		24,782	19,343		19,343	U
27	0603160BR	Counterproliferation Initiatives - Proliferation Prevention and Defeat	03	287,903	290,310		290,310	266,444		266,444	U
28	0603176C	Advanced Concepts and Performance Assessment	03	9,999	12,139		12,139	17,880		17,880	U
29	0603177C	Discrimination Sensor Technology	03	35,223	28,200		28,200				U
30	0603178C	Weapons Technology	03	61,396	51,153		51,153	71,843		71,843	U
31	0603179C	Advanced C4ISR	03	13,061	9,876		9,876	3,626		3,626	U
32	0603180C	Advanced Research	03	18,476	17,364		17,364	23,433		23,433	U
33	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,889	18,765		18,765	17,256		17,256	U
34	0603264S	Agile Transportation for the 21st Century (AT21) - Theater Capability	03	1,460	1,706		1,706				U

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35	0603274C	Special Program - MDA Technology	03	43,439	13,908		13,908	83,745		83,745	U
36	0603286E	Advanced Aerospace Systems	03	123,292	173,631		173,631	182,327		182,327	U
37	0603287E	Space Programs and Technology	03	172,504	126,692		126,692	175,240		175,240	U
38	0603288D8Z	Analytic Assessments	03	13,299	14,645		14,645	12,048		12,048	U
39	0603289D8Z	Advanced Innovative Analysis and Concepts	03	48,760	50,030		50,030	57,020		57,020	U
40	0603294C	Common Kill Vehicle Technology	03	24,836	61,753		61,753				U
41	0603375D8Z	Technology Innovation	03	10,000	25,000		25,000	39,923		39,923	U
42	0603384BP	Chemical and Biological Defense Program - Advanced Development	03	147,141	140,094		140,094	127,941		127,941	U
43	0603527D8Z	RETRACT LARCH	03		108,430		108,430	181,977		181,977	U
44	0603618D8Z	Joint Electronic Advanced Technology	03	10,757	30,879		30,879	22,030		22,030	U
45	0603648D8Z	Joint Capability Technology Demonstrations	03	116,234	132,258		132,258	148,184		148,184	U
46	0603662D8Z	Networked Communications Capabilities	03		5,967		5,967	9,331		9,331	U
47	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	88,135	156,743		156,743	158,398		158,398	U
48	0603680S	Manufacturing Technology Program	03					31,259		31,259	U
49	0603699D8Z	Emerging Capabilities Technology Development	03	68,640	40,949		40,949	49,895		49,895	U
50	0603712S	Generic Logistics R&D Technology Demonstrations	03	22,224	15,537		15,537	11,011		11,011	U
51	0603713S	Deployment and Distribution Enterprise Technology	03	29,533	29,888		29,888				U

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52	0603716D8Z	Strategic Environmental Research Program	03	54,357	55,705		55,705	65,078		65,078	U
53	0603720S	Microelectronics Technology Development and Support	03	81,199	89,038		89,038	97,826		97,826	U
54	0603727D8Z	Joint Warfighting Program	03	10,108	4,982		4,982	7,848		7,848	U
55	0603739E	Advanced Electronics Technologies	03	81,119	76,021		76,021	49,807		49,807	U
56	0603760E	Command, Control and Communications Systems	03	229,945	201,335		201,335	155,081		155,081	U
57	0603766E	Network-Centric Warfare Technology	03	350,323	425,861		425,861	428,894		428,894	U
58	0603767E	Sensor Technology	03	283,905	240,127		240,127	241,288		241,288	U
59	0603769SE	Distributed Learning Advanced Technology Development	03	10,692	10,771		10,771				U
60	0603781D8Z	Software Engineering Institute	03	15,198	15,173		15,173	14,264		14,264	U
61	0603826D8Z	Quick Reaction Special Projects	03	55,821	70,320		70,320	74,943		74,943	U
62	0603832D8Z	DoD Modeling and Simulation Management Office	03	2,908							U
63	0603833D8Z	Engineering Science & Technology	03		18,341		18,341	17,659		17,659	U
64	0603941D8Z	Test & Evaluation Science & Technology	03	79,073	91,425		91,425	87,135		87,135	U
65	0604055D8Z	Operational Energy Capability Improvement	03	45,060	41,420		41,420	37,329		37,329	U
66	0303310D8Z	CWMD Systems	03	44,690	42,404		42,404	44,836		44,836	U
67	1160402BB	SOF Advanced Technology Development	03	49,878	59,741		59,741	61,620		61,620	U
		Advanced Technology Development		2,911,445	3,157,257	40,000	3,197,257	3,190,666		3,190,666	

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68	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	40,088	31,648		31,648	28,498		28,498	U
69	0603600D8Z	WALKOFF	04	98,547	90,387		90,387	89,643		89,643	U
70	0603714D8Z	Advanced Sensors Application Program	04	19,482	15,869		15,869				U
71	0603821D8Z	Acquisition Enterprise Data & Information Services	04					2,136		2,136	U
72	0603851D8Z	Environmental Security Technical Certification Program	04	62,432	52,654		52,654	52,491		52,491	U
73	0603881C	Ballistic Missile Defense Terminal Defense Segment	04	161,298	212,230		212,230	206,834		206,834	U
74	0603882C	Ballistic Missile Defense Midcourse Defense Segment	04	863,965	1,269,913		1,269,913	862,080		862,080	U
75	0603884BP	Chemical and Biological Defense Program - Dem/Val	04	180,962	170,354		170,354	138,187		138,187	U
76	0603884C	Ballistic Missile Defense Sensors	04	260,347	228,392		228,392	230,077		230,077	U
77	0603890C	BMD Enabling Programs	04	395,927	404,780		404,780	401,594		401,594	U
78	0603891C	Special Programs - MDA	04	301,201	400,387		400,387	321,607		321,607	U
79	0603892C	AEGIS BMD	04	761,646	830,647		830,647	959,066		959,066	U
80	0603893C	Space Tracking & Surveillance System	04	29,530	28,605		28,605	32,129		32,129	U
81	0603895C	Ballistic Missile Defense System Space Programs	04	7,560	21,507		21,507	20,690		20,690	U
82	0603896C	Ballistic Missile Defense Command and Control, Battle Management and Communicati	04	420,516	429,853		429,853	439,617		439,617	U
83	0603898C	Ballistic Missile Defense Joint Warfighter Support	04	44,220	47,898		47,898	47,776		47,776	U

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84	0603904C	Missile Defense Integration & Operations Center (MDIOC)	04	53,972	47,939		47,939	54,750		54,750	U
85	0603906C	Regarding Trench	04	15,912	9,583		9,583	8,785		8,785	U
86	0603907C	Sea Based X-Band Radar (SBX)	04	64,610	71,266		71,266	68,787		68,787	U
87	0603913C	Israeli Cooperative Programs	04	268,842	267,595		267,595	103,835		103,835	U
88	0603914C	Ballistic Missile Defense Test	04	354,414	281,740		281,740	293,441		293,441	U
89	0603915C	Ballistic Missile Defense Targets	04	447,424	527,563		527,563	563,576		563,576	U
90	0603920D8Z	Humanitarian Demining	04	9,930	10,110		10,110	10,007		10,007	U
91	0603923D8Z	Coalition Warfare	04	9,974	10,330		10,330	10,126		10,126	U
92	0604016D8Z	Department of Defense Corrosion Program	04	12,519	6,518		6,518	3,893		3,893	U
93	0604115C	Technology Maturation Initiatives	04		27,225		27,225	90,266		90,266	U
94	0604132D8Z	Missile Defeat Project	04					45,000		45,000	U
95	0604250D8Z	Advanced Innovative Technologies	04	170,872	468,881		468,881	844,870		844,870	U
96	0604342D8Z	Defense Technology Offset	04		75,000		75,000				U
97	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	7,574	7,786		7,786	3,320		3,320	U
98	0604445J	Wide Area Surveillance	04	59,823							U
99	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04					4,000		4,000	U
100	0604775D8Z	Defense Rapid Innovation Program	04	224,910	250,000		250,000				U
101	0604787J	Joint Systems Integration	04	3,150							U

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102	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		21,700		21,700	23,642		23,642	U
103	0604828J	Joint FIRES Integration and Interoperability Team	04	2,447							U
104	0604873C	Long Range Discrimination Radar (LRDR)	04	49,606	137,564		137,564	162,012		162,012	U
105	0604874C	Improved Homeland Defense Interceptors	04	97,739	278,944		278,944	274,148		274,148	U
106	0604876C	Ballistic Missile Defense Terminal Defense Segment Test	04	109,394	26,225		26,225	63,444		63,444	U
107	0604878C	Aegis BMD Test	04	88,041	78,468		78,468	95,012		95,012	U
108	0604879C	Ballistic Missile Defense Sensor Test	04	60,048	83,597		83,597	83,250		83,250	U
109	0604880C	Land-Based SM-3 (LBSM3)	04	121,413	34,970		34,970	43,293		43,293	U
110	0604881C	AEGIS SM-3 Block IIA Co-Development	04	259,278	172,645		172,645	106,038		106,038	U
111	0604887C	Ballistic Missile Defense Midcourse Segment Test	04	78,463	64,618		64,618	56,481		56,481	U
112	0604894C	Multi-Object Kill Vehicle	04					71,513		71,513	U
113	0605170D8Z	Support to Networks and Information Integration	04	12,477							U
114	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	2,650	2,656		2,656	2,636		2,636	U
115	0305103C	Cyber Security Initiative	04	944	963		963	969		969	U
		Advanced Component Development And Prototypes		6,234,147	7,199,010		7,199,010	6,919,519		6,919,519	
116	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	7,775	8,783		8,783	10,324		10,324	U

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117	0604165D8Z	Prompt Global Strike Capability Development	05	95,588	88,660		88,660	181,303		181,303	U
118	0604384BP	Chemical and Biological Defense Program - EMD	05	330,326	282,147		282,147	266,231		266,231	U
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	24,930	18,388		18,388				U
120	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	19,556	14,257		14,257	16,288		16,288	U
121	0605000BR	Weapons of Mass Destruction Defeat Capabilities	05	6,667	7,156		7,156	4,568		4,568	U
122	0605013BL	Information Technology Development	05	12,530	12,042		12,042	11,505		11,505	U
123	0605021SE	Homeland Personnel Security Initiative	05	286				1,658		1,658	U
124	0605022D8Z	Defense Exportability Program	05	3,150	3,267		3,267	2,920		2,920	U
125	0605027D8Z	OUSD(C) IT Development Initiatives	05	6,300	4,962		4,962				U
126	0605070S	DOD Enterprise Systems Development and Demonstration	05	13,893	11,912		11,912	12,631		12,631	U
127	0605075D8Z	DCMO Policy and Integration	05	18,682	2,219		2,219				U
128	0605080S	Defense Agency Intiatives (DAI) - Financial System	05	35,497	31,660		31,660	26,657		26,657	U
129	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05	9,801	10,135		10,135	4,949		4,949	U
130	0605140D8Z	Trusted Foundry	05					69,000		69,000	U
131	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	9,227	7,209		7,209	9,881		9,881	U
132	0303141K	Global Combat Support System	05	14,240	14,294		14,294	7,600		7,600	U

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133	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	3,538	4,406		4,406	2,703		2,703	U
		System Development And Demonstration		611,986	521,497		521,497	628,218		628,218	
134	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	5,605	5,571		5,571	4,678		4,678	U
135	0604875D8Z	Joint Systems Architecture Development	06	2,986	3,076		3,076	4,499		4,499	U
136	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	234,011	213,668		213,668	219,199		219,199	U
137	0604942D8Z	Assessments and Evaluations	06	15,220	28,618		28,618	28,706		28,706	U
138	0605001E	Mission Support	06					69,244		69,244	U
139	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	26,736	40,146		40,146	87,080		87,080	U
140	0605104D8Z	Technical Studies, Support and Analysis	06	23,735	24,887		24,887	23,069		23,069	U
141	0605117D8Z	Foreign Materiel Acquisition and Exploitation	06	46,781							U
142	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	39,795	33,983		33,983	32,759		32,759	U
143	0605128D8Z	Classified Program USD(P)	06	99,960	115,000		115,000				U
144	0605142D8Z	Systems Engineering	06	43,248	39,581		39,581	32,429		32,429	U
145	0605151D8Z	Studies and Analysis Support - OSD	06	2,645	2,710		2,710	3,797		3,797	U
146	0605161D8Z	Nuclear Matters-Physical Security	06	4,213	5,277		5,277	5,302		5,302	U
147	0605170D8Z	Support to Networks and Information Integration	06	27,012	5,279		5,279	7,246		7,246	U

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148	0605200D8Z	General Support to USD (Intelligence)	06	2,846	1,686		1,686	1,874		1,874	U
149	0605384BP	Chemical and Biological Defense Program	06	104,597	102,238		102,238	85,754		85,754	U
150	0605502BP	Small Business Innovative Research - Chemical Biological Def	06	15,078							U
151	0605502BR	Small Business Innovation Research	06	9,606							U
152	0605502C	Small Business Innovation Research - MDA	06	89,507							U
153	0605502D8Z	Small Business Innovative Research	06	52,627							U
154	0605502E	Small Business Innovative Research	06	85,266							U
155	0605502KA	Small Business Innovative Research	06	400							U
156	0605502S	Small Business Innovative Research	06	5,711							U
157	0605502T	Small Business Innovative Research	06	409							U
158	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	1,631	2,166		2,166	2,187		2,187	U
159	0605798D8Z	Defense Technology Analysis	06	21,357	115,933		115,933	22,650		22,650	U
160	0605801KA	Defense Technical Information Center (DTIC)	06	50,389	56,775		56,775	43,834		43,834	U
161	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	8,452	7,924		7,924	22,240		22,240	U
162	0605804D8Z	Development Test and Evaluation	06	18,833	21,337		21,337	19,541		19,541	U
163	0605898E	Management HQ - R&D	06	71,362	71,571		71,571	4,759		4,759	U
164	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06					4,400		4,400	U

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165	0606100D8Z	Budget and Program Assessments	06	4,030	4,116		4,116	4,014		4,014	U
166	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	1,900	1,943		1,943	2,072		2,072	U
167	0204571J	Joint Staff Analytical Support	06	16,404	5,983		5,983	7,464		7,464	U
170	0303166J	Support to Information Operations (IO) Capabilities	06	12,179	10,404		10,404	857		857	U
171	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06		971		971	916		916	U
172	0305172K	Combined Advanced Applications	06					15,336		15,336	U
173	0305193D8Z	Cyber Intelligence	06	6,735	6,567		6,567	18,523		18,523	U
175	0804767D8Z	COCOM Exercise Engagement and Training Transformation (CE2T2) - MHA	06	38,266	42,679		42,679	34,384		34,384	U
176	0901598C	Management HQ - MDA	06	35,598	35,871		35,871	31,160		31,160	U
177	0901598D8W	Management Headquarters WHS	06	612							U
178	0903230D8W	WHS - Mission Operations Support - IT	06		975		975				U
179	0903235D8W	Joint Service Provider (JSP)	06					827		827	U
180	0909999D8Z	Financing for Cancelled Account Adjustments	06	995							U
9999	9999999999	Classified Programs		44,346	49,500		49,500	56,799		56,799	U
		Management Support		1,271,083	1,056,435		1,056,435	897,599		897,599	
181	0604130V	Enterprise Security System (ESS)	07	3,988	5,929		5,929	4,241		4,241	U
182	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	1,694	1,750		1,750	1,424		1,424	U

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183	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	275	294		294	287		287	U
184	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	14,282	22,532		22,532	16,195		16,195	U
185	0607310D8Z	CWMD Systems: Operational Systems Development	07	2,849	1,898		1,898	4,194		4,194	U
186	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	10,008	8,466		8,466	7,861		7,861	U
187	0607384BP	Chemical and Biological Defense (Operational Systems Development)	07	28,102	33,561		33,561	33,361		33,361	U
188	0607828J	Joint Integration and Interoperability	07	10,167							U
189	0208043J	Planning and Decision Aid System (PDAS)	07	3,296	1,842		1,842	3,038		3,038	U
190	0208045K	C4I Interoperability	07	62,902	63,341		63,341	57,501		57,501	U
192	0301144K	Joint/Allied Coalition Information Sharing	07	3,931	1,845		1,845	5,935		5,935	U
196	0302016K	National Military Command System-Wide Support	07	924	963		963	575		575	U
197	0302019K	Defense Info Infrastructure Engineering and Integration	07	12,680	10,120		10,120	18,041		18,041	U
198	0303126K	Long-Haul Communications - DCS	07	26,209	36,830		36,830	13,994		13,994	U
199	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	12,671	13,735		13,735	12,206		12,206	U
200	0303135G	Public Key Infrastructure (PKI)	07	222	6,101		6,101	34,314		34,314	U
201	0303136G	Key Management Infrastructure (KMI)	07	32,698	43,867		43,867	36,602		36,602	U

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202	0303140D8Z	Information Systems Security Program	07	10,933	8,940		8,940	8,876		8,876	U
203	0303140G	Information Systems Security Program	07	138,854	161,890		161,890	159,068		159,068	U
204	0303150K	Global Command and Control System	07	30,536	21,503		21,503	24,438		24,438	U
205	0303153K	Defense Spectrum Organization	07	13,614	20,298		20,298	13,197		13,197	U
206	0303170K	Net-Centric Enterprise Services (NCES)	07	3,774	444		444				U
207	0303228K	Joint Information Environment (JIE)	07					2,789		2,789	U
208	0303260D8Z	Defense Military Deception Program Office (DMDPO)	07	925							U
209	0303430K	Federal Investigative Services Information Technology	07					75,000		75,000	U
210	0303610K	Teleport Program	07	3,158	1,736		1,736	657		657	U
211	0304210BB	Special Applications for Contingencies	07	14,818	65,060		65,060				U
215	0305103K	Cyber Security Initiative	07	3,085	2,976		2,976	1,553		1,553	U
216	0305125D8Z	Critical Infrastructure Protection (CIP)	07	8,702							U
220	0305186D8Z	Policy R&D Programs	07	7,005	4,175		4,175	6,204		6,204	U
221	0305199D8Z	Net Centricity	07	23,229	18,095		18,095	17,971		17,971	U
223	0305208BB	Distributed Common Ground/Surface Systems	07	6,262	5,302		5,302	5,415		5,415	U
226	0305208K	Distributed Common Ground/Surface Systems	07	3,328	3,239		3,239	3,030		3,030	U
229	0305327V	Insider Threat	07	8,670	2,533		2,533	5,034		5,034	U

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230	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,088	2,116		2,116	2,037		2,037	U
234	0305889G	Counterdrug Intelligence Support	07	2,000							U
236	0307577D8Z	Intelligence Mission Data (IMD)	07					13,800		13,800	U
237	0708011S	Industrial Preparedness	07	20,405	22,605		22,605				U
238	0708012S	Pacific Disaster Centers	07	1,522	1,770		1,770	1,754		1,754	U
239	0708047S	Defense Property Accountability System	07					2,154		2,154	U
240	0902298J	Management HQ - OJCS	07	3,111	2,953		2,953	826		826	U
241	1105219BB	MQ-9 UAV	07	14,418	22,151		22,151	17,804		17,804	U
242	1105232BB	RQ-11 UAV	07	259	758		758				U
243	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	14,438							U
244	1160403BB	Aviation Systems	07	149,337	179,134		179,134	159,143		159,143	U
245	1160405BB	Intelligence Systems Development	07	9,490	6,866		6,866	7,958		7,958	U
246	1160408BB	Operational Enhancements	07	78,627	63,008		63,008	64,895		64,895	U
247	1160431BB	Warrior Systems	07	19,906	33,842		33,842	44,885		44,885	U
248	1160432BB	Special Programs	07	19,887	3,401		3,401	1,949		1,949	U
249	1160434BB	Unmanned ISR	07					22,117		22,117	U
250	1160480BB	SOF Tactical Vehicles	07	3,553	3,212		3,212	3,316		3,316	U
251	1160483BB	Maritime Systems	07	58,656	59,597		59,597	54,577		54,577	U
252	1160489BB	Global Video Surveillance Activities	07	3,788	3,933		3,933	3,841		3,841	U

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

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253	1160490BB	Operational Enhancements Intelligence	07	16,125	10,623		10,623	11,834		11,834	U
9999	9999999999	Classified Programs		3,237,524	3,426,936	137,087	3,564,023	3,270,515	162,419	3,432,934	U
		Operational System Development		4,158,925	4,412,170		4,549,257	4,256,406		4,418,825	
Total Research, Development, Test & Eval, DW				17,447,841	18,681,659	177,087	18,858,746	18,308,826		18,471,245	

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Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Operational Test & Eval, Defense	208,711	187,483		187,483	178,994		178,994
Total Research, Development, Test & Evaluation	208,711	187,483		187,483	178,994		178,994

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Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	208,711	187,483		187,483	178,994		178,994
Total Research, Development, Test & Evaluation	208,711	187,483		187,483	178,994		178,994

Summary Recap of FYDP Programs							
Research and Development	208,711	187,483		187,483	178,994		178,994
Total Research, Development, Test & Evaluation	208,711	187,483		187,483	178,994		178,994

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Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	208,711	187,483		187,483	178,994		178,994
Total Research, Development, Test & Evaluation	208,711	187,483		187,483	178,994		178,994
Summary Recap of FYDP Programs							
Research and Development	208,711	187,483		187,483	178,994		178,994
Total Research, Development, Test & Evaluation	208,711	187,483		187,483	178,994		178,994

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Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
1	0605118OTE	Operational Test and Evaluation	06	93,223	76,838		76,838	78,047		78,047	U
2	0605131OTE	Live Fire Test and Evaluation	06	45,142	46,882		46,882	48,316		48,316	U
3	0605814OTE	Operational Test Activities and Analyses	06	70,346	63,763		63,763	52,631		52,631	U
		Management Support		208,711	187,483		187,483	178,994		178,994	
Total Operational Test & Eval, Defense				208,711	187,483		187,483	178,994		178,994	

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53	03	0603720S	Microelectronics Technology Development and Support (DMEA)	Volume 5 - 379
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102	04	0604826J	Joint C5 Capability Development, Integration, and Interoperability Assessments	Volume 5 - 755
103	04	0604828J	Joint FIRES Integration and Interoperability Team	Volume 5 - 775

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121	05	0605000BR	WMD Defeat Capabilities	Volume 5 - 711
122	05	0605013BL	Information Technology Development	Volume 5 - 11
123	05	0605021SE	Homeland Security Presidential Directive (HSPD-12) Initiative	Volume 5 - 45
126	05	0605070S	DoD Enterprise Systems Development and Demonstration	Volume 5 - 387
128	05	0605080S	Defense Agency Initiatives (DAI) - Financial System	Volume 5 - 425
129	05	0605090S	Defense Retired and Annuitant Pay System (DRAS)	Volume 5 - 441
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161	06	0605803SE	R&D in Support of DOD Enlistment, Testing and Evaluation	Volume 5 - 55
164	06	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	Volume 5 - 615
167	06	0204571J	Joint Staff Analytical Support (JSAS)	Volume 5 - 799
170	06	0303166J	Support to Information Operations Capability	Volume 5 - 809
172	06	0305172K	Combined Advanced Applications	Volume 5 - 121
177	06	0901598D8W	Management Headquarters WHS	Volume 5 - 1133
178	06	0903230D8W	WHS - Mission Operations Support - IT	Volume 5 - 1137
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198	07	0303126K	Long-Haul Communications - DCS	Volume 5 - 183
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206	07	0303170K	Net-Centric Enterprise Services (NCES)	Volume 5 - 245
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210	07	0303610K	Teleport Program	Volume 5 - 271
211	07	0304210BB	Special Applications for Contingencies	Volume 5 - 875
215	07	0305103K	Cybersecurity Initiative	Volume 5 - 287
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242	07	1105232BB	RQ-11 UAV	Volume 5 - 901
243	07	1160279BB	Small Business Innovative Research	Volume 5 - 909
244	07	1160403BB	Aviation Systems	Volume 5 - 921
245	07	1160405BB	Intelligence Systems Development	Volume 5 - 975
246	07	1160408BB	Operational Enhancements	Volume 5 - 993
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249	07	1160434BB	Unmanned ISR	Volume 5 - 1063
250	07	1160480BB	SOF Tactical Vehicles	Volume 5 - 1075
251	07	1160483BB	Maritime Systems	Volume 5 - 1083
252	07	1160489BB	Global Video Surveillance Activities	Volume 5 - 1111

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Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)	0605127T	182	07	Volume 5 - 537
Planning and Decision Aid System (PDAS)	0208043J	189	07	Volume 5 - 819
R&D in Support of DOD Enlistment, Testing and Evaluation	0605803SE	161	06	Volume 5 - 55
RQ-11 UAV	1105232BB	242	07	Volume 5 - 901
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SOF Tactical Vehicles	1160480BB	250	07	Volume 5 - 1075
SOF Technology Development	1160401BB	22	02	Volume 5 - 855
Small Business Innovation Research	0605502BR	151	06	Volume 5 - 725
Small Business Innovative Research	1160279BB	243	07	Volume 5 - 909
Small Business Innovative Research (SBIR)	0605502S	156	06	Volume 5 - 447
Special Applications for Contingencies	0304210BB	211	07	Volume 5 - 875
Special Programs	1160432BB	248	07	Volume 5 - 1057
Support to Information Operations Capability	0303166J	170	06	Volume 5 - 809
Teleport Program	0303610K	210	07	Volume 5 - 271
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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

Defense Contract Management Agency

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Research, Development, Test & Evaluation, Defense-Wide

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Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

08 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
122	0605013BL	Information Technology Development	05	12,530	12,042		12,042	11,505		11,505	U
		System Development And Demonstration		12,530	12,042		12,042	11,505		11,505	
Total Research, Development, Test & Eval, DW				12,530	12,042		12,042	11,505		11,505	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 8, 2016 at 14:05:37

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Contract Management Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	133.771	12.530	12.042	11.505	-	11.505	13.422	13.689	13.835	13.973	Continuing	Continuing
01: *Systems Modifications and Development*	133.771	12.530	12.042	11.505	-	11.505	13.422	13.689	13.835	13.973	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DCMA RDT&E program enables several critical initiatives across the Department supporting DoD audit readiness, Better Buying Power 3.0 (BBP 3.0), NDAA and Federal Acquisition Regulation/Defense Federal Acquisition Regulation (FAR/DFAR) changes, and enabling acquisition insight that matters. DCMA uses the RDT&E Appropriation to respond to the changes by utilizing existing and emerging developmental technologies that maximize the return on the appropriated investment. These outcomes are dependent on DCMA's ability to obtain and maintain funding consistent with the changes throughout the Department of Defense in six key areas: 1) Supply Chain and Industrial Based Analysis; 2) Contract Surveillance; 3) Contract Cost and Pricing; 4) Contract Property Shipment and Delivery; 5) Contract Entitlement and Payment; 6) Contract Modifications and Delivery Order Administration.

The Systems Modifications and Development program develops and delivers capabilities that address needs and requirements to unique sets of problems that slow down or hinder performance-based contract management for DCMA and other DoD support components. Projects are distributed among six IT and business Mission Area platforms: Electronic Contract Administration, Personnel Management, Collaboration, Asset & Service Management, Acquisition Insight, and Access Management. This program is utilized for both IT Enterprise Capability and DCMA Business Mission Area Systems. It includes technology capability development, proof-of-concept demonstrations in field applications, coordination to transition from development to operational use, and testing of capability.

DCMA utilizes an agile incremental approach for system development, modernization, and sustainment which consistently allows DCMA to deploy needed systems and major business process changes leading to overall Contract Administration Services (CAS) cost savings. Through major initiatives like Mechanization of Contract Administration Services (MOCAS), Integrated Workflow Management System (IWMS), and Talent Management System (TMS) the DCMA will achieve efficiencies, improve performance, and even improve the competency of the acquisition workforce, enabling us to support congressionally-mandated, emerging missions such as Mission Assurance and Commercial Item Pricing. Furthermore, we are invigorating our efforts to adjust to the changing environment by achieving and sustaining audit readiness, creating an agile and flexible learning organization/culture, responding to future customer programs, initiating and strengthening acquisition processes, and optimizing mission execution to support the acquisition enterprise through agile business practices.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Contract Management Agency					Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*		**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*			
B. Program Change Summary ($ in Millions)	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**
Previous President's Budget	12.530	12.542	13.193	-	13.193
Current President's Budget	12.530	12.042	11.505	-	11.505
Total Adjustments	0.000	-0.500	-1.688	-	-1.688
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-1.688	-	-1.688

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605013BL / *Information Technology Development*	Project (Number/Name) 01 / *Systems Modifications and Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
01: *Systems Modifications and Development*	133.771	12.530	12.042	11.505	-	11.505	13.422	13.689	13.835	13.973	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DCMA RDT&E program enables several critical initiatives across the Department supporting DoD audit readiness, Better Buying Power 3.0 (BBP 3.0), NDAA and FAR/DFAR changes, and enabling acquisition insight that matters. DCMA uses the RDT&E Appropriation to respond to the changes by utilizing existing and emerging developmental technologies that maximize the return on the appropriated investment. These outcomes are dependent on DCMA's ability to obtain and maintain funding consistent with the changes throughout the Department of Defense in six key areas: 1) Supply Chain and Industrial Based Analysis; 2) Contract Surveillance; 3) Contract Cost and Pricing; 4) Contract Property Shipment and Delivery; 5) Contract Entitlement and Payment; 6) Contract Modifications and Delivery Order Administration.

The Systems Modifications and Development program develops and delivers capabilities that address needs and requirements to unique sets of problems that slow down or hinder performance-based contract management for DCMA and other DoD support components. Projects are distributed among six IT and business Mission Area platforms: Electronic Contract Administration, Personnel Management, Collaboration, Asset & Service Management, Acquisition Insight, and Access Management. This program is utilized for both IT Enterprise Capability and DCMA Business Mission Area Systems. It includes technology capability development, proof-of-concept demonstrations in field applications, coordination to transition from development to operational use, and testing of capability.

DCMA utilizes an agile incremental approach for system development, modernization, and sustainment which consistently allows DCMA to deploy needed systems and major business process changes leading to overall Contract Administration Services (CAS) cost savings. Through major initiatives like Mechanization of Contract Administration Services (MOCAS), Integrated Workflow Management System (IWMS), and Talent Management System (TMS) the DCMA will achieve efficiencies, improve performance, and even improve the competency of the acquisition workforce, enabling us to support congressionally-mandated, emerging missions such as Mission Assurance and Commercial Item Pricing. Furthermore, we are invigorating our efforts to adjust to the changing environment by achieving and sustaining audit readiness, creating an agile and flexible learning organization/culture, responding to future customer programs, initiating and strengthening acquisition processes, and optimizing mission execution to support the acquisition enterprise through agile business practices.

In FY2017 MOCAS becomes a joint program effort with DFAS moving from the requirements collection phase to the development phase, which is aimed at allowing DFAS and DCMA to achieve Standard Line of Accounting (SLOA) compliance, Procurement Instrument Identifiers (PIID) compliance, and direct support of Procurement Defense Standards (PDS). This effort will lead to significant reductions in contract interest payments across DoD.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
Title: System Modifications and Development	12.530	12.042	11.505
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: IWMS DCMA replaced the Electronic Document Workflow (EDW) System with a modern Business Process Management Suite (BPMS) platform, Integrated Workflow management System (IWMS). DCMA deployed IWMS to 7000+ users resulting in the efficient receipt and acceptance of over 500,000 DoD contracts and modifications from DLA's Electronic Document Access System (EDA). DCMA Integrated IWMS with a new MIL-STD 5015.2 compliant Electronic Documents Records Management System (eDRMS) and migrated 14 million contract documents from the EDW system into eDRMS. As part of this migration, DCMA achieved a 41% reduction in the number of documents stored in DCMA's electronic contract files. The significant reduction in the number of stored contract documents, coupled with IWMS performance improvements, resulted in productivity gains associated with user document searches and uploads. EVAS In conjunction with DPAP, DCMA engaged in the Performance Assessments and Root Cause Analyses (PARCA) effort which improved the quality of analytical and predictive information by standardizing business processes and capabilities. The Analytics and Information Management System (AIMS), now titled Earned Value Analytics System (EVAS), standardized compliance assessment methodologies, tools, processes, and technologies; established a guideline assessment wizard to ensure these attributes are examined in a repeatable process and return consistent results; implemented business intelligence, analytics, and a single data repository to improve insight into operations performance across the Acquisition enterprise; improved detection of Earned Value Management System (EVMS) non-compliance; and established a consolidated view of all compliance and performance data from the same source system. TMS The DCMA Talent Management System completed development on Increment 1. The Assistant Secretary of Defense (Acquisition) previewed and endorsed the system in June of 2015. By FY-end, the system was fully tested and achieved operational readiness for a roll out in FY 2016. Supply Chain Risk Assessment System DCMA rolled out new capability on the existing framework for industrial based analysis and supplier risk. Modifications & Delivery Orders DCMA continued to make modifications in support of the Procurement Data Standard and Mass Modifications Regulations. Other Programs			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
DCMA's other programs supported WAWF modifications for industry, changes to CBAR, and the infrastructure backbone that supports multiple DCMA web capabilities.			
FY 2016 Plans: IWMS Integrated Workflow Management System (IWMS) will deploy a new capability to safeguard documents from destruction by systematically placing them in a legal hold status within eDRMS. This capability will enable DCMA to automatically purge contract documents that have exceeded their retention periods in the Agency's National Archives & Records Administration (NARA)-approved file plan, thus maintaining system performance and reducing future document storage costs. EVAS Continue work with DPAP on PARCA to improve the quality of analytical and predictive information by reducing direct impact to programs and fully implementing AT&L BBP 3.0 tasks to DCMA: "Eliminate unproductive processes and Bureaucracy" to expand data-driven Earned Value Management Systems' (EVMS), streamline and centralize EVM operations, and improve efficiency and consistency of EVMS implementation-providing acquisition insight that matters. TMS TMS Increment 1 will be deployed to 12,000 plus DCMA users. DCMA is currently finalizing Increment 2 requirements, and beginning development. TMS was previously previewed and endorsed by the ASD (ACQ) as this single system replaces a proliferation of localized systems, streamlining civilian workforce career lifecycle management through integrating competency assessment and policy compliance; enhancing ability to identify, schedule, and track training and certifications; and providing robust, enterprise-wide reporting capabilities. MOCAS MOCAS supports the Contract Management functions of the Military services throughout DoD. The MOCAS Joint Program Office between DCMA and DFAS is being established to address prototype technologies to achieve Standard Line of Accounting (SLOA) compliance, Procurement Instrument Identifiers (PIID) compliance, direct support of Procurement Defense Standards (PDS), the introduction of DD250 and EDI 850 error processing/enhancements, and Treasury reporting/disbursement processing that will significantly reduce DoD interest payments. Asset and Service Management DCMA will modernize its IT Asset and Service Management capabilities to fall in line with recent NDAA software asset and assurance changes. In addition, the effort aligns DCMA's Information Technology processes with systems that can execute			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
Information Technology Infrastructure Library (ITIL) best practices. This includes the development of configuration management capabilities to increase DCMA's cyber security posture. Supply Chain risk Assessment System DCMA will be making additional modifications to provide industrial based analysis capability to DCMA and DoD. Modifications & Delivery Orders DCMA will continue to make modifications in support of the Procurement Data Standard. Other Programs DCMA's other programs supports WAWF modifications for industry and the infrastructure backbone that support multiple DCMA web capabilities. ***FY 2017 Plans:*** DCMA will continue investing in requirements, development, testing, and deployment of MOCAS, IWMS, TMS, EVAS, and the IT Asset and Service Management capabilities. By focusing on these efforts, efficiencies gained can be reinvested to implement a line of business approach for integrating business enterprise architecture, executing requirements from Better Buying Power 3.0, and continued deployment of IT systems aimed at aligning and streamlining the identification of operational requirements against actual workload accomplishments. Aligned spiral development will allow DCMA to provide actionable and measurable data for a more comprehensive assessment capability of operational workload requirements, workload performance gaps, and requirements analysis. The ongoing development of these systems will provide future definitive quantitative and qualitative workforce and workload measures leading to more accurate resourcing determinations. In FY2017 MOCAS becomes a joint program effort with DFAS moving from the requirements collection phase to the development phase, which is aimed at allowing DFAS and DCMA to achieve Standard Line of Accounting (SLOA) compliance, Procurement Instrument Identifiers (PIID) compliance, and direct support of Procurement Defense Standards (PDS). This effort will lead to significant reductions in contract interest payments across DoD. Supply Chain risk Assessment System DCMA is looking at the possibility of redeploying the CBAR capability under the Supply Chain Risk Assessment System Modifications & Delivery Orders (MDO) DCMA is looking to modernize the MDO framework and provide a more cost effective system to modify as new regulations come out.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
Other Programs DCMA's other programs supports WAWF modifications for industry and the infrastructure backbone that support multiple DCMA web capabilities.			
Accomplishments/Planned Programs Subtotals	12.530	12.042	11.505

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 0701113BL: *PDW: Procurement Operations**	3.779	2.444	0.042	-	0.042	4.297	3.857	2.892	2.921	Continuing	Continuing
• 0701113 BL: *Operations & Maintenance*	128.532	124.286	128.410	-	128.410	158.907	161.471	160.563	165.215	Continuing	Continuing

Remarks

* Procurement amounts do not include Passenger Carrying Vehicle only includes IT related procurement
**Only O&M direct funding reflected above, reimbursable not included

D. Acquisition Strategy

DCMA is invigorating efforts to adjust to the changing environment through achieving and sustaining audit readiness, creating an agile and flexible learning organization/ culture to support future customer programs, initiating and strengthening acquisition processes and optimizing mission execution to support the acquisition enterprise through agile business practices.

As a part of our strategy and business practices, DCMA directly supports Better Buying Power (BBP) 3.0 initiatives, such as controlling costs throughout the product lifecycle, incentivizing productivity, and improving tradecraft in acquisition of services. Critical among BBP initiatives are should-cost and affordability. DCMA's expertise in these areas has enabled unprecedented savings and cost avoidance. In an environment of declining resources, this pricing talent will be a valuable asset in ensuring the Government only pays its fair share of company costs.

Additionally, in pursuing these business practices we are continuing to utilize contractors to perform specialized functions such as software development and testing. A number of mini-competitions are held with Federal Supply Schedule, Government-wide Acquisition Contracts, and DCMA Basic Purchasing Agreement Vendors.

E. Performance Metrics

To deliver on our mission and vision, the Agency is focused on four primary goals: 1) inform and contribute to cost control and affordability decisions; 2) develop agile business practices which optimize mission execution and support to the acquisition enterprise; 3) create and maintain an agile learning organization and culture

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

that strives to exceed customer expectations; and 4) expect of ourselves what we expect of our contractors: good fiscal stewardship. All four of the strategic goals go directly to the heart of the DCMA mission. The Agency helps our partners spend their finite dollars wisely, ultimately ensuring the front line Warfighters get the equipment and services they need when they need them. Adherence to executing and ultimately attaining these goals will posture DCMA to positively support current and future BBP initiatives, QDR priorities, SECDEF's six focus areas, and the PMA including initiatives in services acquisition, innovative science and technology, and efforts to ensure greater acquisition affordability and better cost control throughout the acquisition life cycle. Agency focus will not solely rest on qualitative contract administration functions, but will also focus on quantitative factors as well – those factors that will clearly emphasize the Agency's return on investment (ROI) to the Department and to our other customers and the taxpayers at large.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MOCAS	C/IDIQ	Various : Various	-	0.448	Apr 2015	2.233	Apr 2016	4.496	Apr 2017	-		4.496	Continuing	Continuing	-
IWMS	Option/ IDIQ	Various : Various	-	1.586	Oct 2015	1.674	Oct 2016	0.500	Oct 2017	-		0.500	Continuing	Continuing	-
TMS	Option/ IDIQ	Various : Various	-	2.486	Oct 2015	1.116	Oct 2016	1.000	Oct 2017	-		1.000	Continuing	Continuing	-
EVAS	Option/ IDIQ	Various : Various	-	0.201	Apr 2015	1.116	Apr 2016	1.000	Apr 2017	-		1.000	Continuing	Continuing	-
Service Mgmt	C/BPA	Various : Various	-	0.083	Apr 2015	0.224	Apr 2016	1.000	Apr 2017	-		1.000	Continuing	Continuing	-
Supply Chain Risk Assessment	Option/ IDIQ	Various : Various	-	0.879	Nov 2014	0.447	Nov 2015	0.500	Nov 2016	-		0.500	Continuing	Continuing	-
Modification and Delivery Orders	C/IDIQ	Various : Various	-	0.491	Nov 2014	0.224	Nov 2015	0.800	Nov 2016	-		0.800	Continuing	Continuing	-
Other Programs	Option/ IDIQ	Various : Various	133.771	6.356	Dec 2014	5.008	Dec 2015	2.209	Nov 2016	-		2.209	Continuing	Continuing	-
		Subtotal	133.771	12.530		12.042		11.505		-		11.505	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	133.771	12.530		12.042		11.505		-		11.505	-	-	-

Remarks

DCMA Information Technology supports the Agency's combat support 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.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*



Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

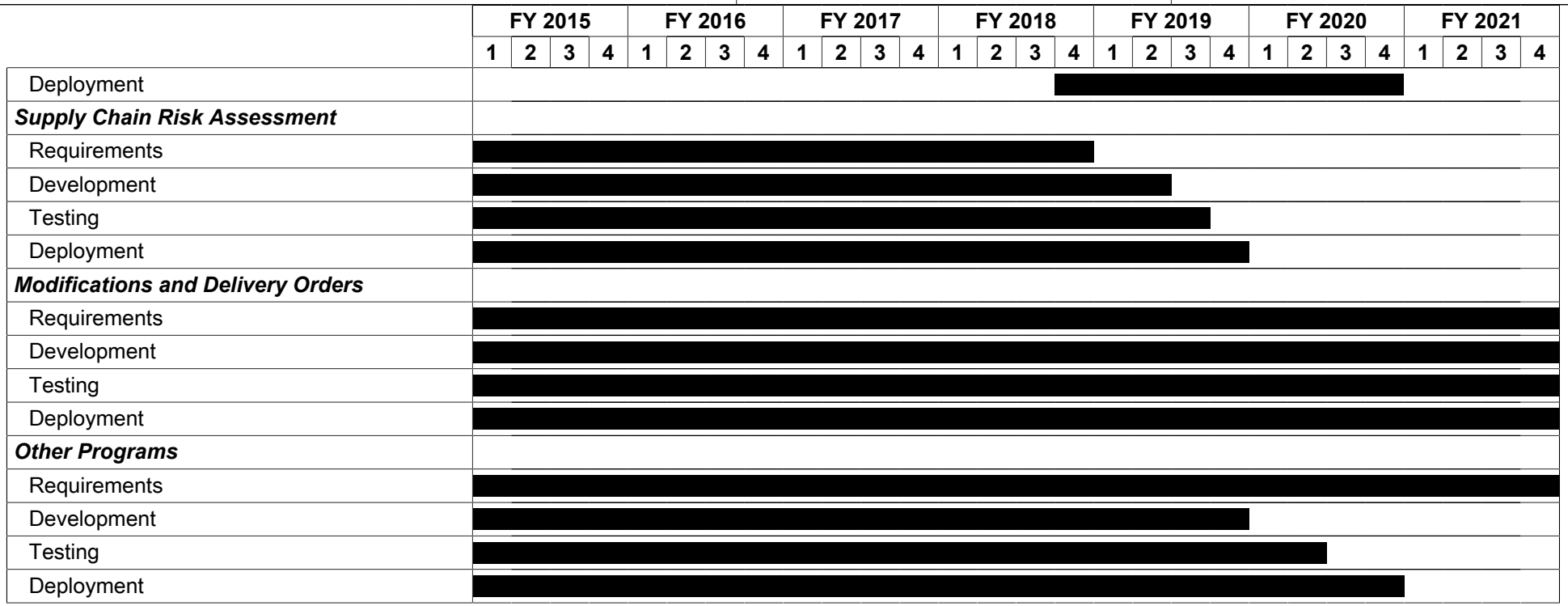

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MOCAS				
Requirements	3	2016	4	2020
Development	2	2017	4	2021
Testing	3	2017	4	2021
Deployment	4	2017	4	2021
IWMS				
Requirements	1	2015	4	2019
Development	1	2015	2	2020
Testing	2	2016	2	2020
Deployment	3	2017	3	2020
TMS				
Requirements	1	2015	4	2018
Development	1	2015	4	2019
Testing	1	2016	1	2020
Deployment	2	2016	2	2020
EVAS				
Requirements	3	2015	4	2017
Development	4	2016	3	2018
Testing	4	2016	4	2018
Deployment	1	2017	1	2019
Service Mgmt				
Requirements	3	2017	4	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Contract Management Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605013BL / *Information Technology Development*	**Project (Number/Name)** 01 / *Systems Modifications and Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Development	1	2018	2	2020
Testing	3	2018	3	2020
Deployment	4	2018	4	2020
Supply Chain Risk Assessment				
Requirements	1	2015	4	2018
Development	1	2015	2	2019
Testing	1	2015	3	2019
Deployment	1	2015	4	2019
Modifications and Delivery Orders				
Requirements	1	2015	4	2021
Development	1	2015	4	2021
Testing	1	2015	4	2021
Deployment	1	2015	4	2021
Other Programs				
Requirements	1	2015	4	2021
Development	1	2015	4	2019
Testing	1	2015	2	2020
Deployment	1	2015	4	2020

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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

DoD Human Resources Activity

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Research, Development, Test & Evaluation, Defense-Wide

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	19,430	18,695		18,695	23,898		23,898
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Advanced Technology Development	10,692	10,771		10,771			
System Development And Demonstration	286				1,658		1,658
Management Support	8,452	7,924		7,924	22,240		22,240
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898
Summary Recap of FYDP Programs							
Research and Development	19,430	18,695		18,695	23,898		23,898
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Advanced Technology Development	10,692	10,771		10,771			
System Development And Demonstration	286				1,658		1,658
Management Support	8,452	7,924		7,924	22,240		22,240
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898
Summary Recap of FYDP Programs							
Research and Development	19,430	18,695		18,695	23,898		23,898
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Defense Human Resources Activity	19,430	18,695		18,695	23,898		23,898
Total Research, Development, Test & Evaluation	19,430	18,695		18,695	23,898		23,898

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
59	0603769SE	Distributed Learning Advanced Technology Development	03	10,692	10,771		10,771				U
		Advanced Technology Development		10,692	10,771		10,771				
123	0605021SE	Homeland Personnel Security Initiative	05	286				1,658		1,658	U
		System Development And Demonstration		286				1,658		1,658	
161	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	8,452	7,924		7,924	22,240		22,240	U
		Management Support		8,452	7,924		7,924	22,240		22,240	
Total Research, Development, Test & Eval, DW				19,430	18,695		18,695	23,898		23,898	

Defense Human Resources Activity
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
59	0603769SE	Distributed Learning Advanced Technology Development	03	10,692	10,771		10,771				U
Advanced Technology Development				10,692	10,771		10,771				
123	0605021SE	Homeland Personnel Security Initiative	05	286				1,658		1,658	U
System Development And Demonstration				286				1,658		1,658	
161	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	8,452	7,924		7,924	22,240		22,240	U
Management Support				8,452	7,924		7,924	22,240		22,240	
Total Defense Human Resources Activity				19,430	18,695		18,695	23,898		23,898	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:25:30

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
59	03	0603769SE	Distributed Learning Advanced Technology Development (ADL)	Volume 5 - 39

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
123	05	0605021SE	Homeland Security Presidential Directive (HSPD-12) Initiative	Volume 5 - 45

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
161	06	0605803SE	R&D in Support of DOD Enlistment, Testing and Evaluation	Volume 5 - 55

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Program Element Title	Program Element Number	Line #	BA	Page
Distributed Learning Advanced Technology Development (ADL)	0603769SE	59	03	Volume 5 - 39
Homeland Security Presidential Directive (HSPD-12) Initiative	0605021SE	123	05	Volume 5 - 45
R&D in Support of DOD Enlistment, Testing and Evaluation	0605803SE	161	06	Volume 5 - 55

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603769SE *I Distributed Learning Advanced Technology Development (ADL)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Project 1: *Advanced Distributed Learning*	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program will transfer to OSD P&R starting in FY 2017.

The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the “art of the possible;” (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/Web-based training, serious games, virtual worlds, mobile technology, intelligent tutors, and other emerging learning technologies; (3) technologies and learning methods that empower learners; and (4) high-quality, easily accessible, adaptable, and cost-effective education and training.

The ADL Initiative’s R&D efforts improve efficiencies and reduce costs by (1) reducing the need for face-to-face instruction; (2) increasing interoperability--which enables discovery, retrieval, and reuse of distributed learning content; and (3) researching and prototyping methods of distributed learning with superior motivational and learning outcomes.

ADL’s research efforts resulted in the development of a Sharable Content Object Reference Model (SCORM), the current de facto internationally accepted standard for distributed learning interoperability. ADL is working in collaboration with our partners to develop the next generation training learning architecture (TLA). The TLA will modernize the way we learn by facilitating learning experiences that take advantage of current and emerging technologies based on new standards built on web services. ADL is conducting research on intelligent tutoring technologies that support the creation of a personal assistant for learning (PAL). The PAL will further empower learners with effective learning content that is more personalized and context sensitive. ADL was established by Executive Order 13111, with policy oversight by the Office of the Deputy Assistant Secretary of Defense (Readiness) (Training Readiness and Strategy).

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603769SE *I Distributed Learning Advanced Technology Development (ADL)*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	10.692	10.771	0.000	-	0.000
Current President's Budget	10.692	10.771	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

This program will transfer to OSD P&R starting in FY 2017.

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603769SE / *Distributed Learning Advanced Technology Development (ADL)*	Project (Number/Name) Project 1 / *Advanced Distributed Learning*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 1: *Advanced Distributed Learning*	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program will transfer to OSD P&R in FY 2017.

The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the "art of the possible;" (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/ Web-based training, serious games, The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the "art of the possible;" (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/Web-based training, serious games,

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Advanced Distributed Learning	10.692	10.771	-
Description: ADL serves as the thought-leader for the DoD and other government agencies for learning science and learning technologies, enabling innovation, finding efficiencies, guiding customers into the future, and creating a shared vision and strategy for ADL's partners.			
FY 2015 Accomplishments: • Researched innovative methodologies to using Social Networking for solving problems in collaborative, disparate environments; • Demonstrated the application of the spacing effect to reinforce learning and improve long-term knowledge retention using current mobile technologies; • Continued to test advanced instructional methods for intelligent tutors for training; • Integrated proven concepts from FY14 research into application prototypes; • Began updating policies to support DoD's Distributed Learning (DL) programs; • Continued to support the White House educational initiatives for the Learning Registry and Federal Game Guild; • Continued work with the DoD training community to develop new standards, common terminology, and best practices for developing and implementing efficient DL technologies across DoD; • Continued development of the TLA; • Continued to enable sharing of DL and 3D models used for immersive learning experiences; • Delivered tools that assist transitioning Service member to civilian jobs and/or educational opportunities;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603769SE / *Distributed Learning Advanced Technology Development (ADL)*	**Project (Number/Name)** Project 1 / *Advanced Distributed Learning*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Participated in NATO Training Groups to increase the standardization and reuse of training globally; • Continued to support the Services investment in developing/maintaining SCORM content; • Continued to advocate open source initiatives by increasing awareness of open source and licensing policies. ***FY 2016 Plans:*** • Gain efficiencies in Learning Science and Technology (LS&T) through publication of a research strategy and roadmap for future LS&T topics; • Publish articles in leading professional journals on the integration of emerging learning technologies to enhance training; • Identify emerging concepts and showcase the art-of-the-possible through the integration of emerging learning technologies and learning science to enhance training and education; • Establish the next generation LS&T research and development (R&D) program by expanding research into Human dimension, Learner-centric technology-enabled training and education, Human performance assessment (data-driven learning), Learning organizations, and social computing and social learning; • Continue work with the DoD training community to increase sharing of DL resources, standardization of DL terminology, and best practices for developing and implementing efficient and effective DL technologies across DoD; • Partner across DoD and other government agencies to support LS&T, enable knowledge sharing and coordinated investment of resources to reduce cost of training; • Lead policy and standards discussions to improve development, dissemination, and use of DL methodologies; • Facilitate transition, acceptance and adoption of new LS&T by DoD and other agencies via policy, communication and transition support; • Support the White House educational initiatives as the DoD representative to the Learning Registry and Federal Game Guild; • Participate in NATO Training Group to influence global standardization of training. • Continue to support the Services investment in developing/maintaining SCORM content. • Continue to increase sharing of learning content among DoD and other Federal Agencies by making educational resources more discoverable and retrievable • Provided best practices and lessons learned in the use of mobile devices and cloud services in support of training and education within DoD; • Continue to advocate open source initiatives by increasing awareness of open source and licensing policies.			
Accomplishments/Planned Programs Subtotals	10.692	10.771	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603769SE / *Distributed Learning Advanced Technology Development (ADL)*	**Project (Number/Name)** Project 1 / *Advanced Distributed Learning*

D. Acquisition Strategy

Not Required.

E. Performance Metrics

In FY 2016, ADL will:

1. Deliver the next version of the xAPI, which is the first component of the TLA.
2. Publish results on initial field testing of a life-long learning assistant.
3. Influence key Service and International ADL meetings and conference reference the discovery, sharing and delivery of interoperable training content;
4. Increase the sharing of data among DoD, other Federal Agencies and state and local education departments throughout the U.S., by making educational resources discoverable and retrievable and also through the open source initiative.
5. Evaluate an Intelligent Tutor with the intent to determine the utilization of this technology for DoDEA.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605021SE *I Homeland Security Presidential Directive (HSPD-12) Initiative*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	1.468	0.286	0.000	1.658	-	1.658	4.893	0.298	0.298	0.298	Continuing	Continuing
Project 1: *Homeland Security Presidential Directive (HSPD-12) Initiative*	1.468	0.286	0.000	0.158	-	0.158	0.393	0.298	0.298	0.298	Continuing	Continuing
Project 2: *Recruiting Databases*	-	0.000	0.000	1.500	-	1.500	4.500	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

In the past, HSPD-12 was the only project associated with this PE. DHRA received funding starting in FY 2017 in the PE for a new start for a Recruiting Database for JAMR's. DHRA will seek to create a new PE for the FY 2018 Presidents' Budget Submission for this project.

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)). RDTE funding in FY17 will be applied to the start-up costs for expanding the recruiting database provided to all Military Services for use with officer and enlisted recruiting and to explore the merits of expanding use to civilian recruiting as proposed in a Force of the Future initiative. Specifically, the funds will provide contractor support for the development of a pilot expanded database, procurement of additional directory lists, and the purchase of IT hardware and software for the development of a user- friendly interface for accessing the data. FY17 RDTE funds in HSPD-12 will be applied to the DoD NextGen USID and will allow the Department to replace the existing Teslin ID cards which are highly susceptible to counterfeiting due to an outdated design and lack of newer anti-counterfeiting technology, by completing the design of the new card form factor utilizing the latest technical and printing techniques on a plastic substrate which will undergo extensive quality.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.286	0.191	1.658	-	1.658
Current President's Budget	0.286	0.000	1.658	-	1.658
Total Adjustments	0.000	-0.191	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.191			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	Project (Number/Name) Project 1 / *Homeland Security Presidential Directive (HSPD-12) Initiative*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 1: *Homeland Security Presidential Directive (HSPD-12) Initiative*	1.468	0.286	0.000	0.158	-	0.158	0.393	0.298	0.298	0.298	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)). HSPD-12 requires rapid electronic authentication for all Government employees, uniformed individuals and contractors. Real Time Automated Personnel Identification System (RAPIDS)is the infrastructure that supports the Uniformed Services identification card, provides on-line updates to DEERS and issues the CAC to Service members, civilian employees, and eligible contractors, thus providing an enterprise-wide credential for both physical and logical access to DoD facilities and networks. CAC uses the DEERS database for authentication and personnel information.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Enrollment Eligibility Reporting System/HSPD-12	0.286	-	0.158
Description: 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)). HSPD-12 requires rapid electronic authentication for all Government employees, uniformed individuals and contractors. ***FY 2015 Accomplishments:*** Implemented CAC updates making us more compliant with FIPS 201-2 regulations, including Affiliation Color Code (for visually impaired), Name display, replace expired fingerprints. ***FY 2017 Plans:*** Enhance processes to facilitate flexible batch issuance processes; enable additional secure contactless capabilities			
Accomplishments/Planned Programs Subtotals	0.286	-	0.158

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Existing contract vehicles in place/GSA for COTS.

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 1 / *Homeland Security Presidential Directive (HSPD-12) Initiative*

E. Performance Metrics

None

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 1 / *Homeland Security Presidential Directive (HSPD-12) Initiative*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Homeland Personnel Security Directive (HSPD-12) Initiative	C/IDIQ	Gulf Coast Enterprise : Pensacola, FL	1.468	0.286	Dec 2015	-		0.158	Dec 2017	-		0.158	Continuing	Continuing	Continuing
		Subtotal	1.468	0.286		-		0.158		-		0.158	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.468	0.286		0.000		0.158		-		0.158	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 1 / *Homeland Security Presidential Directive (HSPD-12) Initiative*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Homeland Security Presidential Directive (HSPD-12) Initiative					[redacted]																							

Exhibit R-4A, RDT&E Schedule Details: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 1 / *Homeland Security Presidential Directive (HSPD-12) Initiative*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Homeland Security Presidential Directive (HSPD-12) Initiative	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	Project (Number/Name) Project 2 / *Recruiting Databases*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 2: *Recruiting Databases*	-	0.000	0.000	1.500	-	1.500	4.500	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

FY17 funds will go towards the start-up costs for expanding the recruiting database provided to all Military Services for use with officer and enlisted recruiting and to explore the merits of expanding use to civilian recruiting as proposed in a Force of the Future initiative. Specifically, the funds will provide contractor support for the development of a pilot expanded database, procurement of additional directory lists, and the purchase of IT hardware and software for the development of a user-friendly interface for accessing the data.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: STAR Program Recruiting Database	-	-	1.500
Description: Recruiting database provided to all Military Services			
FY 2017 Plans: FY17 funds will go towards the start-up costs for expanding the recruiting database			
Accomplishments/Planned Programs Subtotals	-	-	1.500

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Various

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	Project (Number/Name) Project 2 / *Recruiting Databases*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Recruiting Database	C/IDIQ	N/A : N/A	-	-		-		1.500	Mar 2017	-		1.500	Continuing	Continuing	-
		Subtotal	-	-		-		1.500		-		1.500	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.000		1.500		-		1.500	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 2 / *Recruiting Databases*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Recruiting Databases										[redacted]																		

Exhibit R-4A, RDT&E Schedule Details: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605021SE / *Homeland Security Presidential Directive (HSPD-12) Initiative*	**Project (Number/Name)** Project 2 / *Recruiting Databases*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Recruiting Databases	2	2017	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	32.711	8.452	7.924	22.240	-	22.240	19.956	16.526	16.573	16.030	Continuing	Continuing
Project 1: *DoD Enlistment Processing & Testing*	5.542	1.945	2.181	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Project 2: *Human Resources Automation Enhancements*	19.771	4.976	3.570	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Project 3: *NEO Tracking System*	1.522	0.531	0.616	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Project 4: *Synchronized Pre-deployment & Operational Tracker Enterprise Suite*	5.876	1.000	1.057	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Project 5: *ESGR Awards and Activity Tracking & Reporting (AATR) Tool*	0.000	0.000	0.500	0.000	-	0.000	0.900	0.000	0.000	0.000	Continuing	Continuing
Project 6: *Enterprise Data Services*	-	0.000	0.000	4.037	-	4.037	0.134	0.114	1.165	0.619	Continuing	Continuing
Project 7: *DSAID*	-	0.000	0.000	3.590	-	3.590	4.916	0.000	0.000	0.000	Continuing	Continuing
Project 8: *CAP*	-	0.000	0.000	0.000	-	0.000	1.780	1.303	0.000	0.000	Continuing	Continuing
Project 9: *Surveys, Testing, Research and Assessment (STAR)*	-	0.000	0.000	3.680	-	3.680	3.640	4.061	4.161	4.161	Continuing	Continuing
Project 10: *Enterprise Human Resource Infor System(EHRIS)*	-	0.000	0.000	4.585	-	4.585	2.493	4.320	4.419	4.422	Continuing	Continuing
Project 11: *Personnel Accountability (PA)*	-	0.000	0.000	2.091	-	2.091	1.742	2.188	2.193	2.193	Continuing	Continuing
Project 12: *Personnel Security Assurance (PSA)*	-	0.000	0.000	4.257	-	4.257	4.351	4.540	4.635	4.635	Continuing	Continuing

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*

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.

For FY 2017, as a result of a Business Process and Systems Review, DHRA will implement a major reorganization that will impact the DHRA RDT&E budget. The most significant aspect of this reorganization, from a RDT&E perspective, will be the integration of the Enterprise Human Resources Information System (EHRIS) into the Defense Manpower Data Center's (DMDC) portfolio of information technology (IT) initiatives. Additionally, DHRA has implemented a major reorganization of the DMDC programs to more accurately align budget program lines with the DHRA Information Technology (IT) data reported in the DHRA IT Budget. The Defense Eligibility and Enrollment System (DEERS); Data Governance; Real Time Automated Personnel Identification System (RAPIDS); Common Access Card (CAC); Cyber Security program has been decomposed into a DEERS program and a RAPIDS program, with CAC being retained as part of the RAPIDS program. Synchronized Pre-deployment and Operational Tracker (SPOT) has been integrated into a Personnel Accountability (PA) program, that also includes Joint Personnel Accountability Reconciliation and Reporting (JPARR), and the Noncombatant Evacuation Operations (NEO) Tracking System (NTS).

Project 1: DoD Enlistment Processing and Testing. The project 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 to report recruit quality data to Congress. High quality recruits are obtained from administering the ASVAB annually to approximately 600,000 applicants for Military Service as part of the DoD Enlistment Testing program, and to 1 million students in the DoD Student Testing program. Each Service also uses ASVAB test forms developed in this program as part of their in-service testing programs. New ASVAB test forms and related support materials are implemented approximately every four years. This allows DoD to make measurement improvements as well as decrease 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.
This program realigns to STAR which is project #9..

Project 2: Human Resources Automation Enhancements. The Defense Civilian Personnel Advisory Service (DCPAS), a DHRA component, manages and operates a number of major DoD programs, including the Defense Civilian Personnel Data System (DCPDS). DCPDS is the Department's enterprise civilian human resources information system. It ensures a coherent, standardized, and cost-effective system for the entire Department. DCPDS is built using a commercial off-the-shelf product customized for Federal and Defense requirements. The system is web-enabled and provides flexibility to respond to changes in the Department's civilian human resources (HR) operational requirements.
DCPDS supports HR operations and improved business processes with continuous implementation of improved technology, meeting cost, schedule, and performance goals. Network and system operations span worldwide, with 24/7 operations that support 19 Regional Service Centers and over 300 Customer Support Units. In FY 15, funds for new development are insufficient to implement all planned civilian HR IT Roadmap initiatives. Many projects will be pushed to FY 16 and therefore require additional funding. These include the implementation of manager and employee initiated actions, expansion of the data warehouse, and movement of all HRIT systems to the Denver Data Center.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*

Other DCPAS programs supporting the civilian workforce include minimizing involuntary separations, assisting laid-off workers, maintaining workforce balance, and reducing the costs of DoD's workers and unemployment compensation. DHRA/DCPAS supports the development, issuance and maintenance of uniform DoD-wide civilian personnel policy; provides program guidance and technical interpretation for both appropriated and non-appropriated funded civilian HR programs ; manages DoD's Civilian Assistance and Re-Employment (CARE) program, including the Priority Placement Program (PPP); investigates and mediates discrimination complaints; conducts grievance investigations; and manages the operation of the enterprise civilian HR information system, DCPDS. These programs are supported by an aggressive data automation program, to include a communications capability, computing equipment, and an automation software link to standardize these divergent functions. These funds continue to support these processes.
This project realigns to EHRIS, which is project #10 starting in FY 2017.

Project 3: NEO Tracking System. The Non-Combatant Evacuation Operations (NEO)Tracking System (NTS) / Emergency Tracking Accountability System (ETAS) is a certified and accredited DoD automated system that accounts for, and sustains visibility of noncombatant evacuees during a NEO under the authority of DODD 1000.25, DoD Personnel Identity Protection (PIP) Program. NTS is currently being used in the USAFRICOM, USCENTCOM, USEUCOM, USSOUTHCOM, and USPACOM Area of Responsibility. The ETAS component is the CONUS domestic version of NTS and is for use by USNORTHCOM during disasters in the CONUS whether natural, accidental, or acts of terrorism. The primary purpose of the NTS/ETAS is to provide individual accountability of the evacuee by creating and maintaining a database of evacuees assembled during an evacuation operation and subsequently tracking the evacuees' movement throughout the evacuation process. Minor growth from FY 2015 to FY 2016 is attributed to research and development supporting the integration of the Enterprise Identity Attribute Service and the Organization Unique Identifiers in this family of systems that provides secure attribute based access control.
This project realigns to PA which is project #11 starting in FY 2017.

Project 4: Synchronized Pre-deployment & Operational Tracker Enterprise Suite. The Synchronized Pre-deployment and Operational Tracker Enterprise Suite (SPOT-ES) is the Department of Defense (DoD) system of record for accountability and visibility of contracts and contractor personnel authorized to operate in a contingency operation. SPOT-ES provides web based tracking and visibility into contract services, personnel and equipment locations; provides a common operational picture for Combatant Commanders; enhances the analytical tools to accurately plan for the quantity of contracted support required for future contingency operations; and collects accurate data for the Office of Management and Budget- directed quarterly census of all contractors supporting contingency operations. Minor growth from FY 2015 to FY 2016 is attributed to development and integration of more rugged and transportable Automatic Identification Technologies that facilitates person accountability and property tracking and accountability of the NTS.
This project realigns under PA, which is project #11 starting in FY 2017.

Project 5: ESGR Awards & Activity Tracking (AATR) Tool. Employer Support of the Guard and Reserve (ESGR) requires a comprehensive web-based application (Awards and Activity Tracking and Reporting) to track ESGR Activities to include briefings and recognition of civilian employers and briefings of National Guard and Reserve that will track against organizational goals vs. costs and the hours donated by Volunteers. The application will replace several manual processes that use Microsoft Excel spreadsheets across 54 State Committees and through contractor support. This will also place all critical data in a DoD Data Center. Development of a web-based application would immensely improve data collection and analysis while allowing field staff and volunteers to better focus on operations and mission accomplishment. The application would be an addition to ESGR's current Portal that contains ESGR's member management, inquiry and case management, and

freedom award nomination systems. In FY 2016, funding will support the design and efforts will carry over into FY 2017. In FY 2018, funds required to build and implement design changes.

Project 6: Enterprise Data Services. Cybersecurity deals with the unauthorized exposure of classified data to WikiLeaks raised awareness on the need for improved data security management and access control measures across DoD IT enterprise. In PBR-12 one issue was critically linked to this risk and fully funded - Cross Domain Information Sharing (CDS). CDS provides for protected, automated transfer of data across networks of different security classifications reducing the need for removable media while better safe guarding the transport of information from one network to another. DMDC is developing the Enterprise Identity Attribute Service (EIAS)/Access Based Access Control technology in the classified environment as an immediate deterrent to allow/deny access to classified information giving the DoD the ability to control and monitor pre-provisioned user access in a manner that cannot be repudiated (e.g., using CAC-enabled PKE Authentication). Further, DOD will have the ability to enable, monitor and control the authorized transfer of information between SIPRNET and other DOD Networks as required via globally available and operationally effective cross domain enterprise service solutions. This is a new start.

Project 7: Defense Sexual Assault Incidents Database. The Defense Sexual Assault Incidents Database (DSAID) is the integrated DoD SAPR Data Collection and Reporting System that accommodates a variety of uses, including the tracking of sexual assault victim support services, support SAPR program administration, program reporting requirements, and data analysis. In order to facilitate analysis at the OSD level, the System will be able to easily export data for analysis in computerized statistical applications, such as Statistical Package for the Social Sciences (SPSS). Service field-level users use the system to track support to victims of sexual assault throughout the lifecycle of that support requirement and to facilitate sexual assault case transfer between SARCs and Services. Service headquarters-level users use the system to support program planning, analysis, and management. DoD SAPR Office (SAPRO) users and Service headquarters-level users access the system to produce mandated and requested reports, monitor program effectiveness and support cohort and trend analysis.

Project 8. Computer/Electronic Accommodations Program. The Computer/Electronic Accommodations Program (CAP) mission is to provide assistive technology and accommodations to support individuals with disabilities and wounded, ill, and injured Service members throughout the Federal Government in accessing information and communication technology. CAP currently has partnerships with 69 federal agencies. CAP's wounded, ill, and injured Service member's initiative is designed to cover active duty Service members, to include Guard or Reserve who are on active duty orders, including Title 10 orders. Since its inception, the program has provided over 150,000 accommodations for Department of Defense (DoD) and non-DoD employees with disabilities and wounded, ill, and injured Service members. In Fiscal Year (FY) 2014 alone, CAP filled 12,789 accommodations – the most ever in a single year.

Currently CAP utilizes a Government-Off-The-Shelf (GOTS) product designed to support the program's robust mission. This product, CAP Portal, is used primarily to process DoD and other government agencies requests for hardware, software, training, and other miscellaneous accommodation services. CAP Portal also processes information pertaining to developing and tracking requirements packages, market research, events and outreach to include proposals, presentations, materials, and assistive technology. The CAP Portal allows staff and contract support personnel to utilize all aspects of its functionality to facilitate the provision of reasonable accommodations, and run various reports to make financial forecasts with the data that is contained within the system.

Project 9: STAR project 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 to report recruit quality data to Congress. High quality recruits

are obtained from administering the ASVAB annually to approximately 600,000 applicants for Military Service as part of the DoD Enlistment Testing program, and to 1 million students in the DoD Student Testing program. Each Service also uses ASVAB test forms developed in this program as part of their in-service testing programs. New ASVAB test forms and related support materials are implemented approximately every four years. This allows DoD to make measurement improvements as well as decrease 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. This is a new project but not a new start. This project realigns from Project 1 starting in FY 2017.

Project 10: (EHRIS) is the Department's enterprise civilian human resources (HR) transactional system supporting 800,000 employees, representing approximately one-third of the federal government's civilian work force. DCPDS has proven its business case, avoiding costs for the Department of over $200M/year when compared to the multiple DoD Component operational costs prior to establishment of the enterprise system. The consolidation of all instances of DCPDS at the DDC completed in 2014 has resulted in substantial component savings. In FY 15/16, additional data center consolidation will include additional HRIT Enterprise systems moving to the DDC.
Network and system operations span worldwide, with 24/7 operations that support 19 Regional Service Centers and over 300 Customer Support Units. The current focus of DCPDS is the expansion of these efficiencies through the consolidation of DCPDS operations to a single database and expansion of capabilities to support integrated Benefits processing and data management supporting Department's Force of the Future initiative.
Other DCPAS programs supporting the civilian workforce include minimizing involuntary separations, assisting laid-off workers, maintaining workforce balance, and reducing the costs of DoD's workers and unemployment compensation via the Defense Injury and Unemployment Compensation System (DIUCS). DHRA/DCPAS supports the development, issuance and maintenance of uniform DoD-wide civilian personnel policy; provides program guidance and technical interpretation for both appropriated and non-appropriated funded civilian HR programs ; manages DoD's Civilian Assistance and Re-Employment (CARE) program, including the Priority Placement Program (PPP); investigates and mediates discrimination complaints; conducts grievance investigations; and manages the operation of the enterprise civilian HR information system, DCPDS. These programs are supported by an aggressive data automation program, to include a communications capability, computing equipment, and an automation software link to standardize these divergent functions. These funds continue to support these processes. This is a new project but not a new start. This project realigns from Project 2.

Project 11: Personnel Accountability program is comprised of three systems: Synchronized Pre-deployment Operational Tracker (SPOT), Joint Personnel Accountability Reconciliation and Reporting (JPARR), 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 civilian, contractor and U.S. citizens. This includes DoD travel, contracts, and contractor personnel tracking in support of 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 is a new project but not a new start. This project realigns from project #3 and project #4.

Project 12: Personnel Security Assurance (PSA) provides 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. Planning funds

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 DoD Human Resources Activity	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605803SE *I R&D in Support of DOD Enlistment, Testing and Evaluation*

within this program will support the Defense Information System for Security (DISS) which transfers to DHRA/DMDC from DLA starting in FY 2017. The DISS mission is to consolidate the DoD personnel security mission into an enterprise adjudicative case management system that will automate the implementation of improved national investigative and adjudicative standards to eliminate costly and inefficient work processes and increase information collaboration across the community. This is a new start.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	8.452	9.533	22.240	-	22.240
Current President's Budget	8.452	7.924	22.240	-	22.240
Total Adjustments	0.000	-1.609	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.609			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Congress gave DHRA a reduction of 1,609.

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 1 / *DoD Enlistment Processing & Testing*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 1: *DoD Enlistment Processing & Testing*	5.542	1.945	2.181	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 primary mission of DoD Enlistment Processing and Testing 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 technically more demanding military.

This project realigns to Project #9, STAR and Project #12 PSA. starting in FY 2017

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: DoD Enlistment Processing & Testing	1.945	2.181	-
Description: DoD Enlistment Processing & Testing			
FY 2015 Accomplishments: • Implemented unproctored Internet testing • Continue to research on revisions to ASVAB content • Evaluate methods to convert all STP to Computer Adaptive Test (CAT) • Continue to evaluate the use of internet-based CAT-ASVAB in the Career Exploration Program (CEP) • Continue to reduce the frequency and impact of ASVAB test compromise, ensuring applicants are qualified to perform the military duties and responsibilities			
FY 2016 Plans: • Continue the research effort on new measures/new content that could potentially be added to the ASVAB • Continue development of new ASVAB test items in accordance with revision procedures • Develop automated item generation of Word Knowledge items • Continue evaluation of unproctored internet testing			
Accomplishments/Planned Programs Subtotals	1.945	2.181	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 1 / *DoD Enlistment Processing & Testing*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

NOT REQUIRED.

E. Performance Metrics

Each project contained within this program contains specific metrics to determine progress towards completion. Metrics for all include completed and documented analysis provided by the performer. The completion date for that analysis varies with each project. In addition, to that analysis, each effort contains a roadmap addressing the best use of the findings throughout the department. If the results of the analysis show benefit to the Department, those findings are included in policy, doctrine, tactics and procedures.

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 2 / *Human Resources Automation Enhancements*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 2: *Human Resources Automation Enhancements*	19.771	4.976	3.570	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Civilian HR automation enhancements planned for are focused on software development to support the Department's civilian workforce, including a DoD-Wide performance management system; enhancement of employee competency assessment capability; modernization of injury and unemployment compensation case management; and EEO investigations case management. In addition, changes to DCPDS are required for mandates for the Office of Personnel Management (OPM), HR Line of Business (LoB), electronic Official Personnel Folder, and Retirement Systems Modernization implementation. DoD is one of five designated Shared Service Centers in the federal government focused on providing standard services across agency lines, gaining potential significant business and cost-saving benefits. DoD is considered a leader in this initiative.

DCPDS is the Department's enterprise civilian HR system that has provided the savings originally projected in the achievement of full operational capability in 2002 and which has continued to operate as the DoD system serving over 800,000 employee records. Additional initiatives to sustain the Department's lead in automated systems include expansion of employee self-service functionality, and support for data warehouse improvements, engineering plans for consolidation and migration to a federal data center, an employee-manager portal, and information assurance initiatives to comply with DoD-mandated DMZ requirements. DCPDS enhancements will support the Department's focus on the further consolidation of civilian HR operations to a single operational site, with linkage to Component operations worldwide.

This project realigns to Project #10, EHRIS, starting in FY 2017.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Human Resources Automation Enhancements	4.976	3.570	-
FY 2015 Accomplishments: • Implement initial cloud computing, data warehouse improvements and continued expansion of web services (15) • Enhance information assurance requirements, including DMZ extension mandates (15) • Consolidate DCPAS supported applications to enterprise data center (15) • Maximize the Departments' systems to (1) manage injury and unemployment compensation cases; (2) assess executive (and equivalent) performance; (3) move all HRIT Enterprise systems to a common data center, which is managed under the same controls and inherits common security protocols; (4) enhance the DoD capability to assess competencies and plan for workforce development. (15) • Plan modernization and integration of legacy applications (15)			

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 2 / *Human Resources Automation Enhancements*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Implement mobility access to DCPDS (Employment Verification and Leave Balance) within the Joint Information Environment (JIE) (15) • Enhance warm site disaster recovery capabilities (15) • Develop enhancements to comply with HR legislative and DoD regulatory requirements (Ongoing) • Support required changes for HR LoB interfaces and other OPM/OMB mandates (Ongoing) • Implement continuous auditing and monitoring to improve compliance with FIAR (Ongoing) ***FY 2016 Plans:*** • Implement new capabilities, including employee/manager initiated actions, on portal (16) • Improve infrastructure virtualization to increase performance at improved cost (16) • Implement SSN Reduction in the DCPDS Mass Action Process (16) • Implement integration of supported applications (16) • Upgrade system platform to latest commercial version (16) • Develop enhancements to comply with HR legislative and DoD regulatory requirements (Ongoing) • Support required changes for HR LoB interfaces and other OPM/OMB mandates (Ongoing) • Implement continuous auditing and monitoring to improve compliance with FIAR (Ongoing)			
Accomplishments/Planned Programs Subtotals	4.976	3.570	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 3 / *NEO Tracking System*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 3: *NEO Tracking System*	1.522	0.531	0.616	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 Neo Tracking System (NTS) / Electronic Tracking Accountability System (ETAS) is a certified and accredited DoD automated system that accounts for, and sustains visibility of noncombatant evacuees during a NEO under the authority of DODD 1000.25, DoD Personnel Identity Protection (PIP) Program. NTS is currently being used in the USAFRICOM, USCENTCOM, USEUCOM, USSOUTHCOM, and USPACOM AORs. The ETAS component is the CONUS domestic version of NTS and is for use by USNORTHCOM during disasters in the CONUS whether natural, accidental, or acts of terrorism. The primary purpose of the NTS/ETAS is to provide individual accountability of the evacuee by creating and maintaining a database of evacuees assembled during an evacuation operation and subsequently tracking the evacuees' movement through the evacuation process.

This project realigns to Project #11, PA, starting in FY 2017.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: NEO Tracking System (NTS)	0.531	0.616	-
FY 2015 Accomplishments: • Continue to upgrade system software and hardware drivers for Windows 7, 64-bit compatibility • Continue with hardware implementation • Provide automate distribution of system updates • Provide immediate authentication of emergency essential personnel • Provide web services to support development of Enterprise organizations attribute service for DoD which supports the Secure Data Access.			
FY 2016 Plans: • Will continue to upgrade hardware implementations • Will continue with automation distribution of system updates • Continue with the development and deploy required interface, Deploy Global Air Transportation Execution System Interface, the Advance Passenger Information System Customs and Border Protection, and Joint Patient Assessment and Tracking Systems, Health and Human Services.			
Accomplishments/Planned Programs Subtotals	0.531	0.616	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 3 / *NEO Tracking System*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

Existing contract vehicles in place/GSA for COTS.

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 4 / *Synchronized Pre-deployment & Operational Tracker Enterprise Suite*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 4: *Synchronized Pre-deployment & Operational Tracker Enterprise Suite*	5.876	1.000	1.057	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 three sub-programs: Synchronized Pre-deployment and Operational Tracker (SPOT), Joint Personnel Accountability Reconciliation and Reporting (JPARR), 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, contractors, and U.S. citizens. This includes DoD travel, contracts, and contractor personnel tracking in support of 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 system of record for accountability and visibility of contracts and contractor personnel authorized to operate in a contingency operation. JPARR is a "public" SIPR only application that provides daily person-level location reporting. JPARR receives feeds for Service and Agency deployment systems, reconciles the data, and provides various reports at unit level detail. NTS is a certified and accredited DoD automated system that accounts for, and sustains visibility of noncombatant evacuees during a NEO.

This project realigns to Project #11, PA, starting in FY 2017.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Synchronized Pre-deployment & Operational Tracker Enterprise Suite	1.000	1.057	-
FY 2015 Accomplishments: • Continued to be the system of record for accountability and visibility of contracts and contractor personnel in support of the CENTCOM Area of Responsibility and other contingencies, humanitarian assistance, peacekeeping operations, and other missions and exercises as designated by the Combatant Commanders around the world. • Continued to provide the only DoS, DoD, and USAID sanctioned Letter of Authorization (LOA) which provides the Authorized Government Services to contractor personnel. • Provided the information on contractor personnel supporting Iraq and Afghanistan to the Office of the Secretary of Defense for reports to Congress. • Provided the number of contractor personnel and contract capability to Combatant Commands for operational planning purposes and to aid in their decision making processes. • Modified SPOT and TOPSS to accommodate the emerging requirement to account for contractors supporting Operation United Assistance in Liberia and Senegal. Deployed three JAMMS workstations for that mission. • Modified the Letter of Authorization format to accommodate changing requirements.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 4 / *Synchronized Pre-deployment & Operational Tracker Enterprise Suite*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Upgraded to SQL Server 2012. • Modified SPOT/TOPSS to accommodate the new standard for Federal Procurement Identification number format for DoD. • Developed Audit Compliance Reports for TOPSS to allow Contracting Officers to better evaluate performance of contractor companies and hold them accountable for data maintenance. • Upgraded browser compatibility for TOPSS to include Internet Explorer 8/9/10/11, Firefox, and Chrome. ***FY 2016 Plans:*** • Continue to be the system of record for accountability and visibility of contracts and contractor personnel in support of the CENTCOM Area of Responsibility and other contingencies, humanitarian assistance, peacekeeping operations, and other missions and exercises as designated by the Combatant Commanders around the world. • Continue to provide the only DoS, DoD, and USAID sanctioned Letter of Authorization (LOA) which provides the Authorized Government Services to contractor personnel. • Provide the information on contractor personnel supporting Iraq and Afghanistan to the Office of the Secretary of Defense for reports to Congress. • Provide the number of contractor personnel and contract capability to Combatant Commands for operational planning purposes and to aid in their decision making processes. • Incorporate a QR code into the LOA to reduce fraud and enable real-time validation independent of JAMMS. • Modify SPOT/TOPSS to accommodate the new standard for Federal Procurement Identification number format for all non-DoD agencies. • Develop/release additional Audit Compliance Reports for TOPSS to allow Contracting Officers to better evaluate performance of contractor companies and hold them accountable for data maintenance. • Upgrade browser compatibility for SPOT to include Internet Explorer 8/9/10/11, Firefox, and Chrome. • Upgrade all JAMMS hardware. • Complete pilot of JAMMS Next Generation and JAMMS credential issuance.			
Accomplishments/Planned Programs Subtotals	1.000	1.057	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 4 / *Synchronized Pre-deployment & Operational Tracker Enterprise Suite*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 5 / *ESGR Awards and Activity Tracking & Reporting (AATR) Tool*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 5: *ESGR Awards and Activity Tracking & Reporting (AATR) Tool*	0.000	0.000	0.500	0.000	-	0.000	0.900	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Design and build an Awards and Activity Tracking and Reporting (AATR) to track ESGR Activities to include briefings and recognition of civilian employers and briefings of National Guard and Reserve that will track against organizational goals vs. costs and the hours donated by Volunteers.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: ESGR Awards and Activity Tracking and Reporting (AATR) Tool	-	0.500	-
FY 2016 Plans: • Design and build Awards and Activity Tracking and Reporting (AATR)			
Accomplishments/Planned Programs Subtotals	-	0.500	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 6 / *Enterprise Data Services*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 6: *Enterprise Data Services*	-	0.000	0.000	4.037	-	4.037	0.134	0.114	1.165	0.619	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Cybersecurity deals with the unauthorized exposure of classified data to sites such as WikiLeaks which raised awareness on the need for improved data security management and access control measures across DoD IT enterprise. Cross Domain Information Sharing (CDS) provides for protected, automated transfer of data across networks of different security classifications reducing the need for removable media while better safe guarding the transport of information from one network to another. DMDC is developing the Enterprise Identity Attribute Service (EIAS)/Access Based Access Control technology in the classified environment as an immediate deterrent to allow/deny access to classified information giving the DoD the ability to control and monitor pre-provisioned user access in a manner that cannot be repudiated (e.g., using CAC-enabled PKE Authentication). Further, DOD will have the ability to enable, monitor and control the authorized transfer of information between SIPRNET and other DOD Networks as required via globally available and operationally effective cross domain enterprise service solutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Enterprise Data Services (EDS)	-	-	4.037
FY 2017 Plans: • Procure the Automated Regression and Functional Testing (EoSL) Modernization • Install Microsoft Forefront Identity Management (FIM) • Implement Network (EoSL) Lifecycle Modernization • Modernize the VTC/AV Upgrades for DoDC (Seaside) and Mark Center (EoSL) Lifecycle Modernization • Server End of Service Life (EoSL) Lifecycle Modernization • Wireless Local Area Network (WLAN) (EoSL) Lifecycle Modernization • Destruction Of Mainframe Tapes • Implementation of Audit Log Management • Continued development and implementation of the Intrusion Detection System / Intrusion Prevention System (IDS/IPS) • Continued installation of required Port Aggregators • Implement Rogue System Detection (RSD) • Implement Dynamic Code Scanning Solution (NTO Spider) • Implement Static Code Scanning Solution (Fortify)			
Accomplishments/Planned Programs Subtotals	-	-	4.037

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 6 / *Enterprise Data Services*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 7 / *DSAID*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 7: *DSAID*	-	0.000	0.000	3.590	-	3.590	4.916	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Sexual Assault Incidents Database (DSAID) is the integrated DoD SAPR Data Collection and Reporting System that accommodates a variety of uses, including the tracking of sexual assault victim support services, support SAPR program administration, program reporting requirements, and data analysis.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Sexual Assault Incidenets Database (DSAID)	-	-	3.590
FY 2017 Plans: • Develops Secure File Locker Mechanism • Migrates from Oracle 11g to SQL Server 2012 or government approved database server & converts DSAID to Government off the Shelf (GOTS) • Incorporate DSAID Control Board (CCB) approved and pending Change Requests (CRs) • Add functionality to the Enhanced Reporting Capability			
Accomplishments/Planned Programs Subtotals	-	-	3.590

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 8 / *CAP*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 8: *CAP*	-	0.000	0.000	0.000	-	0.000	1.780	1.303	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Currently, CAP has applied for CAP Portal certification as a Defense Business System (DBS). This project will help CAP obtain and maintain an optimized and certified DBS that executes data collection, records management, and reporting accountability for all stakeholders. In order to enhance areas of program data-tracking capabilities and stabilize the environment for future operations, CAP requires modernization of CAP Portal. The CAP Portal has pages/controls that have accumulated up to 7,000 lines of code, making it difficult to ensure the reliability of any updates made to the system which has undergone over 500 change requests since its launch. There are components and functionality that are no longer being utilized and others needed, but it is risky to remove or disable due to the interconnected nature of the codebase. The current codebase utilizes an outdated framework that is difficult to maintain. The CAP Modernization Project will implement a .NET Model View Controller (MVC) framework to separate the business, display and input layers of the code. As CAP's operating procedures evolve, CAP Portal's current structure will not match the changing business needs of its users. Towards that end, the issue of restructuring CAP Portal is necessary to ensure flexibility and reliability moving forward. As a result of an outdated framework, the current CAP Portal is becoming increasingly challenging to maintain and less reliable when making updates. The CAP Modernization Project will provide a restructured database for CAP Portal with an updated codebase to provide a solid foundation that supports CAP's current structure and business processes while also increasing flexibility for future enhancements and efficiencies. All aspects of CAP Portal will be enhanced by this project, which will provide a streamlined foundation on which to incorporate new internal processing workflow entitled ONE CAP. It will provide the ability to implement new processes that reflect the current organization, roles, responsibilities, tasks and specific workflow and assignments. The modernization of technology will ensure full integration of the new internal operating model.

B. Accomplishments/Planned Programs ($ in Millions)

N/A

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 9 / *Surveys, Testing, Research and Assessment (STAR)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 9: *Surveys, Testing, Research and Assessment (STAR)*	-	0.000	0.000	3.680	-	3.680	3.640	4.061	4.161	4.161	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The primary mission of STAR 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 technically more demanding military.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Surveys, Testing, Research and Assessment (STAR)	-	-	3.680
FY 2017 Plans: • Develop automated item generation of General Science and Arithmetic Reasoning items • Research efforts on new measures/new content that could potentially be added to the ASVAB			
Accomplishments/Planned Programs Subtotals	-	-	3.680

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 10 / *Enterprise Human Resource Infor System(EHRIS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 10: *Enterprise Human Resource Infor System(EHRIS)*	-	0.000	0.000	4.585	-	4.585	2.493	4.320	4.419	4.422	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Civilian HR automation enhancements planned for are focused on software development to support the Department's civilian workforce, including a DoD-Wide performance management system; enhancement of employee competency assessment capability; modernization of injury and unemployment compensation case management; and EEO investigations case management. In addition, changes to DCPDS are required for mandates for the Office of Personnel Management (OPM), HR Line of Business (LoB), electronic Official Personnel Folder, and Retirement Systems Modernization implementation. DoD is one of five designated Shared Service Centers in the federal government focused on providing standard services across agency lines, gaining potential significant business and cost-saving benefits. DoD is considered a leader in this initiative.

EHRIS is the Department's enterprise civilian HR system that has provided the savings originally projected in the achievement of full operational capability in 2002 and which has continued to operate as the DoD system serving over 800,000 employee records. Additional initiatives to sustain the Department's lead in automated systems include expansion of employee self service functionality, and support for data warehouse improvements, engineering plans for consolidation and migration to a federal data center, an employee-manager portal, and information assurance initiatives to comply with DoD-mandated DMZ requirements. DCPDS enhancements will support the Department's focus on the further consolidation of civilian HR operations to a single operational site, with linkage to Component operations worldwide.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Enterprise Human Resource Infor System(EHRIS)	-	-	4.585
FY 2017 Plans: • Deliver improved Benefits processing and employee self service capabilities • Complete consolidation to single database • Explore integration of time and attendance and payroll processing			
Accomplishments/Planned Programs Subtotals	-	-	4.585

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 10 / *Enterprise Human Resource Infor System(EHRIS)*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 11 / *Personnel Accountability (PA)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 11: *Personnel Accountability (PA)*	-	0.000	0.000	2.091	-	2.091	1.742	2.188	2.193	2.193	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The PA program is comprised of three sub-programs: Synchronized Pre-deployment and Operational Tracker (SPOT), Joint Personnel Accountability Reconciliation and Reporting (JPARR), 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, contractors, and U.S. citizens. This includes DoD travel, contracts, and contractor personnel tracking in support of 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 system of record for accountability and visibility of contracts and contractor personnel authorized to operate in a contingency operation. JPARR is a "public" SIPR only application that provides daily person-level location reporting. JPARR receives feeds for Service and Agency deployment systems, reconciles the data, and provides various reports at unit level detail. NTS is a certified and accredited DoD automated system that accounts for, and sustains visibility of noncombatant evacuees during a NEO.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Personnel Accountability (PA)	-	-	2.091
FY 2017 Plans: • Continue to be the system of record for accountability and visibility of contracts and contractor personnel in support of the CENTCOM Area of Responsibility and other contingencies, humanitarian assistance, peacekeeping operations, and other missions and exercises as designated by the Combatant Commanders around the world. • Continue to provide the only DoS, DoD, and USAID sanctioned Letter of Authorization (LOA) which provides the Authorized Government Services to contractor personnel. • Provide the information on contractor personnel supporting Iraq and Afghanistan to the Office of the Secretary of Defense for reports to Congress. • Provide the number of contractor personnel and contract capability to Combatant Commands for operational planning purposes and to aid in their decision making processes. • Field JAMMS NG to all locations currently serviced by JAMMS. • Allow for two different JAMMS credentials - paper LOA and plastic credential.			
Accomplishments/Planned Programs Subtotals	-	-	2.091

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	**Project (Number/Name)** Project 11 / *Personnel Accountability (PA)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 DoD Human Resources Activity			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605803SE / *R&D in Support of DOD Enlistment, Testing and Evaluation*	Project (Number/Name) Project 12 / *Personnel Security Assurance (PSA)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Project 12: *Personnel Security Assurance (PSA)*	-	0.000	0.000	4.257	-	4.257	4.351	4.540	4.635	4.635	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Personnel Security Assurance (PSA) provides 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. Funds within this program will support the Defense Information System for Security (DISS). The DISS mission is to consolidate the DoD personnel security mission into an enterprise adjudicative case management system that will automate the implementation of improved national investigative and adjudicative standards to eliminate costly and inefficient work processes and increase information collaboration across the community.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Personnel Security Assurance	-	-	4.257
FY 2017 Plans: • Completion of the Case Adjudication Tracking System (CATS) Service Desk application development. • Completion of the Enterprise Service Bus (ESB) development. • Completion of activities related to the development and testing of the Joint Verification System (DISS 2.0). • Develop system capabilities for emerging Office of the Under Secretary of Defense, Intelligence requirements. • Support extension of DISS Operations and Sustainment activities to Executive Branch personnel security adjudication.			
Accomplishments/Planned Programs Subtotals	-	-	4.257

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

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Defense Information Systems Agency

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	215,982	209,712		209,712	251,852		251,852
Total Research, Development, Test & Evaluation	215,982	209,712		209,712	251,852		251,852

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
System Development And Demonstration	39,170	32,682		32,682	7,600		7,600
Management Support					15,336		15,336
Operational System Development	176,812	177,030		177,030	228,916		228,916
Total Research, Development, Test & Evaluation	215,982	209,712		209,712	251,852		251,852
Summary Recap of FYDP Programs							
General Purpose Forces	62,902	63,341		63,341	57,501		57,501
Intelligence and Communications	128,150	127,983		127,983	194,351		194,351
Research and Development	24,930	18,388		18,388			
Total Research, Development, Test & Evaluation	215,982	209,712		209,712	251,852		251,852

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
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R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Defense Information Systems Agency	215,982	209,712		209,712	251,852		251,852
Total Research, Development, Test & Evaluation	215,982	209,712		209,712	251,852		251,852

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	24,930	18,388		18,388				U
132	0303141K	Global Combat Support System	05	14,240	14,294		14,294	7,600		7,600	U
		System Development And Demonstration		39,170	32,682		32,682	7,600		7,600	
172	0305172K	Combined Advanced Applications	06					15,336		15,336	U
		Management Support						15,336		15,336	
190	0208045K	C4I Interoperability	07	62,902	63,341		63,341	57,501		57,501	U
192	0301144K	Joint/Allied Coalition Information Sharing	07	3,931	1,845		1,845	5,935		5,935	U
196	0302016K	National Military Command System-Wide Support	07	924	963		963	575		575	U
197	0302019K	Defense Info Infrastructure Engineering and Integration	07	12,680	10,120		10,120	18,041		18,041	U
198	0303126K	Long-Haul Communications - DCS	07	26,209	36,830		36,830	13,994		13,994	U
199	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	12,671	13,735		13,735	12,206		12,206	U
204	0303150K	Global Command and Control System	07	30,536	21,503		21,503	24,438		24,438	U
205	0303153K	Defense Spectrum Organization	07	13,614	20,298		20,298	13,197		13,197	U
206	0303170K	Net-Centric Enterprise Services (NCES)	07	3,774	444		444				U
207	0303228K	Joint Information Environment (JIE)	07					2,789		2,789	U
209	0303430K	Federal Investigative Services Information Technology	07					75,000		75,000	U
210	0303610K	Teleport Program	07	3,158	1,736		1,736	657		657	U
215	0305103K	Cyber Security Initiative	07	3,085	2,976		2,976	1,553		1,553	U

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
226	0305208K	Distributed Common Ground/Surface Systems	07	3,328	3,239		3,239	3,030		3,030	U
		Operational System Development		176,812	177,030		177,030	228,916		228,916	
Total Research, Development, Test & Eval, DW				215,982	209,712		209,712	251,852		251,852	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Defense Information Systems Agency
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	24,930	18,388		18,388				U
132	0303141K	Global Combat Support System	05	14,240	14,294		14,294	7,600		7,600	U
	System Development And Demonstration			39,170	32,682		32,682	7,600		7,600	
172	0305172K	Combined Advanced Applications	06					15,336		15,336	U
	Management Support							15,336		15,336	
190	0208045K	C4I Interoperability	07	62,902	63,341		63,341	57,501		57,501	U
192	0301144K	Joint/Allied Coalition Information Sharing	07	3,931	1,845		1,845	5,935		5,935	U
196	0302016K	National Military Command System-Wide Support	07	924	963		963	575		575	U
197	0302019K	Defense Info Infrastructure Engineering and Integration	07	12,680	10,120		10,120	18,041		18,041	U
198	0303126K	Long-Haul Communications - DCS	07	26,209	36,830		36,830	13,994		13,994	U
199	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	12,671	13,735		13,735	12,206		12,206	U
204	0303150K	Global Command and Control System	07	30,536	21,503		21,503	24,438		24,438	U
205	0303153K	Defense Spectrum Organization	07	13,614	20,298		20,298	13,197		13,197	U
206	0303170K	Net-Centric Enterprise Services (NCES)	07	3,774	444		444				U
207	0303228K	Joint Information Environment (JIE)	07					2,789		2,789	U
209	0303430K	Federal Investigative Services Information Technology	07					75,000		75,000	U
210	0303610K	Teleport Program	07	3,158	1,736		1,736	657		657	U
215	0305103K	Cyber Security Initiative	07	3,085	2,976		2,976	1,553		1,553	U

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

Defense Information Systems Agency
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
226	0305208K	Distributed Common Ground/Surface Systems	07	3,328	3,239		3,239	3,030		3,030	U
	Operational System Development			176,812	177,030		177,030	228,916		228,916	
Total Defense Information Systems Agency				215,982	209,712		209,712	251,852		251,852	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 09:07:23

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132	05	0303141K	Global Combat Support System	Volume 5 - 111

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
172	06	0305172K	Combined Advanced Applications	Volume 5 - 121

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
190	07	0208045K	C4I Interoperability	Volume 5 - 123
192	07	0301144K	Joint/Allied Coalition Information Sharing	Volume 5 - 143

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

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196	07	0302016K	National Military Command System-Wide Support	Volume 5 - 155
197	07	0302019K	Defense Info. Infrastructure Engineering and Integration	Volume 5 - 163
198	07	0303126K	Long-Haul Communications - DCS	Volume 5 - 183
199	07	0303131K	Minimum Essential Emergency Communications Network (MEECN)	Volume 5 - 207
204	07	0303150K	Global Command and Control System	Volume 5 - 219
205	07	0303153K	Defense Spectrum Organization	Volume 5 - 233
206	07	0303170K	Net-Centric Enterprise Services (NCES)	Volume 5 - 245
207	07	0303228K	Joint Information Environment	Volume 5 - 257
209	07	0303430K	Federal Investigative Services Information Technology	Volume 5 - 265
210	07	0303610K	Teleport Program	Volume 5 - 271
215	07	0305103K	Cybersecurity Initiative	Volume 5 - 287
226	07	0305208K	Distributed Common Ground/Surface Systems	Volume 5 - 293

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C4I Interoperability	0208045K	190	07	Volume 5 - 123
Combined Advanced Applications	0305172K	172	06	Volume 5 - 121
Cybersecurity Initiative	0305103K	215	07	Volume 5 - 287
Defense Info. Infrastructure Engineering and Integration	0302019K	197	07	Volume 5 - 163
Defense Spectrum Organization	0303153K	205	07	Volume 5 - 233
Distributed Common Ground/Surface Systems	0305208K	226	07	Volume 5 - 293
Federal Investigative Services Information Technology	0303430K	209	07	Volume 5 - 265
Global Combat Support System	0303141K	132	05	Volume 5 - 111
Global Command and Control System	0303150K	204	07	Volume 5 - 219
Joint Information Environment	0303228K	207	07	Volume 5 - 257
Joint/Allied Coalition Information Sharing	0301144K	192	07	Volume 5 - 143
Long-Haul Communications - DCS	0303126K	198	07	Volume 5 - 183
Minimum Essential Emergency Communications Network (MEECN)	0303131K	199	07	Volume 5 - 207
National Military Command System-Wide Support	0302016K	196	07	Volume 5 - 155
Net-Centric Enterprise Services (NCES)	0303170K	206	07	Volume 5 - 245
Teleport Program	0303610K	210	07	Volume 5 - 271

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604764K *I Advanced IT Services Joint Program Office (AITS-JPO)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	155.989	24.930	18.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	199.307
T26: *Leading Edge Pilot Information Technology*	155.989	24.930	18.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	199.307

A. Mission Description and Budget Item Justification

Advanced IT Services Joint Program Office (AITS-JPO) identifies and integrates new and mature commercial information technology (IT) and advanced operational concepts into net-centric battlespace capabilities to access and exchange critical information; exploit opportunities to enhance current force capabilities; and project future force IT requirements. AITS-JPO supports preparing for future joint force and coalition initiatives through developing and integrating a full range of data services and advanced IT applications to support cooperative activities between the US and its coalition partners. These emergent capabilities are technologies that can be rapidly infused into existing tools.

The program uses three key mechanisms to streamline the process of fielding emergent requirements: (1) Joint Capability Technology Demonstrations (JCTDs) with the Office of the Secretary of Defense (OSD)/Combatant Commands (COCOMs)/Services/Agency; (2) Joint Ventures with COCOMs/Program of Record (POR); and (3) Risk Mitigation Pilots with POR/Community of Interest. The JCTD process aligns with the revised Joint Capability Integration and Development System process, developed by the Joint Chiefs of Staff, by adapting technology and concept solutions to meet pressing warfighter needs. OSD approves new JCTDs annually and on a rolling start basis. Defense Information Systems Agency participates in both a technical and transition manager role. The JCTDs and the Joint Ventures and risk mitigation pilots use a teaming approach thereby sharing costs and reducing the risk to individual organizations.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	25.429	23.424	24.747	-	24.747
Current President's Budget	24.930	18.388	0.000	-	0.000
Total Adjustments	-0.499	-5.036	-24.747	-	-24.747
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.499	-0.036	-24.747	-	-24.747

Change Summary Explanation

The decrease of -$0.499 in FY 2015 is due to a decrease in civilian pay execution.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604764K *I Advanced IT Services Joint Program Office (AITS-JPO)*

The decrease of -$5.036 in FY 2016 is due to agency efficiencies and reductions to overhead support contracted labor.

The decrease of -$24.747 in FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T26: *Leading Edge Pilot Information Technology*	155.989	24.930	18.388	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	199.307
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Advanced IT Services Joint Program Office (AITS-JPO) identifies and integrates Leading Edge commercial information technology (IT) and advanced operational concepts into net-centric battlespace capabilities to access and exchange critical information; exploit opportunities to enhance current force capabilities; and project future force IT requirements. These Leading Edge products provide the Department of Defense (DoD) and National Senior Leaders, (e.g., the President of the United States, Secretary of Defense, Chairman of the Joint Chiefs of Staff, Combatant Commanders, as well as inter-agency participants) with critical focus on long-term collaboration, planning and information sharing. The Leading Edge technology pilots support future joint and coalition initiatives by developing and integrating a range of data services and advanced IT applications. These emergent capabilities are technologies that can be rapidly infused into existing tools for use by the US and coalition partners.

Program investments in advanced technology benefit strategic and tactical users in the intelligence, warfighting and business domains by providing them with reliable, persistent collaboration, and networking technologies including computing-on-demand to reduce the need to replicate data or services at the point of consumption. Investments also provide support for virtual end-user environments and semantic search capabilities which enhance the decision-making process. These capabilities provide the warfighter with technical superiority and to achieve interoperability and integration, while working in concert with joint, allied and coalition forces to effectively counter terrorism and enhance homeland security defense.

The program is further divided into major subprogram areas: Command and Control (C2) and Combat Support (CS), Information Sharing (IS), Network Infrastructure (NI), Network Operations (NetOps), Cyber Threat Discovery and Program Management Support.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Command and Control (C2) and Combat Support (CS)	3.315	2.524	0.000
Description: Command and Control (C2) and Combat Support (CS) ***FY 2015 Accomplishments:*** Provided engineering and technical support to COCOMs by assisting them in development to expose, compile and visualize operational assets, mission threads and data to accomplish their objectives. Participated in the COCOM Science and Technology. Integrated Priorities List (STIPLs) meetings to identify and address COCOM technology requirements, DISA equities and to ensure the capabilities were identified and planned. Provided engineering expertise to enable and institutionalize common standards, interfaces, and architectures for use by Department of Defense (DoD) programs, initiatives and efforts.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Multi Domain Simultaneous Access Virtual Environment (MD-SAVE): Provided the warfighter a solution that reduces the overall networking infrastructure. By developing a single workstation, with a rich user experience, users were able to access multiple domains utilizing one wire while maintaining security separation with unique features that reduce Size, Weight, and Power (SWaP) and increase agility. Information Volume & Velocity (IV2): Web-based application that equips the user with a US Government (USG) standardized method for obtaining Open Source and Social Media data. Assistant SecDef declared IV2 to have military utility. ***FY 2016 Plans:*** CTO will continue to provide engineering, assessment and technical support to COCOMs, Services and DISA by critically analyzing C2 requirements; conducting technology and operational assessments; applying engineering best practices to expedite delivery of capabilities; and leveraging and integrating existing DISA and DoD C2 capabilities. Will participate in the Deputy Under Secretary of Defense's Rapid Fielding Directorate to provide engineering support in the development, implementation, and transition of emerging technologies and Emergent Capability Technology Demonstrations (ECTDs) that align with COCOM requirements and DISA's Strategic Planning Guidance. The decrease of -$0.791 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners. ***FY 2017 Plans:*** The JCTD program at DISA has been disestablished as a result of Agency efficiencies. The decrease of -$2.524 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.			
Title: Information Sharing (IS)	4.053	3.177	0.000
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Provided engineering support to modify open source applications in support of DoD requirements, and expose COCOM data to the enterprise. Explored, designed, and took advantage of of gains achieved in widget and application development and in providing the warfighter an application store. Engineering and Information Assurance capabilities were provided to DISA on Cloud Broker and DISA's computing service offerings. Provided engineering and technology design/insertion, systems engineering, computer science engineering and electronics engineering in support of the DoD Information Network (DODIN) end-to-end engineering and enterprise services. ***FY 2016 Plans:*** CTO will continue to provide engineering support and assured and ready access to information from multiple devices under diverse conditions to the COCOMs, Services and Agencies through JIE participation and analyzing DoD information requirements. Continue providing engineering and Information Assurance capabilities to DISA on Cloud Broker, Mil Cloud and DISA's computing service offerings. Will provide engineering investigation and support for desktop virtualization, thin client environments, mobility service and enterprise service. The decrease of -$0.876 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners. ***FY 2017 Plans:*** The JCTD program at DISA has been disestablished as a result of Agency efficiencies. The decrease of -$3.177 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.			
Title: Network Infrastructure (NI) ***Description:*** Network Infrastructure (NI) ***FY 2015 Accomplishments:*** Provided COCOMs and Services engineering expertise to enable and institutionalize common technical standards, interfaces, design patterns and enterprise architectures that assure “built-in” interoperability of programs, initiatives and efforts. Provided the engineering support to fulfill the requirement to maintain engineering capabilities that are innovative, transformational, joint and that cut across the strategic, operational and tactical continuum. Provided the capacity to perform technology assessments,	1.660	1.316	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
develop prototypes and interoperable solutions that leverage DISA's shared enterprise services and designs, as well as provide end-to-end engineering and troubleshooting support. Continued technological engagements with COCOMs and Services, which will foster a better understanding of warfighter current and future requirements and assist DoD to better align current and future architectures, engineering expertise, and solutions. Engagement and technology development with COCOMs served as a primary risk reduction approach to meet capability gaps. Dreamer: Implemented a cloud computing architecture that is accessible from corporate network to allow the workforce to conduct app development and software experimentation. ***FY 2016 Plans:*** CTO will continue to provide COCOMs and Services engineering expertise to enable and institutionalize common technical standards, interfaces, design patterns and enterprise architectures that assure "built-in" interoperability of programs, initiatives and efforts. CTO will investigate and expand DOD's Identity Management efforts to allow access to desktops from anywhere in the department. Will participate with Deputy Under Secretary of Defense's Rapid Fielding Directorate to provide engineering support in the development, implementation, and transition of emerging technologies and Emergent Capability Technology Demonstrations (ECTDs) that align with COCOM requirements. The decrease of -$0.344 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners. ***FY 2017 Plans:*** The JCTD program at DISA has been disestablished as a result of Agency efficiencies. Disestablishes pay, benefits, travel and other program costs, including contracting support. The decrease of -$1.316 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.			
Title: Network Operations (NetOps)	0.967	0.000	0.000
FY 2015 Accomplishments: Provided engineering support for the development of web applications supporting high priority COCOM requirements for dynamic country-to-country data exchanges. Provided engineering support to DISA in the development of a storefront for widgets and web applications. Provided engineering and Information Assurance capability supporting DoD CIO's Cloud Broker and enterprise computing services. Conducted exploration of emerging technologies that support Web 3.0 environments and the improvement of			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
command, control, communications, collaboration and socialization among DoD seniors, warfighters, and across the warfighting, intelligence, and business domains. ***FY 2016 Plans:*** The decrease of -$0.967 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners. ***FY 2017 Plans:*** N/A			
Title: Program Management Support ***FY 2015 Accomplishments:*** Continued core program management support to manage financial accounts, overseeing information assurance activities, assisting in contract administration, and providing technical assistance. Continued to provide asset management, quality assurance and business line improvement, information assurance oversight, technical oversight and assistance, web support and application hosting. Risk Rating Framework (RRF) for Mobile Applications: Developed a mobile app vetting framework to automate and streamline the app vetting process. Quick-Win Concept Demonstrator (QWCD): Pilot program showing the use of Dell Tablets with all the current capabilities in use by existing laptops connected to the DISANet. Accountable Asset Efficiency Initiative (AAEI): Eliminate or reduce manual re-keying of vendor supplied Extended Product List (i.e., Bill of Material) and automate initial data capital asset input into the Defense Property Accountability System (DPAS). ***FY 2016 Plans:*** CTO will continue to provide core program management support and a variety of engineering, technical innovation, information services, information assurance, and integration engineering. The decrease of -$3.564 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability	14.935	11.371	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners. ***FY 2017 Plans:*** The JCTD program at DISA has been disestablished as a result of Agency efficiencies. The decrease of -$10.732 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.			
Accomplishments/Planned Programs Subtotals	24.930	18.388	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The program accomplishes its mission through a combination of strategies focused on operations, technical integration, program management, and financial tracking. Market research during the acquisition process includes a review of DISA contracts, other DoD contract vehicles, and other 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. It 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. CTO reviews existing contract vehicles and the number of contracts to minimize administrative overhead. Instead of individual contracts for program management, business line improvement, asset management, and financial management, there is now one small business program services contract that provides services across DISA.

E. Performance Metrics

OSD holds program reviews twice a year to review cost, schedule, performance and delivery. For JCTDs/ECTDs, the program office develops an Implementation Directive and Management Plan. These guidance documents outline the project objectives, schedule, and funding for the JCTD/ECTDs. Military utility will be assessed by each JCTD/ECTD to develop and document the detailed objectives. The Operational Sponsor (a COCOM) will evaluate the process and measure results. For technology investigation and piloting, DISA CTO uses standard operating

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
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procedures for identifying objectives and metrics. Key metrics used include: utility of technology, time to delivery of technologies to the field, percentage of improvement in transition of technologies, and percentage of improvement in collaborative efforts with other Science and Technology organizations. See below for specific metrics:

1. Metric: JCTDs/ECTDs provide rapid capabilities to the warfighter that address urgent COCOM needs. Metrics include: time of delivery of technology to the field and utility of technology.

Measure/Goal: Number of approved JCTDs/ECTDs with CTO as the Technical Manager and the number of JCTDs/ECTDs pending approval with CTO as TM.
FY15 Actual: 3 Approved (2 completed, 1 dropped)
FY16 Target: 3-5 potential ECTDs/ETs (evaluating about 8 projects which may or may not become an ECTD/ET)
FY17 Target: N/A

2. Metric: Infrastructure as a Service (IaaS)/Dreamer - Implement a cloud computing infrastructure for app development, software experimentation, and pilot evaluation accessible from the corporate network. Low cost solution to help foster an innovative environment where our modern workforce can develop mobile and web apps and conduct software experimentations to meet mission requirements.

FY15 Actual: 73 users
FY16 Target: 20 Additional Users - 5 each quarter
FY17 Target: N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	MIPR	SPAWAR SSC : Charleston, SC	16.570	-		-		-		-		-	-	-	16.570
Product Development 2	C/CPFF	SAIC (TO 50 & 57) : Arlington, VA	19.691	-		-		-		-		-	-	-	19.691
Product Development 4	SS/FP	JACKBE : Chevy Chase, MD	6.388	-		-		-		-		-	-	-	6.388
Product Development 4	C/CPFF	SOLERS : Arlington, VA	10.859	1.400	Jun 2015	1.073	Jun 2016	-		-		-	Continuing	Continuing	Continuing
Product Development 5	SS/ FPEPA	LLH & Associates : Toano, VA	2.568	1.497	Jul 2015	-		-		-		-	Continuing	Continuing	4.602
Product Development 6	SS/FFP	Permuta Technologies Inc. : Arlington, VA	0.102	-		-		-		-		-	Continuing	Continuing	0.258
Product Development 7	SS/CPFF	BOOZ Allen Hamilton Inc. : McLean, VA	1.082	-		-		-		-		-	Continuing	Continuing	3.461
Product Development 8	SS/FFP	GCS : Avondale, LA	0.494	-		-		-		-		-	-	-	0.494
Product Development 9	SS/FFP	Consulting Solutions : Jackson, WY	0.400	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 10	SS/FFP	IBM : Bethesda, MD	1.174	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 11	C/CPFF	CORONET : Philadelphia, PA	0.300	-		0.100	Nov 2015	-		-		-	Continuing	Continuing	Continuing
Product Development 12	C/FFP	MD SAVE : Philadelphia, PA	0.530	-		0.824	Jul 2016	-		-		-	Continuing	Continuing	Continuing
		Subtotal	60.158	2.897		1.997		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support 1	C/FFP	RAYTHEON : Falls Church, VA	8.077	-		-		-		-		-	Continuing	Continuing	9.425
Support 2	C/FFP	TWM : Falls Church, VA	3.554	1.500	Dec 2014	-		-		-		-	Continuing	Continuing	5.856
Support 3	C/FFP	Various : Various	4.646	-		-		-		-		-	Continuing	Continuing	1.692
Support 4	C/FP	Science & Technology Associates, Inc. : Arlington, VA	2.685	-		-		-		-		-	Continuing	Continuing	4.271
Support 5	SS/FFP	MARKLOGIC : San Carlos, CA	0.202	-		-		-		-		-	Continuing	Continuing	0.202
Support 6	C/FPRP	Lincoln Labs : Lexington, MA	1.650	1.595	Feb 2015	0.300	Nov 2015	-		-		-	Continuing	Continuing	Continuing
Support 7	C/FFP	Various Cyber Pilots : Various	15.000	-		-		-		-		-	-	-	15.000
Support 8	C/FFP	Cyber Security Services : Various	1.338	-		-		-		-		-	Continuing	Continuing	2.838
Support 9	C/CPFF	TSC : TBD	-	1.436	Apr 2015	-		-		-		-	Continuing	Continuing	1.935
Support 10	SS/FFP	XLM Repository : Various	-	-		0.200	Aug 2016	-		-		-	Continuing	Continuing	Continuing
Support 11	C/FFP	Tapestry Technologies : Chambersburg, PA	0.890	0.650	Apr 2015	-		-		-		-	Continuing	Continuing	Continuing
Support 12	C/CPFF	TIE NEMS: B&D Consulting : Hagerstown, MD	2.000	1.449	Jul 2015	1.555	Jul 2016	-		-		-	Continuing	Continuing	Continuing
Support 13	C/FFP	TBD : TBD	-	-		0.000	Oct 2015	-		-		-	Continuing	Continuing	Continuing
Support 14	C/FFP	ARDEC: Science and Technology Associates : Arlington, VA	0.000	0.000		0.000		-		-		-	-	-	-
Support 15	C/FFP	IT Consulting Partners, Limited	0.976	1.003	Jan 2015	-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	Project (Number/Name) T26 / *Leading Edge Pilot Information Technology*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Liability Company : Jackson, WY													
		Subtotal	41.018	7.633		2.055		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services 1	FFRDC	MITRE : McLean, VA	4.136	1.600	Oct 2014	0.400	Oct 2015	-		-		-	Continuing	Continuing	Continuing
Management Services 2	C/CPFF	Keylogic : Morgantown, WV	4.347	-		-		-		-		-	Continuing	Continuing	4.121
Program Management Civilian Pay	Various	Various : Various	44.768	11.530	Oct 2014	12.520	Oct 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Management Services 3	Various	Various : Various	0.309	-		0.416	Nov 2015	-		-		-	Continuing	Continuing	Continuing
Management Services	C/FFP	PMPC : Various	1.253	1.270	Sep 2015	1.000	Sep 2016	-		-		-	Continuing	Continuing	Continuing
		Subtotal	54.813	14.400		14.336		0.000		-		0.000	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	155.989	24.930		18.388		0.000		-		0.000	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

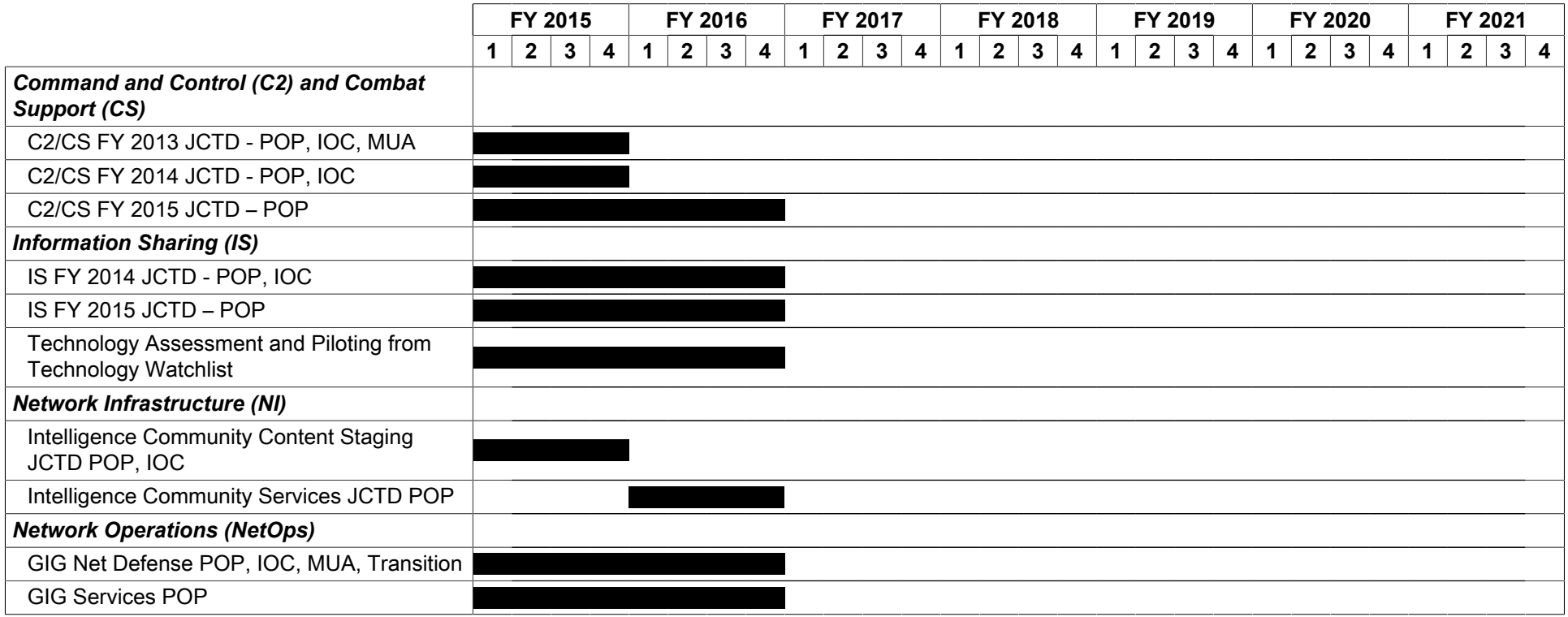


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604764K / *Advanced IT Services Joint Program Office (AITS-JPO)*	**Project (Number/Name)** T26 / *Leading Edge Pilot Information Technology*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Command and Control (C2) and Combat Support (CS)				
C2/CS FY 2013 JCTD - POP, IOC, MUA	1	2015	4	2015
C2/CS FY 2014 JCTD - POP, IOC	1	2015	4	2015
C2/CS FY 2015 JCTD – POP	1	2015	4	2016
Information Sharing (IS)				
IS FY 2014 JCTD - POP, IOC	1	2015	4	2016
IS FY 2015 JCTD – POP	1	2015	4	2016
Technology Assessment and Piloting from Technology Watchlist	1	2015	4	2016
Network Infrastructure (NI)				
Intelligence Community Content Staging JCTD POP, IOC	1	2015	4	2015
Intelligence Community Services JCTD POP	1	2016	4	2016
Network Operations (NetOps)				
GIG Net Defense POP, IOC, MUA, Transition	1	2015	4	2016
GIG Services POP	1	2015	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	230.671	14.240	14.294	7.600	-	7.600	7.600	7.600	7.600	7.600	Continuing	Continuing
CS01: *Global Combat Support System*	230.671	14.240	14.294	7.600	-	7.600	7.600	7.600	7.600	7.600	Continuing	Continuing

Program MDAP/MAIS Code: 483

A. Mission Description and Budget Item Justification

Global Combat Support System - Joint (GCSS-J), is a key enabler for achieving Focused Logistics and is essential during peace, contingency, crisis, and war in support of the joint warfighter across the full range of military operations. GCSS-J, the Logistics System of Record, provides a Joint Logistics Common Operational Picture to ensure the right personnel, equipment, supplies, and support are in the right place at the right time and in the right quantities to mobilize, move, and sustain all elements of operating forces within a theater or operational area.

GCSS-J gathers data from authoritative sources to provide a fused, integrated, near real-time, multidimensional view of combat support and combat service support across joint capability areas. These efforts provide situational awareness of the battlespace and logistics pipeline (e.g., supply, deployment and distribution, engineering, etc.). Using GCSS-J, the joint logistics warfighter no longer needs to log into multiple legacy systems and manually gather data to compile reports. GCSS-J provides real time actionable information in the form of watchboards (e.g., fuels and munitions watchboards) and near real time information in the form of reports and mapping visualizations.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	14.241	15.158	15.301	-	15.301
Current President's Budget	14.240	14.294	7.600	-	7.600
Total Adjustments	-0.001	-0.864	-7.701	-	-7.701
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.001	-0.864	-7.701	-	-7.701

Change Summary Explanation

The FY 2015 decrease of -$0.001 is attributable to reduced development efforts.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*

The FY 2016 decrease of -$0.864 is a attributable to a reduction in the overall pace and scope of GCSS-J development efforts to meet Joint Staff logistics operational needs.

The FY 2017 decrease of -$7.701 is the result of a reduction in the number of GCSS development efforts required to meet Joint Staff logistics operational needs while continuing to meet current functional priorities of the joint logistics community, as documented by Joint Staff requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0303141K / *Global Combat Support System*	Project (Number/Name) CS01 / *Global Combat Support System*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
CS01: *Global Combat Support System*	230.671	14.240	14.294	7.600	-	7.600	7.600	7.600	7.600	7.600	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Global Combat Support System – Joint (GCSS-J) provides the warfighter with a single, end-to-end capability to manage and monitor personnel and equipment through the mobilization process. GCSS-J, the Logistics' System of Record, provides a Joint Logistics Common Operational Picture (JLogCOP), ensuring the right personnel, equipment, supplies, and support are in the right place, at the right time, and in the right quantities across the full spectrum of military operations.

GCSS-J gathers data from authoritative sources to provide fused, integrated, near real-time multidimensional view of combat support and combat service support across joint capability areas. These efforts provide situational awareness of the battlespace and logistics pipeline (e.g., Supply, Deployment and Distribution, Engineering, etc.). Using GCSS-J, the joint logistics warfighter no longer needs to log into multiple legacy systems and manually gather data to compile reports. GCSS-J provides real-time in the form of reports and mapping visualizations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Global Combat Support System-Joint	14.240	14.294	7.600
Description: GCSS-J is a key enabler for achieving Focused Logistics and is essential during peace, contingency, crisis, and war in support of the joint warfighter across the full range of military operations. GCSS-J, the Logistics System of Record, provides a Joint Logistics Common Operational Picture (LogCOP) to ensure the right personnel, equipment, supplies, and support are in the right place at the right time and in the right quantities to mobilize, move, and sustain all elements of operating forces within a theater or operational area.			
FY 2015 Accomplishments: GCSS-J met the functional requirements of the joint logistics community, which were approved and prioritized by Joint Staff (J4). The program leveraged the Enterprise Widget Storefront (EWS) Ozone Widget Framework(OWF) to develop widgets to support Combatant Commands. The program provided widgets and new capability development using integrated data sources via web services which resulted in a fused, integrated, near real-time view of combat support and combat service support throughout the battlespace and the logistics pipeline through interoperability and connectivity of information system.			
FY 2016 Plans: Will focus on simplifying the architecture as part of our drive toward virtualization which will result in a more efficient system with greater reliability, better through-put, and better performance. Additionally, GCSS-J will continue to meet the functional requirements which will be approved and prioritized by Joint Staff (J4). Will continue to leverage the EWS OWF to develop widgets			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
to support Combatant Commands. Finally, will continue to provide widgets and new capability development using integrated data sources via web services which will provide a fused, integrated, near real-time view of combat support and combat service support throughout the battlespace and the logistics pipeline through interoperability and connectivity of information system. The increase of +$0.054 from FY 2015 to FY 2016 will allow the program to satisfy additional Joint Staff operational needs in response to on-going real-world events. ***FY 2017 Plans:*** GCSS-J will continue to meet the functional requirements of the joint logistics community, as approved and prioritized by Joint Staff (J4). The Program will continue to leverage a future framework to develop widgets to support Combatant Commands. The focus will be to provide new capability development using integrated data sources via web services which will provide a fused, integrated, near real-time view of combat support and combat service support throughout the battlespace and the logistics pipeline through interoperability and connectivity of information system. The FY 2016 to FY 2017 decrease of - $6.694 is the result of a reduction in the number of GCSS development efforts required to meet Joint Staff logistics operational needs while continuing to meet current functional priorities of the joint logistics community, as documented by Joint Staff requirements.			
Accomplishments/Planned Programs Subtotals	14.240	14.294	7.600

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/PE 0303141K: *O&M, DW*	13.059	13.735	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

The GCSS-J Program Management Office (PMO) uses various contract types, employs large and small contractors, and is focused on achieving agency socio-economic goals and incorporating DoD acquisition reform initiatives in purchasing. The PMO 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. The PMO evaluates performance by conducting thorough Post-award Contract Reviews, monthly Contract Performance Reviews, and bi-monthly In-Process Reviews.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

The PMO uses a Statement of Objectives (SOO) for development efforts rather than the traditional Statement of Work, as it provides potential offerors flexibility to develop cost-effective solutions and the opportunity to propose innovative alternatives to meet GCSS-J requirements. By stating the requirements in a SOO, the contractor can produce a technical solution methodology to deliver leading edge technology to the warfighter.

E. Performance Metrics

GCSS-J fields capabilities based on functional priorities of the Combatant Command 129 Requirements Document as approved and prioritized by the functional sponsor, Joint Staff J4. These requirements and goals are translated into releases with specific capabilities, which have established cost, schedule, and performance parameters approved by the DISA's Component Acquisition Executive/Milestone Decision Authority.

Metrics and requirements are routinely gathered by the GCSS-J PMO. The metrics from the strategic server sites are analyzed by the PMO to ensure that operational mission threads continue to be met and if system enhancement/capabilities are of benefiting the user. Future capabilities include tools that allow GCSS-J to refine and enhance the type of performance metrics that can be gathered and analyzed. These tools become increasingly important as GCSS-J continues to integrate additional data sources and external applications, which allows GCSS-J to continue to transition to a Service Oriented Architecture and directly supports DoD's net-centric vision of exposing and consuming web services. As GCSS-J usage increases and new capabilities are fielded, performance metrics will ensure that the system is meeting user requirements.

1. Mission and Business Results and Strategic National and Theater Defense

FY 2015 (Actual) The KPPs, found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Data will be gathered from the First Look Site during development and from surveys once the capability is deployed. FY15 Target: 95%; Metric was met.

FY 2016 (Estimate) The KPPs, found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Data will be gathered from the First Look Site during development and from surveys once the capability is deployed. FY16 Target: 95%

FY 2017 (Estimate) The KPPs, found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Data will be gathered from the First Look Site during development and from surveys once the capability is deployed. FY16 Target: 95%

2. Customer Results and Customer Satisfaction

FY 2015 (Actual) Help Desk KPIs define the baseline measure to evaluate customer satisfaction and provide a service desk assessment; KPI threshold is 80%. Data will be gathered from the strategic server site, DECC-Montgomery, and from user surveys. FY15 Target: 80%; Metric was met.

FY 2016 (Estimate) Help Desk KPIs define the baseline measure to evaluate customer satisfaction and provide a service desk assessment; KPI threshold is 80%. Data will be gathered from the strategic server site, DECC-Montgomery, and from user surveys. FY16 Target: 80%

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

FY 2017 (Estimate) Help Desk KPIs define the baseline measure to evaluate customer satisfaction and provide a service desk assessment; KPI threshold is 80%. Data will be gathered from the strategic server site, DECC-Montgomery, and from user surveys. FY16 Target: 80%

3. Processes and Activities and Program Monitoring

FY 2015 (Actual) Baseline Measure – Deployed Increment 8, v8.0 in 3rd Quarter 2015; Metric was met.

FY 2016 (Estimate) Baseline Measure – To deploy Increment 8, v8.1 in 2nd Quarter 2016.

FY 2017 (Estimate) Baseline Measure – To deploy Increment 8, v8.2 in 3rd Quarter 2017.

4. Technology and System Development

FY 2015 (Actual) Baseline Measure is the ability to provide current and accurate information from the ADS at a 95% effectiveness level. System Administrators at the Defense Enterprise Computing Centers will gather data from system logs to validate effectiveness. FY15 Target: 95%; Target was met.

FY 2016 (Estimate) Baseline Measure is the ability to provide current and accurate information from the ADS at a 95% effectiveness level. System Administrators at the Defense Enterprise Computing Centers will gather data from system logs to validate effectiveness. FY16 Target: 95%

FY2017 (Estimate) Baseline Measure is the ability to provide current and accurate information from the ADS at a 95% effectiveness level. System Administrators at the Defense Enterprise Computing Centers will gather data from system logs to validate effectiveness. FY16 Target: 95%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	C/T&M	Enterworks : Sterling, VA	8.745	-		-		0.000		-		0.000	0.000	8.745	8.745
Product Development 2	C/T&M	WFI (DSI) : Manassas, VA	4.125	-		-		0.000		-		0.000	0.000	4.125	4.125
Product Development 3	C/CPAF	NGIT : Herndon, VA	115.874	11.975	Mar 2015	12.906	Mar 2016	6.192	Mar 2017	-		6.192	Continuing	Continuing	Continuing
Product Development 4	C/T&M	SAIC : Falls Church, VA	17.061	-		-		0.000		-		0.000	0.000	17.061	17.061
Product Development 5	C/FFP	NGIT, : Reston, VA	21.669	-		-		0.000		-		0.000	0.000	21.669	21.669
Product Development 6	SS/FFP	UNISYS, : Falls Church, VA	15.751	0.721	Apr 2015	-		0.000		-		0.000	Continuing	Continuing	Continuing
Product Development 7	MIPR	FGM, : Reston, VA	5.482	-		-		0.000		-		0.000	0.000	5.482	5.482
Product Development 8	SS/FFP	Merlin, : McLean, VA	1.664	-		-		0.000		-		0.000	0.000	1.664	1.664
Product Development 9	MIPR	JDTC, : Ft. Eustis, VA	2.423	-		-		0.000		-		0.000	0.000	2.423	2.423
Product Development 10	MIPR	CSC, : Norfolk, VA	0.300	-		-		0.000		-		0.000	0.000	0.300	0.300
		Subtotal	193.094	12.696		12.906		6.192		-		6.192	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 1	C/CPFF	COMTEK, : Sterling,VA	3.902	-		-		0.000		-		0.000	0.000	3.902	3.902
Test & Evaluation 2	MIPR	SSO, : Montgomery	0.500	-		-		0.000		-		0.000	0.000	0.500	0.500
Test & Evaluation 3	MIPR	DIA : WDC	2.889	0.436	Nov 2014	0.448	Sep 2016	0.461	Sep 2017	-		0.461	Continuing	Continuing	Continuing
Test & Evaluation 4	C/CPFF	Pragmatics : Pragmatics	1.684	-		-		0.000		-		0.000	0.000	1.684	1.684
Test & Evaluation 5	C/CPFF	AAC, Inc., : Vienna, VA	2.790	-		-		0.000		-		0.000	0.000	2.790	2.790
Test & Evaluation 6	MIPR	JITC, : Ft. Huachuca, AZ	5.358	0.874	Nov 2014	0.700	Oct 2015	0.700	Oct 2016	-		0.700	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 7	MIPR	STRATCOM (DAA) : Bolling AFB, DC	0.458	0.164	Dec 2014	0.167	May 2016	0.172	Jul 2016	-		0.172	Continuing	Continuing	Continuing
Test & Evaluation 8	MIPR	DISA (TE LAB Support) : Fort Meade, MD	1.192	0.070	Jul 2015	0.073	Oct 2015	0.075	Oct 2016	-		0.075	Continuing	Continuing	Continuing
		Subtotal	18.773	1.544		1.388		1.408		-		1.408	-	-	-

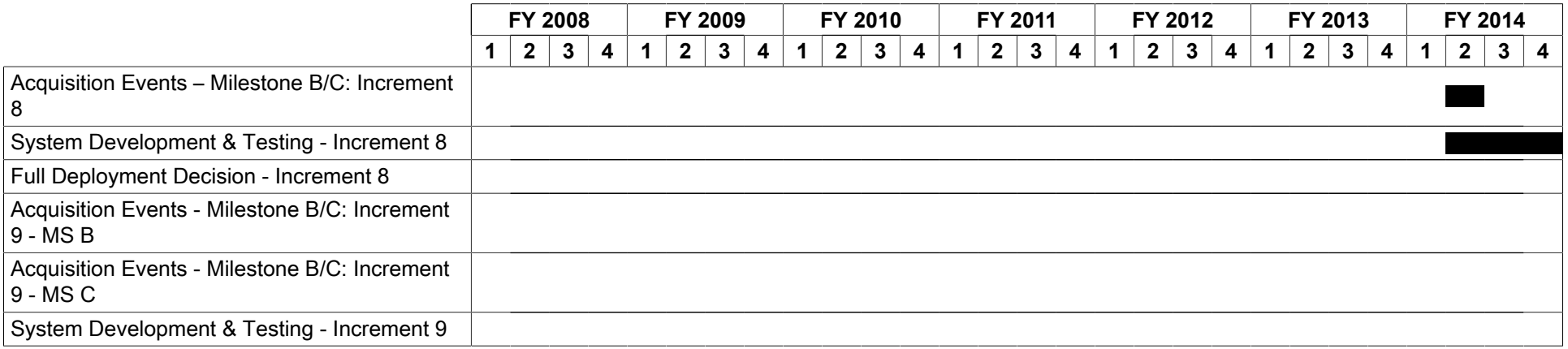
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services 1	FFRDC	MITRE, : Vienna, VA	16.934	-		-		-		-		-	0.000	16.934	16.934
Management Services 2	SS/CPFF	UMD, : Eastern Shore, MD	1.021	-		-		-		-		-	0.000	1.021	1.021
Management Services 3	MIPR	IDA, : Alexandria, VA	0.749	-		-		-		-		-	0.000	0.749	0.749
Management Services 4	MIPR	JFCOM, : Norfolk, Va	0.100	-		-		0.000		-		0.000	0.000	0.100	0.100
		Subtotal	18.804	-		-		0.000		-		0.000	0.000	18.804	18.804

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	230.671	14.240		14.294		7.600		-		7.600	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*



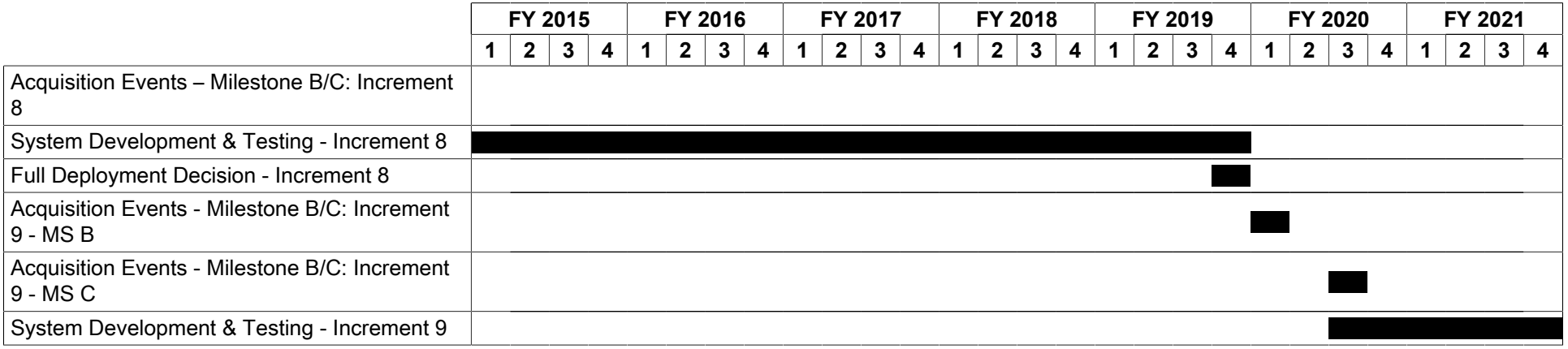


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Events – Milestone B/C: Increment 8	2	2014	2	2014
System Development & Testing - Increment 8	2	2014	4	2019
Full Deployment Decision - Increment 8	4	2019	4	2019
Acquisition Events - Milestone B/C: Increment 9 - MS B	1	2020	1	2020
Acquisition Events - Milestone B/C: Increment 9 - MS C	3	2020	3	2020
System Development & Testing - Increment 9	3	2020	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0305172K / *Combined Advanced Applications*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	15.336	-	15.336	13.866	11.087	11.258	11.457	Continuing	Continuing
CA1: *Combined Advanced Applications*	-	0.000	0.000	15.336	-	15.336	13.866	11.087	11.258	11.457	Continuing	Continuing

A. Mission Description and Budget Item Justification

Program is classified and exhibit will be provided under a separate cover.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	15.336	-	15.336
Total Adjustments	0.000	0.000	15.336	-	15.336
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	15.336	-	15.336

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0305172K / *Combined Advanced Applications*	Project (Number/Name) CA1 / *Combined Advanced Applications*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
CA1: *Combined Advanced Applications*	-	0.000	0.000	15.336	-	15.336	13.866	11.087	11.258	11.457	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 2015	FY 2016	FY 2017
Title: Combined Advanced Applications	-	-	15.336
FY 2017 Plans: Classified			
Accomplishments/Planned Programs Subtotals	-	-	15.336

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Classified

E. Performance Metrics

Classified

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	568.205	62.902	63.341	57.501	-	57.501	59.657	62.856	63.564	64.836	Continuing	Continuing
T30: *MRTFB Test and Evaluation*	144.296	9.865	8.072	7.624	-	7.624	7.693	7.829	7.828	7.988	Continuing	Continuing
T40: *Major Range Test Facility Base Operations*	423.909	53.037	55.269	49.877	-	49.877	51.964	55.027	55.736	56.848	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. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	63.558	64.921	59.675	-	59.675
Current President's Budget	62.902	63.341	57.501	-	57.501
Total Adjustments	-0.656	-1.580	-2.174	-	-2.174
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.580			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.656	-	-2.174	-	-2.174

Change Summary Explanation

The decrease of -$0.656 in FY 2015 is the result of reductions in T&E infrastructure requirements gained through implementation of a converged T&E capabilites and information environments.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*

The decrease of -$1.580 in FY 2016 is the result of increased use of virtualization and cloud technologies to provide automation and services.

The decrease of -$2.174 in FY 2017 is the result of reductions in development of enterprise T&E methods, tools, and efficiencies gained through increased use of virtualization and cloud technologies in business and test bed operations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / *C4I Interoperability*	Project (Number/Name) T30 / *MRTFB Test and Evaluation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T30: *MRTFB Test and Evaluation*	144.296	9.865	8.072	7.624	-	7.624	7.693	7.829	7.828	7.988	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 three 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.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

• 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 2015	FY 2016	FY 2017
Title: DoD's Joint Interoperability Certification Authority	8.820	7.096	6.704
Description: 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.			
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Assured interoperability controls were met by conducting T&E on IT/NSS and acquisition programs. Provided interoperability test support for the DoD's migration to a converged enterprise environment. Supported JIE by providing interoperability test, evaluation and certification support. Supported the secure operationalized interoperability of the JIE by developing policies and methodologies for the conduct of T&E on enterprise services, cyber security capabilities, cloud computing and brokering, and mobile devices and applications. Provided interoperability test, evaluation and certification support for JIE capabilities from the infrastructure to applications and continued to refine policies and test and evaluation methodologies as new technologies and approaches for JIE migration were developed and deployed. ***FY 2016 Plans:*** Focus on new T&E capabilities designed to add flexibility and enhance collaboration with partners to improve T&E services. Leverage cloud and virtual technologies to provide automation and services that are more agile than physical test environments. Continue to capitalize on big data analytics and tools to conduct data analysis in the operational environment allowing for continuous assessment of overall performance, providing a means to define trends, focus test events, as well as reduce risk through continuous monitoring and evaluation. The decrease of -$1.724 from FY 2015 to FY 2016 is due to increased use of virtualization and cloud technologies to provide automation and services; and the reduction of contractor support due to phase-out of (DICE) Tactical Edge Testbed and methodology development by end of FY 2016. ***FY 2017 Plans:*** Continue to enhance current T&E capabilities by employing automation technologies making these capabilities accessable to customers via the cloud in a self-service mode. Employ new technology and methodology to conduct data analysis in the operational environment promoting continuous assessment of capability performance resulting in identification/analysis of trends impacting ability to focus test events and reduce risk. The decrease of -$0.392 from FY 2016 to FY 2017 is due to the automation of T&E services through the use of virtualization and cloud technologies thus reducing contractor support for these services and the reduction of contractor support for DICE Tactical Edge Testbed and methodology development completely phased out at the end of FY 2016.			
Title: Operational Test and Evaluation	0.783	0.856	0.800
Description: 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.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: Provided OT&E for the JIE to ensure IT capabilities were effective, suitable, and secure. Provided continuing OT&E support to COCOMs, Military Services, and Defense Agencies, as requested. ***FY 2016 Plans:*** Improve OT&E processes, procedures, and tools to evolve operational testing capabilities through the use of virtualization to emulate users and devices to better evaluate performance. Provide OT&E for JIE to ensure capabilities are effective, suitable, interoperable, and secure. Provide continuing OT&E support to COCOMs, Military Services, and Defense Agencies, as requested. The increase of +$0.073 from FY 2015 to FY 2016 is for development of new methodologies for the conduct of OT&E. ***FY 2017 Plans:*** Will continue to enhance OT&E processes, procedures, and tools through the use of automation and virtualization to improve operational testing capabilities for evolving requirements to better evaluate performance. Will provide OT&E support to COCOMs, Military Services, and Defense Agencies as requested. The decrease of -$0.056 from FY 2016 to FY 2017 is due to transition of OT&E support for JIE contract reductions for delivery of testing tools.			
Title: Support to Warfighter	0.262	0.120	0.120
Description: 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. ***FY 2015 Accomplishments:*** Warfighter support was eliminated in some regions and focused primarily on the Asia Pacific region, consistent with the National Defense Strategy. Warfighter capability sustained to respond to critical fielded system issues only. ***FY 2016 Plans:*** Focus support primarily on the Asia Pacific region, consistent with the National Defense Strategy. Sustain a Warfighter Support capability to respond to critical fielded system issues only. The decrease of -$0.142 from FY 2015 to FY 2016 is due to reduction or elimination of support consistent with the National Defense Strategy. ***FY 2017 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Support focused primarily on the Asia Pacific region will continue, consistent with the National Defense Strategy. Will sustain a Warfighter Support capability sufficient to respond to critical fielded system issues only.			
Accomplishments/Planned Programs Subtotals	9.865	8.072	7.624

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

T&E Mission Support Services (MSS) cost plus and firm fixed price 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 T&E MSS contract provides for expansion and contraction of staff years as workload dictates.

E. Performance Metrics

JITC manages the Department's Joint Interoperability Test, Evaluation, and Certification process and Operational testing for Information Technology (IT)/National Security Systems (NSS) as well as test and evaluation activities for DISA's deliverables ensuring they have met operational requirements. JITC develops test and evaluation strategies, plan, and reports in the design, development, operational, integration and/or sustainment aspects of every program requiring support. Specific metrics are described below:

1. Metric: Provide operational test plans prior to the start date of a test for all customers where JITC is the OTA.
Measure/Goal: 90%
FY15 Actual: 84.62%
FY16 Target: 95%
FY17 Target: 95%

2. Metric: Provide operational test reports no later than 60 days after the completion of a test event when JITC is the responsible OTA.
Measure/Goal: 90%
FY15 Actual: 63.64%
FY16 Target: 95%
FY17 Target: 95%

3. Provide a interoperability certification letter to customers (JS, COCOMS,AT&L, etc) no later than 60 days from the completion of the test event/effort.
Measure/Goal: 95%
FY15 Actual: 95%

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

FY16 Target: 95%
FY17 Target: 95%

4. JITC surveys customers for each product that is delivered (POA&Ms, test Plans, Test Reports, etc.) in terms of cost, schedule, and overall performance on a 1-5 scale with 5 being the highest rating.
Measure/Goal: 4.5
FY15 Actual: 4.4
FY16 Target: 4.5
FY17 Target: 4.5

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / *C4I Interoperability*	Project (Number/Name) T30 / *MRTFB Test and Evaluation*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	36.487	-		-		-		-		-	0.000	36.487	36.487
Test and Evaluation	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	44.342	-		-		-		-		-	0.000	44.342	44.342
Test and Evaluation	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	25.831	-		-		-		-		-	0.000	25.831	25.831
Test and Evaluation	C/Various	Various : Various	11.110	3.966	Oct 2014	-		-		-		-	Continuing	Continuing	Continuing
Test and Evaluation	Option/ CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	-	-		0.004	Oct 2015	0.004	Oct 2016	-		0.004	Continuing	Continuing	Continuing
Test and Evaluation	Option/ CPFF	AMERICAN SYSTEMS CORP : Various	-	-		0.066	Oct 2015	0.063	Oct 2016	-		0.063	Continuing	Continuing	Continuing
Test and Evaluation	Option/ CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	-	-		0.293	Oct 2015	0.277	Oct 2016	-		0.277	Continuing	Continuing	Continuing
Test and Evaluation	Option/ CPFF	OBERON ASSOCIATES : Various	-	-		0.056	Oct 2015	0.053	Oct 2016	-		0.053	Continuing	Continuing	Continuing
Test and Evaluation	Option/ CPFF	TASC, INC. : Various	-	-		1.174	Oct 2015	1.111	Oct 2016	-		1.111	Continuing	Continuing	Continuing
Test and Evaluation	Option/ FFP	Multiple : Various	-	-		0.776		0.734	Oct 2016	-		0.734	Continuing	Continuing	Continuing
		Subtotal	117.770	3.966		2.369		2.242		-		2.242	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / *C4I Interoperability*	Project (Number/Name) T30 / *MRTFB Test and Evaluation*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	Various	Defense Information Systems Agency : Ft. Huachuca, AZ	26.526	5.899	Oct 2014	5.703	Oct 2015	5.382	Oct 2016	-		5.382	Continuing	Continuing	Continuing
		Subtotal	26.526	5.899		5.703		5.382		-		5.382	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	144.296	9.865		8.072		7.624		-		7.624	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

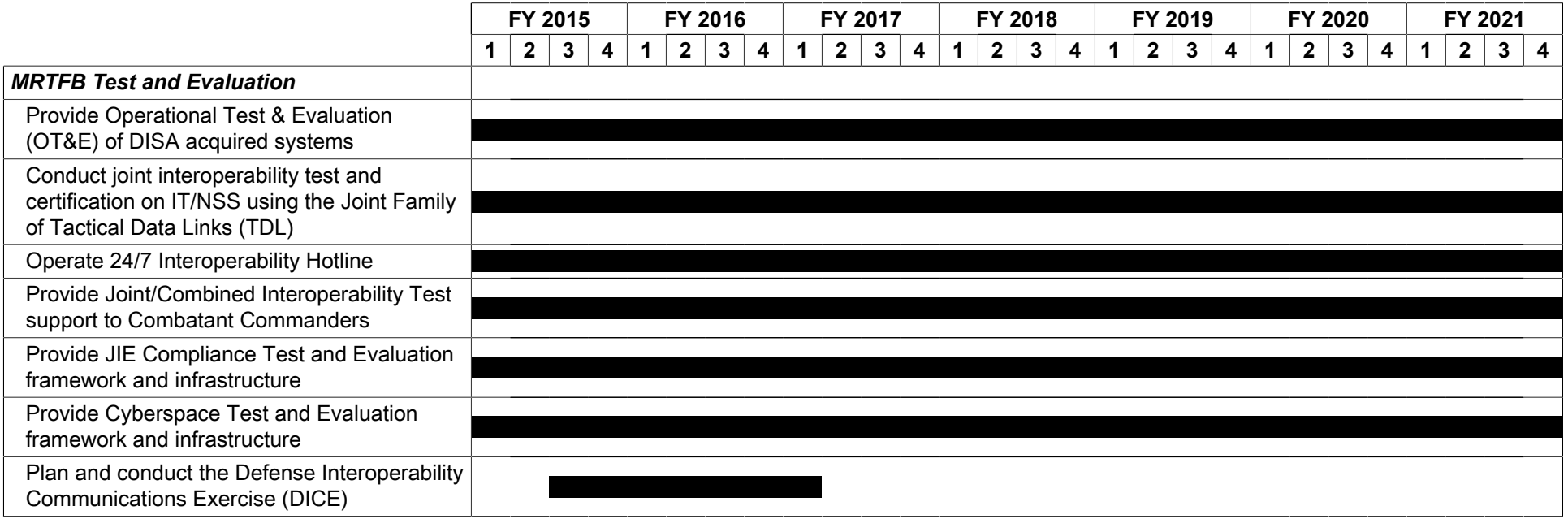


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MRTFB Test and Evaluation				
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems	1	2015	4	2021
Conduct joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Links (TDL)	1	2015	4	2021
Operate 24/7 Interoperability Hotline	1	2015	4	2021
Provide Joint/Combined Interoperability Test support to Combatant Commanders	1	2015	4	2021
Provide JIE Compliance Test and Evaluation framework and infrastructure	1	2015	4	2021
Provide Cyberspace Test and Evaluation framework and infrastructure	1	2015	4	2021
Plan and conduct the Defense Interoperability Communications Exercise (DICE)	3	2015	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / *C4I Interoperability*	Project (Number/Name) T40 / *Major Range Test Facility Base Operations*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T40: *Major Range Test Facility Base Operations*	423.909	53.037	55.269	49.877	-	49.877	51.964	55.027	55.736	56.848	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 three geographic locations (Ft. Huachuca, AZ; Indian Head, MD; Ft. Meade, MD).
- Comprises 140K square feet of raised floor space and four acres of outdoor IT range space that is divided into 47 unique environments reachable through eight different communication networks.
- 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 more than 200 IT systems, reference implementations, and testing tools to aid both test execution and data collection/analysis.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: MRTFB Improvements and Operations	53.037	55.269	49.877
Description: 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&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.			
FY 2015 Accomplishments: As an MRTFB, Joint Interoperability Test Command (JITC) provided the testing infrastructure and capabilities that are used when evaluating the Department's IT/NSS. Continued sustainment of the infrastructure, laboratory and testing hardware/software to enable T&E of a converged information environment, Cyber, Cloud services, Mobility, and NSS. Maintained technical workforce			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
skills, support base operations, communications, automation, operating expenses at Indian Head, MD; Fort Huachuca, AZ; and Fort George G. Meade, MD. ***FY 2016 Plans:*** As an MRTFB, JITC operates the DISA IT test infrastructure. Standardization of testbed infrastructure is ongoing and leveraging of cloud technologies provides seamless distributed testing services and efficient use of testing equipment and resources across the Agency and the Department. Expanded use of automation, virtualization, and access to big data will enable the reduction of the MRTFB IT footprint. Maintain technical workforce skills, support base operations, communications, automation, operating expenses at each location. The increase of +$2.232 from FY 2015 to FY 2016 will continue efforts to improve the expansion of automation and virtualization capabilities of DISA IT testing and evaluation services. ***FY 2017 Plans:*** As an MRTFB, JITC operates the DISA IT Test infrastructure which consists of a standarized test bed at Fort George G. Meade, MD and Fort Huachuca, AZ. JITC will continue to expand the use of cloud technologies provide seamless distributed testing services and efficient use of testing equipment and resources for use across the Agency and the Department. JITC will maintain technical workforce, support base operations, communications, and operating expenses at each location. The decrease of -$5.392 from FY 2016 to FY 2017 is due to implementation of new cyber and enterprise test methods and automated tools and use of virtualization and cloud techologies, enabling JITC to reduce the IT foot print and gain operational efficiencies.			
Accomplishments/Planned Programs Subtotals	53.037	55.269	49.877

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

A T&E Mission Support Services (MSS) cost plus and firm fixed price 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 T&E MSS contract provides maximum flexibility and allow 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.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

E. Performance Metrics

Major Range Test Facility Base (MRTFB) Operations sustain the infrastructure, capabilities and services of DISA's MRTFB. While maintaining a focus on improving automation, instrumentation and virtualization, this MRTFB is working toward ensuring assets support customers with testing on demand services to enable rapid delivery of enhanced military capabilities. Specific metrics are described below:

5. Provide configuration changes to the MRTFB infrastructure NLT 5 days after formal customer service request received.
Measure/Goal: 90%
FY15 Actual: Estimate 90%
FY16 Target: 95%
FY17 Target: 95%

6. Complete new configuration additions (equipment installs) NLT 14 days after receipt of customer requirements form.
Measure/Goal: 90%
FY15 Actual: Estimate 85%
FY16 Target: 90%
FY17 Target: 95%

7. Availability of enterprise service test capabilities T&E enclave.
Measure/Goal: 95%
FY15 Actual: N/A – waiting Authority to Operate (ATO)
FY16 Target: 90%
FY17 Target: 95%

8. Availability of the Tactical Data Link Standard Conformance test tool to various DoD platforms (e.g., weapons systems).
Measure/Goal: 95%
FY15 Actual: 100%
FY16 Target: 95%
FY17 Target: 95%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / *C4I Interoperability*	Project (Number/Name) T40 / *Major Range Test Facility Base Operations*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation 1	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	75.279	-		-		-		-		-	0.000	75.279	75.279
Test and Evaluation 2	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	99.188	-		-		-		-		-	0.000	99.188	99.188
Test and Evaluation 3	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	49.746	-		-		-		-		-	0.000	49.746	49.746
Test and Evaluation 4	C/Various	VARIOUS - pending development of query : VARIOUS	35.943	18.538	Oct 2014	-		-		-		-	Continuing	Continuing	Continuing
Test and Evaluation 5	Option/ CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	-	-		0.218	Oct 2015	0.192	Oct 2016	-		0.192	Continuing	Continuing	Continuing
Test and Evaluation 6	Option/ CPFF	AMERICAN SYSTEMS COPR : Various	-	-		0.551	Oct 2015	0.485	Oct 2016	-		0.485	Continuing	Continuing	Continuing
Test and Evaluation 7	Option/ CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	-	-		3.502	Oct 2015	3.081	Oct 2016	-		3.081	Continuing	Continuing	Continuing
Test and Evaluation 8	Option/ CPFF	OBERON ASSOCIATES : Various	-	-		5.297	Oct 2015	4.660	Oct 2016	-		4.660	Continuing	Continuing	Continuing
Test and Evaluation 9	Option/ CPFF	TASC, INC. : Various	-	-		1.397	Oct 2015	1.229	Oct 2016	-		1.229	Continuing	Continuing	Continuing
Test and Evaluation 10	Option/ CPFF	BEACON GROUP SW, INC : Various	-	-		8.614	Oct 2015	7.579	Oct 2016	-		7.579	Continuing	Continuing	Continuing
Test and Evaluation 11	Option/ CPFF	Multiple : Various	-	-		7.708	Oct 2015	8.032	Oct 2016	-		8.032	Continuing	Continuing	Continuing
		Subtotal	260.156	18.538		27.287		25.258		-		25.258	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	Various	Defense Information Systems Agency : Ft. Huachuca, AZ	163.753	34.499	Oct 2014	27.982	Oct 2015	24.619	Oct 2016	-		24.619	Continuing	Continuing	Continuing
		Subtotal	163.753	34.499		27.982		24.619		-		24.619	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	423.909	53.037		55.269		49.877		-		49.877	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

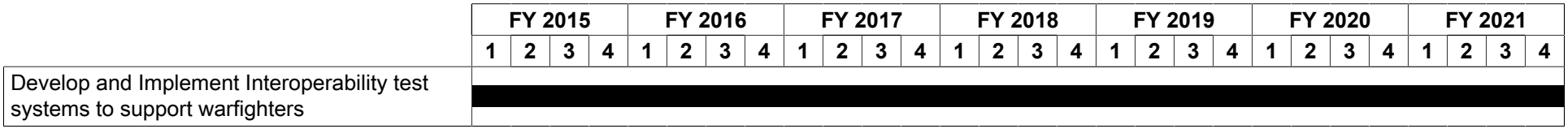


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Develop and Implement Interoperability test systems to support warfighters	1	2015	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	74.929	3.931	1.845	5.935	-	5.935	6.104	5.451	5.487	5.596	Continuing	Continuing
NND: *Multinational Information sharing*	74.929	3.931	1.845	5.935	-	5.935	6.104	5.451	5.487	5.596	Continuing	Continuing

A. Mission Description and Budget Item Justification

Through the Combined Enterprise Regional Information Exchange System (CENTRIXS) and Pegasus, the Multinational Information Sharing (MNIS) Program enables secure sharing of operational and intelligence information and enhances collaboration between United States (US) forces, trusted allies and other multinational partners. This effort also increases overall combat effectiveness by leveraging capabilities and information from all partners and reducing the possibility of fratricide. These coalition information sharing systems are in direct support of the Department of Defense's (DoD's) strategic goals to "Win our Nation's Wars" and "Deter conflict and promote security". The MNIS program supports five Combatant Commands (COCOMs) with connectivity in 89 nations, the North America Treaty Organization, 11 Bilateral agreements and 150 sites with over 80,000 users worldwide. MNIS also evaluates new technologies and develops tactics, techniques and procedures to facilitate the integration of emerging technologies and capabilities into operational multinational information sharing capability. The integration of new technology for CENTRIXS and Pegasus is accomplished through research, integration, and testing using the Combined Federated Battle Laboratory Network.

A planned improvement to the CENTRIXS coalition network, Common Mission Network Transport (CMNT), will provide distinct and permanent transport capabilities; enabling network operation centers to priority command and control information more efficiently. CMNT supports DoD instruction 8110.1 guidance for integrating CENTRIXS and other operational networks into existing DoD general service communications infrastructure as a separate network servicing all DoD MNIS requirements. This capability provides a common transport for encrypted traffic. CMNT will be the established encrypted network to facilitate the movement of virtual private network traffic between segments.

The MNIS emerging capability, Unclassified Information Sharing Services (UISS), extends US information sharing capabilities to mission partners providing enterprise-level solutions that allow COCOMs to share unclassified information with US Government agencies and non-traditional partners such as, host nations, intergovernmental organizations, and nongovernmental organizations. The employment concept for the UISS is to implement enterprise Web-based, "non-mil" platform, available to as broad a community as needed to support mission operations, with worldwide, 24 hour-a-day, seven day-a-week access, to any user with an Internet connection, including web-enabled mobile personal devices. Using an Internet-based capability and an integrated suite of commercial-off-the-shelf collaboration tools the UISS capability will enable unclassified information exchanges and ad-hoc communications for shared communities of interest and issue-specific groups among and across organizations and individuals.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.931	3.645	6.382	-	6.382
Current President's Budget	3.931	1.845	5.935	-	5.935
Total Adjustments	0.000	-1.800	-0.447	-	-0.447
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.800			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-0.447	-	-0.447

Change Summary Explanation

The decrease of -$1.800 in FY 2016 is attributed to decreased testing activities for classified networks that support CENTRIXS, Pegasus, and CFBLNet coalition environments.

The decrease of -$0.447 in FY 2017 is attributed to virtualized technology efficiencies resulting in reduced requirements for engineering and integration efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0301144K / *Joint/Allied Coalition Information Sharing*	Project (Number/Name) NND / *Multinational Information sharing*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
NND: *Multinational Information sharing*	74.929	3.931	1.845	5.935	-	5.935	6.104	5.451	5.487	5.596	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Multinational Information Sharing (MNIS) Program is a portfolio of four coalition information sharing capabilities designed to enable and improve sharing of operational and intelligence information among United States (US) forces and multinational partners.

1) Combined Enterprise Regional Information Exchange System (CENTRIXS), supports intelligence and classified operations at the Secret Releasable level. There are multiple, cryptographically-isolated CENTRIXS enclaves serving various communities of interest (COI) that support multinational efforts including Overseas Contingency Operations and counter-narcotics operations. CENTRIXS is regionally focused and combatant command (COCOM) centric. The MNIS Program Management Office provides selected centralized services from two Defense Enterprise Computing Centers for five of the 40+ CENTRIXS networks/COIs, and engineering support for standardized solutions.

2) Pegasus connects the national Command and Control (C2) systems of Combined Communications Electronics Board (CCEB) Nations including Australia, Canada, New Zealand, United Kingdom and the US, using commercial-off-the-shelf security appliances and cross domain solutions that facilitate situational awareness and operational planning/execution. Pegasus has a strategic focus and is member nation centric.

3) The Combined Federated Battle Laboratory Network (CFBLNet) provides a controlled coalition Research, Development, Trials and Assessment coalition information sharing “sandbox” for the US, CCEB Nations, North Atlantic Treaty Organization (NATO), and other mission essential nations. This sandbox is used to evaluate new technologies and to develop tactics, techniques and procedures that facilitate the transition of promising technologies and capabilities into operational multinational information sharing capability enhancements. CFBLNet's direct customers are the CCEB nations’ military operational and intelligence entities led by their US counterparts at the COCOM and Agency levels. It is being used for the Coalition Warrior Interoperability Demonstrations, NATO missile defense initiatives, and by the Intelligence, Surveillance and Reconnaissance community to test capabilities prior to deployment.

4) The Unclassified Information Sharing Service (UISS) extends US information sharing capabilities to mission partners, enterprise-level solutions that allow COCOMs to share unclassified information with other US Government agencies, host nations, inter-governmental organizations, non-governmental organizations, and other partners.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Multinational Information Sharing	3.931	1.845	5.935	-	5.935

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Description: Through the CENTRIXS and Pegasus, the MNIS Program enables secure sharing of operational and intelligence information and enhances collaboration among US forces, most trusted allies and additional multinational partners. The MNIS Program also initiated a capability to support enhancements for the UISS-All Partners Access (APAN). UISS-APAN migrated existing systems supporting coalition sharing to an enterprise solution hosted on a DISA Defense Enterprise Computing Center. UISS-APAN capability will satisfy COCOM needs for tools and technology to support collaboration with non-traditional partners for humanitarian missions. ***FY 2015 Accomplishments:*** CENTRIXS CMNT: Supported systems engineering, testing and integration on reconnaissance network requirement capabilities. Pegasus: Implemented the National Gateway Consolidation Plan for web services, Voice over Internet Protocol (VoIP) and continued to improve and to expand and enhance chat services to all CCEB Nations. CFBLNet: Provided a Research, Development, Trials and Assessment (RDTA) testing environments for NATO, the CCEB nations and other mission essential nations. Evaluated emerging capabilities and technologies supportive of coalition information sharing needs. UISS-APAN: Moved infrastructure as a Service (IaaS) to a cloud environment and continued to design and develop capability improvements to increase user capacity. ***FY 2016 Plans:*** CENTRIXS CMNT: Will complete CMNT transport integration and testing to modernize, improve and provide more effective and faster classified information sharing across the enterprise by the end of FY 2016. Will perform testing and support activities for CENTRIXS virtual technologies to align to the Joint Information Environment (JIE) and evolve CENTRIXS to the Mission Partner Environment - Information Systems (MPE-IS) to be more responsive to COCOM missions to receive services within days vice weeks. Pegasus: Perform testing and integration activities to upgrade Pegasus Chat solution for interoperability with all Five Eyes (FVEY) nations. Integrate and test FVEY sharepoint solution. CFBLNet: Provide integration and testing services to expand CFBLNet enclave to support Coalition Verification and Validation Environment (CV2E) enclave.					

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
UISS-APAN: Perform network system architecture designs and integration testing for commercial cloud services and mobility efforts. The decrease of -$2.086 from FY 2015 to FY 2016 is attributed to decreased testing activities; research, engineering, and planning support for classified networks that include CENTRIXS, Pegasus, and CFBLNet coalition environments. ***FY 2017 Base Plans:*** CENTRIXS CMNT: Continue leveraging technology refresh activities for integration of CENTRIXS environments to include MPE-IS and standardize coalition environments to support hosting more COIs to gain efficiencies in infrastructure consolidation and rapid mission response time. MPE-IS testing and integration activities will support CENTRIXS core services for Episodic and Enduring MPE Capabilities for COCOMs. Pegasus: Plan to perform testing and integration activities for MPE FVEY Nations capabilities to support one-time and on-going capabilities for FVEY Nations (AUS/CAN/NZL/UK/USA). CFBLNet: Plan to perform testing and integration activities for Commercial Solutions for Classified (CSfC) to provide more efficient classified communications for coalition networks. Plan to provide integration and testing services to expand CFBLNet as a Service to support MPE virtualization and Coalition Test Bed Environments. UISS-APAN: Plan to perform network system architecture integration and testing for the Unclassified Mission Partner Environment (MPE) Gateway and cloud efforts to support Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS). The increase of +$4.090 from FY 2016 to FY 2017 provides an increase in testing and integration activities for MPE Episodic and Enduring capabilities to implement virtualized technologies for Classified COIs and Unclassified MPE Gateway integration and testing.					
Accomplishments/Planned Programs Subtotals	3.931	1.845	5.935	-	5.935

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/0301144K: *O&M, DW*	51.348	50.352	45.961	1.668	47.629	46.665	46.749	47.227	48.172	Continuing	Continuing
• Proc, DW/0301144K: *Proc, DW*	0.000	0.596	0.623	-	0.623	0.708	1.003	1.003	1.023	Continuing	Continuing

Remarks

D. Acquisition Strategy

Performance-based contracts are primarily used for this support. MNIS maximizes the use of competitive awards and uses various contract types, employs large and small contractors, and is focused to achieve agency socio-economic goals and incorporate DoD acquisition reform initiatives. MNIS evaluates performance by conducting thorough Post-award Contract Reviews, monthly Contract Performance Reviews, and monthly In-Process Reviews.

E. Performance Metrics

PERFORMANCE METRICS
Measure:
-Functional and/or Security Test & Evaluation test cases.

Performance Metric:
-System will provide for 99.99% data integrity for authorized users sharing information cross COI. FY14 (Actual): Met
FY15 (Actual): Met
FY16 (Estimate): N/A
FY17 (Estimate): N/A

-Maintain 99.99% confidentiality for users, by Nation between COI's. FY14 (Actual): Met
FY15 (Actual): Met
FY16 (Estimate): N/A
FY17 (Estimate): N/A

-Direct traffic with 99.99% accuracy for chat, email, VOIP, file transfer, data storage and web service. FY14 (Actual): Met
FY15 (Actual): Met
FY16 (Estimate): N/A
FY17 (Estimate): N/A

Methodology:
-Assessment Plan

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

-Sample ≥ 10K transactions (Email, chat & file storage/transfer)

-Conduct selected ST&E test cases

Measure:
-Security
Performance Metric:

-Deny 98.5% of unauthorized user attempts FY14 (Actual): Met
FY15 (Actual): Met
FY16 (Estimate): N/A
FY17 (Estimate): N/A

Methodology:
-Assessment Plan
-DISA Field Security Operations will conduct penetration testing

Measure:
-Security

Performance Metric:
-Audit log must capture 99.99% of any unauthorized user activity. FY14 (Actual): Met
FY15 (Actual): Met
FY16 (Estimate): N/A
FY17 (Estimate): N/A

Measure:
-% of design, testing and integration activities for MNIS classified technology refresh projects complete (9 Nodes) – 100%

Performance Metric:
-Information Assurance (Classified)
FY15 (Actual): Met
FY16 (Estimate): Expected to Meet
FY17 (Estimate): Expected to Meet

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Methodology:
-Technology Refreshes Projects – 100%
-Direct traffic with 99.99% accuracy for chat, email, VOIP, file transfer, data storage and web service.

Measure:
-Number of CFBLNet Exercises/Events hosted

Performance Metric:
-Annual number of CFBLNet Exercises hosted ≥ 2 Exercises Hosted (Empire Challenge & CWIX)
FY15 (Actual): Met; hosted over 5 exercises
FY16 (Estimate): Expected to Meet
FY17 (Estimate): Expected to Meet

-Annual number of Test Bed Exercise ≥ 16 Test Events Hosted FY16 (Estimate): Expected to Meet
FY17 (Estimate): Expected to Meet

Methodology:
-Number of excercises hosted per Fiscal Year

Measure:
Cloud integration, Development, Integration, Testing (Unclassified)

Performance Metric:
% of Cloud Development, Testing, Integration and Implementation Complete = 100%
FY15 (Expected Actual): Met
FY16 (Estimate): Expected to Meet
FY17 (Estimate): Expected to Meet

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cross Domain Chat - develop & tech svcs	C/CPFF	Harris Corporation : Alexandria VA	15.149	-		-		-		-		-	0.00	15.149	15.149
Cross Domain Solutions – operational capabilities support	C/CPFF	HAI/Raytheon : Arlington VA	11.781	-		-		-		-		-	0.00	11.781	11.781
Cross Domain Chat	C/CPFF	TBD : TBD	-	0.137	Jan 2015	0.100	Jan 2016	0.100	Jan 2017	-		0.100	Continuing	Continuing	Continuing
Cross Domain Solutions - Ops Capabilities Spt	C/CPFF	CACI : Chantilly VA	0.650	0.075	Feb 2015	0.075	Aug 2016	0.100	Aug 2017	-		0.100	Continuing	Continuing	Continuing
		Subtotal	27.580	0.212		0.175		0.200		-		0.200	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CLASSIFIED	MIPR	- : -	9.069	-		-		-		-		-	Continuing	Continuing	Continuing
Federally Funded Research Develop Center (FFRDC)	C/CPFF	MITRE : Arlington VA	7.328	-		0.571	Feb 2016	0.850	Oct 2016	-		0.850	Continuing	Continuing	Continuing
Program support	C/CPFF	Ingenium and SAIC : Upper Marlboro MD and Washington D.C.	1.522	-		-		-		-		-	0.00	1.522	1.522
Engineering Support	C/CPFF	Raytheon : Arlington VA	8.580	-		-		-		-		-	0	8.580	8.580
DoD Services	MIPR	Various - SPAWAR and Pacific Warfighting Ctr : Hawaii	4.110	1.122	Oct 2014	-		-		-		-	Continuing	Continuing	Continuing
Project Planning and Management	C/CPFF	Harris Corporation : Alexandria VA	4.315	-		-		-		-		-	0.00	4.315	Continuing
Engineering Support	C/CPFF	CACI : Chantilly VA	0.975	0.050	Aug 2015	0.075	Aug 2016	0.075	Aug 2017	-		0.075	Continuing	Continuing	Continuing
Project Planning	C/CPFF	TBD : TBD	-	1.553	Nov 2014	0.041	Jan 2016	1.500	Jan 2017	-		1.500	Continuing	Continuing	-
Engineering Support	C/CPIF	TBD : TBD	-	-		0.195	Nov 2015	1.723	Dec 2016	-		1.723	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	35.899	2.725		0.882		4.148		-		4.148	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Coalition Lab T&E, IAVA STIG	MIPR	JITC : Fort Meade MD	11.450	0.994	Dec 2014	0.788	Dec 2015	1.587	Mar 2017	-		1.587	Continuing	Continuing	Continuing
		Subtotal	11.450	0.994		0.788		1.587		-		1.587	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	74.929	3.931		1.845		5.935		-		5.935	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

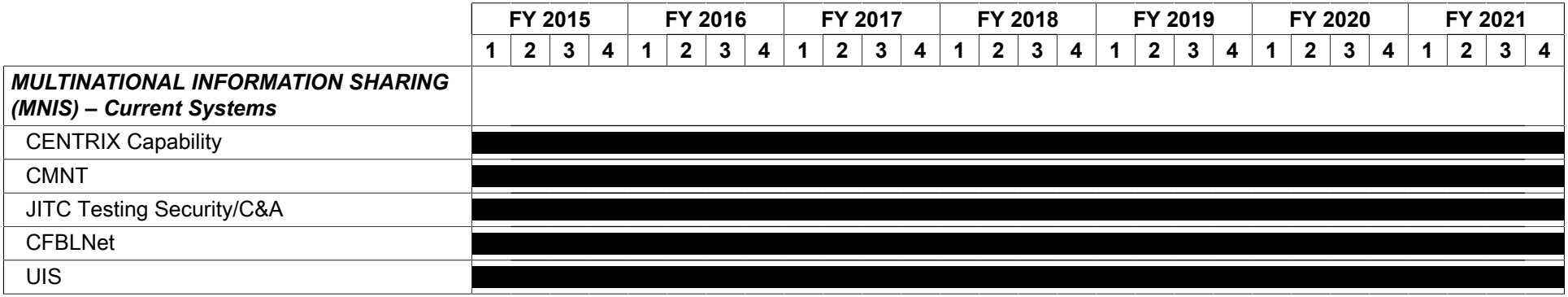

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MULTINATIONAL INFORMATION SHARING (MNIS) – Current Systems				
CENTRIX Capability	1	2015	4	2021
CMNT	1	2015	4	2021
JITC Testing Security/C&A	1	2015	4	2021
CFBLNet	1	2015	4	2021
UIS	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	5.391	0.924	0.963	0.575	-	0.575	1.155	1.105	0.988	1.008	Continuing	Continuing
S32: *NMCS Command Center Engineering*	5.391	0.924	0.963	0.575	-	0.575	1.155	1.105	0.988	1.008	Continuing	Continuing

A. Mission Description and Budget Item Justification

The National Military Command System (NMCS), operated by the Chairman of the Joint Chiefs of Staff, provides the President, Secretary of Defense, and other national senior leaders the ability to maintain situational and operational awareness and command and control of military forces in all crisis and/or national emergency contingencies. DISA's NMCS engineering program meets the NMCS systems engineer responsibilities, per Department of Defense Directive (DoDD) S-5100.44 and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3280.01B, to provide the Joint Staff with operationally efficient and cost-effective engineering solutions to ensure that components and facilities satisfy operational requirements including emergency messaging, situational awareness, crisis action, and information management.

The NMCS engineering program is vital in supporting the government's ability to safeguard national security and respond to contingencies globally and/or nuclear war. NMCS engineering focuses on implementing collaborative tools into current and crisis operations areas, integrating adequate back-up storage and recovery of voice, video and data across the continental United States to support key leaders, transitioning nuclear command and control to Internet Protocol based networks, migrating data and voice network to next generation satellites, implementing modern cryptological devices, and utilizing wireless networking to support warning systems and situational awareness. In addition, NMCS engineering continues to maintain the NMCS Reference Guide required by DoDD S-5100.44 and to develop engineering and test plans for the installation of hardware and software systems utilized within the NMCS.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.924	0.963	0.956	-	0.956
Current President's Budget	0.924	0.963	0.575	-	0.575
Total Adjustments	0.000	0.000	-0.381	-	-0.381
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.381	-	-0.381

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302016K *I National Military Command System-Wide Support*

Change Summary Explanation

The decrease of -$0.381 in FY 2017 is due to a reduction of the Joint Systems Engineering and Integration Office's (JSEIO's) engineering and analysis efforts supporting Ultra High Frequency (UHF) Emergency Network (UEN) ground entry points (GEPs) re-siting and network infrastructure redesign.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302016K / *National Military Command System-Wide Support*	Project (Number/Name) S32 / *NMCS Command Center Engineering*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S32: *NMCS Command Center Engineering*	5.391	0.924	0.963	0.575	-	0.575	1.155	1.105	0.988	1.008	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The National Military Command System (NMCS), operated by the Chairman of the Joint Chiefs of Staff, provides the President, Secretary of Defense, and other national senior leaders the ability to maintain situational and operational awareness and command and control of military forces in all crisis and/or national emergency contingencies. DISA's NMCS engineering program meets the NMCS systems engineer responsibilities, per Department of Defense Directive (DoDD) S-5100.44 and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3280.01B, to provide the Joint Staff with operationally efficient and cost-effective engineering solutions to ensure that components and facilities satisfy operational requirements including emergency messaging, situational awareness, crisis action, and information management.

The NMCS engineering program is vital in supporting the government's ability to safeguard national security and respond to contingencies globally and/or nuclear war. NMCS engineering focuses on implementation of collaborative tools into current and crisis operations areas, the integration of adequate back-up storage and recovery of voice, video and data across the continental United States to support key leaders, transition of nuclear command and control to Internet Protocol (IP)-based networks, migration of data and voice network to next generation satellites, implementation of modern crypto-logical devices, and the utilization of wireless networking to support warning systems and situational awareness. In addition, NMCS engineering continues to maintain the NMCS Reference Guide (NRG) required by DoDD S-5100.44 and to develop engineering and test plans for the installation of hardware and software systems utilized within the NMCS.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: NMCS Systems Engineering	0.924	0.963	0.575
FY 2015 Accomplishments: Maintained the Primary Command Center (PCC) Toolkit and the Online Companion Reference. Continued to modernize and integrate NMCS capabilities (e.g., transmission platforms, data interfaces, security and graphical user interfaces). Continued to ntegrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the National Leadership Command Capability (NLCC). These efforts also supported the Joint Systems Engineering and Integration Office (JSEIO) mission and improved situational monitoring systems across the PCCs.			
FY 2016 Plans: Will maintain the NMCS Reference Guide (NRG) and the PCC Toolkit to ensure expanded collaboration and information sharing. Update, automate and maintain the Online Companion Reference for the CJCSI 3280.01M which is critical to ongoing operations. Provide technical evaluations and strategies for implementing Nuclear Command and Control over IP into other National Leadership Command Capability (NLCC) enabling programs. Support engineering requirements and continue in identifying			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
technical solutions to integrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the NLCC. Focus on implementing collaborative tools into current and crisis operations areas, integrate adequate back-up storage and recovery of voice, video and data to support key leaders and migrate data and voice networks to next generation satellites. The increase of +$0.039 from FY 2015 to FY 2016 will address data integration and engineering activities required to deliver enterprise level solutions to meet NMCS priorities. ***FY 2017 Plans:*** Will modernize and integrate NMCS capabilities (e.g. transition platforms, data interfaces, security and graphical user interfaces) as the NMCS systems engineer IAW the CJCSI 3280 and CJCSI 5119. Will focus on the improvement of collaborative services, and the integration of new transport mediums that facilitate C3 services. The decrease of -$0.388 from FY 2016 to FY 2017 is due to a reduction of JSEIO's engineering and analysis efforts supporting Ultra High Frequency (UHF) Emergency Network (UEN) ground entry points (GEPs) re-siting and network infrastructure redesign.			
Accomplishments/Planned Programs Subtotals	0.924	0.963	0.575

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/PE 0302016K: *O&M, DW*	3.263	3.311	3.213	-	3.213	3.254	3.242	3.281	3.342	Continuing	Continuing

Remarks

D. Acquisition Strategy

Full and open competition resulted in a contract with Raytheon, Arlington, VA.

E. Performance Metrics

The JSEIO conducts regularly scheduled In-progress Program Reviews (IPRs) and Configuration Control Board (CCB) meetings to monitor status of engineering projects/tasks. Each current project/task is evaluated in terms of how well the technical work is progressing and how allocated resources are being utilized. Adjustments to resources, schedules, and technical directions are made, as required. Future projects/tasks are also discussed, thereby ensuring an integrated approach is maintained across all related project/task areas. To further increase the utility of the IPR/CCB structure, the Joint Staff customer participates in the project/task reviews. The result of this approach is a truly integrated effort of NMCS Engineering, contractor, and Joint Staff working together to achieve common program goals. Suitable products are delivered within allocated resources and delivered on schedule 90% of the time.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

The NMCS met all FY 2015 performance metrics and is on track to meet its FY 2016 and FY 2017 metrics by delivering suitable products on schedule and within allocated resources 100% of the time.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Tech Services	C/CPFF	Raytheon E-Sys : Arlington, VA	5.391	0.924	Jan 2015	0.963	Jan 2016	0.575	Jan 2017	-		0.575	Continuing	Continuing	5.525
		Subtotal	5.391	0.924		0.963		0.575		-		0.575	-	-	5.525

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.391	0.924		0.963		0.575		-		0.575	-	-	5.525

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

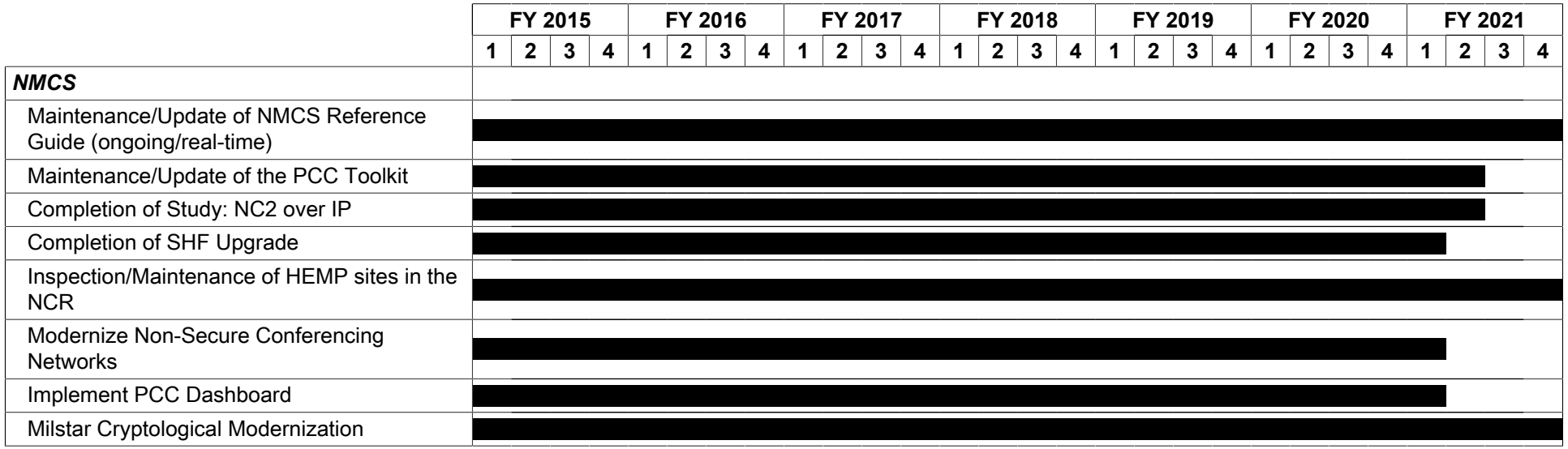

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NMCS				
Maintenance/Update of NMCS Reference Guide (ongoing/real-time)	1	2015	4	2021
Maintenance/Update of the PCC Toolkit	1	2015	2	2021
Completion of Study: NC2 over IP	1	2015	2	2021
Completion of SHF Upgrade	1	2015	1	2021
Inspection/Maintenance of HEMP sites in the NCR	1	2015	4	2021
Modernize Non-Secure Conferencing Networks	1	2015	1	2021
Implement PCC Dashboard	1	2015	1	2021
Milstar Cryptological Modernization	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	104.746	12.680	10.120	18.041	-	18.041	23.499	23.130	22.447	22.893	Continuing	Continuing
E65: *Modeling and Simulation*	70.317	8.458	6.079	7.709	-	7.709	10.555	10.408	10.132	10.333	Continuing	Continuing
T62: *DoD Information Network (DoDIN) Systems Engineering and Support*	34.429	4.222	4.041	10.332	-	10.332	12.944	12.722	12.315	12.560	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) to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP). The OCTO identifies these gaps/shortfalls, pursues leading innovative solutions from industry, academia, and the Federal sector, and engages industry partners for commercial best practices. The OCTO develops technology forecasts and innovation roadmaps for existing and nascent DISA programs (Cloud Computing, Unified Capabilities, Cyber Security, End User Device/Mobility, and Process/Automation). The OCTO conducts technical system engineering reviews and oversight of DISA and DoD enterprise products and services. The OCTO performs early identification of technology needs and explores, develops, and delivers recommended emerging technologies to the DISA Requirements & Analysis Office.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	9.612	10.186	9.720	-	9.720
Current President's Budget	12.680	10.120	18.041	-	18.041
Total Adjustments	3.068	-0.066	8.321	-	8.321
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	3.068	-0.066	8.321	-	8.321

Change Summary Explanation

The increase of +$3.068 in FY 2015 is due to increased engineering activities to support information assurance and cyber security engineering solutions. These increased activities leverage mobility and cloud technology needs in support of the warfighter.

The decrease of -$0.066 in FY 2016 is attributable to a reduction in collaboration with industry subject matter experts.

The increase of +$8.321 in FY 2017 properly realigns civilian payroll, 62 FTEs and nonpay funding from PE0604764K for the Chief Technology Office (CTO) to promote centralized and coordinated technology policy, direction, standards, and leadership in order to influence technology innovation that meets future DoD requirements. Additionally, funding will perform discovery, research, development and experimentation of emerging and commercial technology to support development and adoption of key technology solutions.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) E65 / *Modeling and Simulation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
E65: *Modeling and Simulation*	70.317	8.458	6.079	7.709	-	7.709	10.555	10.408	10.132	10.333	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 2015	FY 2016	FY 2017
Title: Modeling and Simulation	8.458	6.079	7.709
FY 2015 Accomplishments: Continued EWSE efforts to resolve high-priority technical issues impacting E2E capabilities of DODIN transport, computing services, applications, information assurance (IA), network operations (NetOps) and enterprise services. Analyzed Platform as a Service (PaaS), Infrastructure as a Service (IaaS), Software as a Service (SaaS), Cloud Access Point (CAP), encrypted storage and other cloud computing services to be integrated or interoperated with DoD capabilities. Performed technical assessments for open source alternatives for enterprise email, knowledge management and office automation solutions. Developed enterprise architecture and SysML modeling artifacts for JIE, Defense Enterprise Email 2.0, cyber security architecture and other enterprise services. Examined application of commercial wireless technologies in DODIN to include tactical environments. The results of analysis and examination were socialized with the DoD community for action and adoption. Where appropriate, the results were documented in GIG Technical Profiles (GTP) for compliance by the Programs of Record (POR).			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continued efforts to enhance modeling capabilities that provide DISN IP and Transport Capacity Planning models, modifying tools and processes to reflect the operational DISN architecture and technologies as evolved under Joint Information Environment (JIE) initiatives and technical advances. These enhancements included: (1) preparing for the FY 2017 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise Services and customer needs in DISA program/project decisions and planning (e.g. JIE, Joint Regional Security Stack, (JRSS), and Defense Enterprise Computing Centers); (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for the CYBERCOM and organizations within DISA (4) enhanced modeling tools and techniques to provide inputs to network planning and performance assessments in support of Unified Communications and E2E security goals of the evolving DISN; (5) capacity planning and modeling for data center infrastructure computing and network; and (6) an updated version of the Joint Communications Simulation System (JCSS).			
FY 2016 Plans: Will continue EWSE efforts to resolve high-priority technical issues impacting interoperability of DODIN capabilities in communications, computing services, applications/services, information assurance (IA) and net-centric operations (NetOps). Will analyze/prototype cloud computing services that can be integrated or interoperated with DoD capabilities. Will identify capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyze and evaluate existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and perform technical assessments to develop technical recommendations supporting solution development decisions. Will analyze/prototype cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Will continue to examine application of SDN technologies for Core Data Centers and DISN. Will continue to perform technical assessments for open source alternatives for new technology solutions. Will develop enterprise architecture and SysML modeling artifacts for high priority DISA enterprise services. Will enhance proactive end-to-end performance capabilities, including data collection and tools to support enterprise wide troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR. Will continue efforts to enhance modeling capabilities that will provide DISN IP and Transport Capacity Planning models, modifying tools and processes to reflect the operational DISN architecture and technologies as evolved under Joint Information Environment (JIE) initiatives and technical advances. These enhancements include: (1) preparing for the FY 2018 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise Services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and additional organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
performance assessments in support of Unified Communications and E2E security goals of the evolving DISN; and (5) an updated version of the Joint Communications Simulation System. The decrease of -$2.379 between FY 2015 and FY 2016 is attributable to reduction in research efforts for EWSE; specifically the Service Level Interoperability for Tactical Edge and Core (SLITEC) area. ***FY 2017 Plans:*** Will evolve EWSE and standards efforts to operationalize the E2E performance efforts and distill the standards efforts to support DISA Strategic Initiatives and to resolve high-priority technical issues impacting interoperability of DoDIN capabilities in communications, computing services, enterprise applications/services, information assurance (IA) and net-centric operations (NetOps). Will identify capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyze and evaluate existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and perform technical assessments to develop technical recommendations supporting solution development decisions. Will analyze/prototype cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Will support application and implementation of SDN technologies for Core Data Centers and the DISN. Will continue to enhance end-to-end performance capabilities, including data collection and tools to support enterprise wide troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR. Will continue efforts to enhance modeling capabilities that will provide DISN IP and Transport Capacity Planning models and expand computing infrastructure modeling capabilities, modifying tools and processes to reflect the operational DODIN architecture and technologies as evolved under Joint Regional Security Stacks (JRSS) and the common informational architecture initiatives and technical advances. These enhancements include: (1) preparing for the FY 2019 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and performance assessments in support of Unified Communications and End-to-End (E2E) security goals of the evolving DODIN; (5) capacity planning for data centers infrastructure computing and network; and (6) an updated version of the Joint Communications Simulation System. The increase of +$1.630 between FY 2016 and FY 2017 is due to broadened and enhanced modeling and simulation methodologies to properly identify the network planning and bandwidth sufficiency needs of the evolving DODIN.			
Accomplishments/Planned Programs Subtotals	8.458	6.079	7.709

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PE 0302019K: *Operation & Maintenance, Defense-Wide*	15.731	15.496	15.989	-	15.989	15.606	16.437	16.579	16.911	Continuing	Continuing

Remarks

D. Acquisition Strategy

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 OSD/DISA 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). FFRDCs are also considered depending upon the task.

E. Performance Metrics

DISN core transport bandwidth sufficiency, tied to capacity planning and activation of bandwidth in the DISN optical core to keep at least 25% spare capacity, to allow for provisioning of unforeseen requirements and rerouting under outages.

DISN IP Core bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of DISN IP Core and NIPRNet backbone circuits under 65% during daily peak periods.

DISN SIPRNet bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of SIPRNet backbone circuits under 50% during daily peak periods.

The EWSE projects will be measured by the number of technical studies performed with associated systems engineering artifacts (market research reports, technology assessments, solutions analyses, etc.) that are developed to support DODIN capabilities; and the number of proof-of-concept demonstrations or pilots executed to support viability of the technical approach/recommendation. These products will be coordinated with the stakeholders, users and/or Program Management Offices (PMO) to ensure EWSE provides the right deliverables for solution development decisions.

FY15 actual target (met): 2 technical studies, 7 engineering artifacts, and 2 concept demonstrations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

FY16 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.
FY17 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.

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 Enterprise Activities, the DODIN and DISA applications, as well as engineering capabilities support to programs and projects to address technical and engineering solutions to activities such as information assurance and cyber security; mobility and cloud technologies and warfighter and mission support activities.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) E65 / *Modeling and Simulation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	SS/FFP	OPNET Tech, Inc. : Bethesda, MD	6.108	1.296	Aug 2015	1.600	Aug 2016	1.467	Aug 2017	-		1.467	Continuing	Continuing	Continuing
Product Development 2	C/CPFF	APPTIS : Chantilly, VA	1.689	0.133	Jan 2015	-		-		-		-	Continuing	Continuing	Continuing
Product Development 3	SS/FFP	Noblis : Falls Church, VA	1.312	-		-		-		-		-	Continuing	Continuing	1.312
Product Development 4	C/FFP	Booz Allen, Hamilton : McLean, VA	3.210	0.569	Jan 2015	0.530	Jan 2016	0.658	Jan 2017	-		0.658	Continuing	Continuing	Continuing
Product Development 5	C/FFP	NRL : Washington, DC	0.100	-		-		-		-		-	Continuing	Continuing	0.100
Product Development 6	C/CPFF	Soliel, LLC : Reston, VA	2.852	1.010	Apr 2015	1.025	Aug 2016	-		-		-	Continuing	Continuing	Continuing
Product Development 7	C/FFP	Estrela Tech, LLC : Vienna, VA	2.479	0.326	Jul 2015	-		-		-		-	Continuing	Continuing	Continuing
Product Development 8	C/CPFF	COMPTEL : Arlington, VA	0.926	-		0.335	Jul 2016	-		-		-	Continuing	Continuing	1.261
Product Development 9	C/CPFF	MIT Lincoln Labs : Cambridge, MA	7.040	2.599	Dec 2014	2.205	Dec 2015	2.100	Dec 2016	-		2.100	Continuing	Continuing	Continuing
Product Development 10	MIPR	Various : Various	7.011	0.458	Jan 2015	0.384	Jan 2016	2.532	Jan 2017	-		2.532	Continuing	Continuing	Continuing
Enterprise Wide Systems Engineering 11	C/FFP	Northrop Grumman : Fairfax, VA	1.784	-		-		-		-		-	Continuing	Continuing	1.784
Clear Sky Pilot	C/CPFF	AFRL Terremark : TBD	18.500	-		-		-		-		-	Continuing	Continuing	18.500
Narus	C/CPFF	AFRL : Rome, NY	1.450	-		-		-		-		-	Continuing	Continuing	1.450
Cyber Accelerator	C/CPFF	DTIC : Alexandria, VA	7.516	-		-		-		-		-	Continuing	Continuing	7.516
Commercial Integration Demonstration	C/CPFF	DTIC : Alexandria, VA	2.750	-		-		-		-		-	Continuing	Continuing	2.750
Web Content Filtering: Perimeter Defense Integration	C/FFP	Oberon Associates : Ft. Meade, MD	1.854	-		-		-		-		-	Continuing	Continuing	1.854

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Host Based Security Ops Assessment	C/FFP	Summit Technologies, Inc : Ft Meade, MD	0.700	-		-		-		-		-	Continuing	Continuing	0.700
Secure Configuration Management Ops Assessment	C/FFP	Cyber Security research and Solutions Corp : Ft Meade, MD	0.964	-		-		-		-		-	Continuing	Continuing	0.964
Product Development 11	C/CPFF	Johns Hopkins University Applied Physics Lab : Laurel, MD	-	-		-		0.450	Apr 2017	-		0.450	-	-	-
Engineering Technical Services	MIPR	Various : Fort Meade	-	-		-		0.502	Oct 2016	-		0.502	-	-	-
Cloud Hosted Shared Services	C/FFP	Nisga's Data Systems LLC : Herndon, VA	-	1.350	Jul 2015	-		-		-		-	-	-	-
Cloud/ Gateway Pilot	C/FFP	Alvarez and Associates : Tysons Corner, VA	-	0.304	Sep 2015	-		-		-		-	-	-	-
Cloud/ Gateway Pilot	C/FFP	BY Light Professional IT Services : Arlington, VA	-	0.413	Sep 2015	-		-		-		-	-	-	-
		Subtotal	68.245	8.458		6.079		7.709		-		7.709	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	SS/CPFF	Comptel : Arlington, VA	2.072	-		-		-		-		-	Continuing	Continuing	2.072
		Subtotal	2.072	-		-		-		-		-	-	-	2.072

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	70.317	8.458		6.079		7.709		-		7.709	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

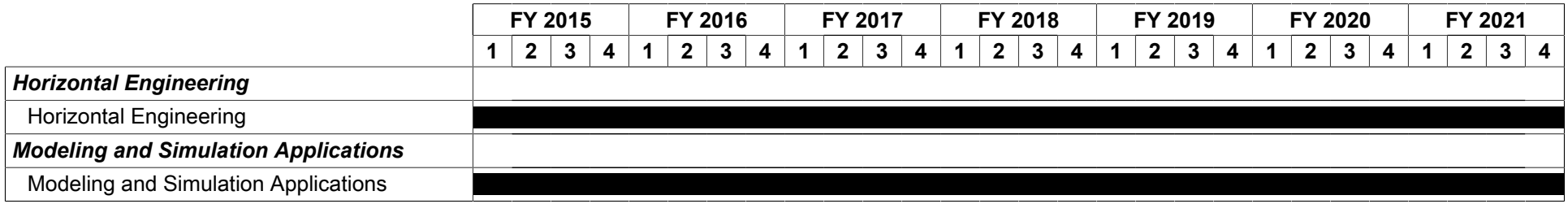

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Horizontal Engineering				
Horizontal Engineering	1	2015	4	2021
Modeling and Simulation Applications				
Modeling and Simulation Applications	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T62: *DoD Information Network (DoDIN) Systems Engineering and Support*	34.429	4.222	4.041	10.332	-	10.332	12.944	12.722	12.315	12.560	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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: Networking, Computing and Storage, Unified Capabilities, Mobility Devices and Applications, Cybersecurity and Network Operations.

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 Department of Defense Chief Information Office (DoD CIO) Capabilities Planning Guidance (CPG) for 2017 – 2021 through the Office of the Chief Technology Officer (OCTO). These strategies will establish the foundation for DISA's technology investments and technical development. The OCTO leverages 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 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)	FY 2015	FY 2016	FY 2017
Title: Department of Defense Information Network (DODIN) Systems Engineering and Support (formerly Global Information Grid (GIG) Systems Engineering and Support)	4.222	4.041	10.332

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017

FY 2015 Accomplishments:
Supported the transition of applications and services to Core Data Centers for Joint Information Environment (JIE) capabilities, concepts and operations. Cloud computing technologies and service delivery models were developed. These technologies included, cyber threat and exploitation vectors and mitigations, full featured Geo-Location Policy Based Mobile Device Management and secure mobile multi user/environment technologies, next generation Software Defined Networks, and supporting concept of operations.

FY 2016 Plans:
CTO will develop the Technology Environment (TE), composed of the technical infrastructure, associated processes, practices, and methodologies that are used to evaluate and characterize new technologies. Within the TE, CTO will continue to perform technical assessments and proof of concepts for key capability portfolios (networking, computing & storage, UC, mobility, cyber security, and network operations). Also included are future cloud computing technologies and innovative service delivery models, mobile devices, application development and vetting best practices, and next generation virtualized Software Defined Networks for automating and virtualizing the DODIN. CTO will continue to partner with commercial partners, academia, technical analysis centers, as well as member organizations within the Intelligence Community, to bring state of the art capabilities to DISA for better communications and monitoring tools, enterprise services and improved end-user services and capabilities. Innovation funds will continue to explore, develop and deliver emerging technologies to the Warfighter. The funding will allow the Department to leverage technology to drive efficiencies and cost saving to DoD, the Warfighter, and other Government Agencies. Technologies including Cloud Services, future infrastructure architectures, Cyber Security, Software Defined Anything, Big Data, cloud computing, mobile computing, mobile applications, wireless will be piloted, matured and developed.

The decrease of -$0.181 between FY 2015 and FY 2016 is attributable to a reduction in collaboration with industry subject matter experts.

FY 2017 Plans:
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 TAF and the Defense Technical Intelligence Report (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 APIs and/or abstractions and global standards for storage services, analytic platform performance baselines of emerging commercial analytic platform products, advanced approaches to COOP in a hybrid cloud environment, and the next generation software defined networks for automating and virtualizing the DODIN.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Will assess and transition technologically relevant and mature solutions, provides smart routing and managed reputation capabilities; Software Symbiotes which provides embedded system defense capabilities; and advanced technologies and protocols that provide resilient and intrustion-tolerant network and messaging capabilities. Will produce requisite cyber measures and ensure optimal use of commercial cloud services through Partnerships with industry, academia, and the Federal sectors. The increase of +$6.291 from FY 2016 to FY 2017 is primarily attributable to the discovery, research, development and experimentation of emerging and commercial technology needed to support the development and adoption of key technological solutions, the realignment of civilian Full-Time-Equivalents (FTEs) and the associated payroll from PE0604764K to promote centralized, coordinated technology policy, direction, standards, and leadership allowing CTO and DISA the ability to influence and promote technology innovation that meets future DoD requirements. In addition, CTO will perform assessment and reconnaissance of emerging technologies.			
Accomplishments/Planned Programs Subtotals	4.222	4.041	10.332

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/PE 0302019K: *Operation & Maintenance, Defense-Wide*	1.835	0.994	2.607	-	2.607	4.890	4.925	5.026	-	Continuing	Continuing

Remarks

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.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

E. Performance Metrics

Number of Technology Assessments

Performance Metrics
Performance is measured by project milestones and the adoption of these technologies into existing Programs of Record (PORs) or as new program offerings to the DoD and intelligence communities. Metrics that will be used include number and percentage of emerging and mature technologies adopted by DISA and DoD, number and percent of technology research and development initiatives and investments in the DoD, peering organizations and industry partners attributable to technology research. These investments and evolution plans identify, promote, channel and align technology research and investments to reduce time to field emerging technologies to satisfy warfighter requirements. See specific metrics below:

Metric: Performance is measured by the number of technologies assessed and the adoption or influence of the technologies assessed on DoD, DISA or IC programs, projects or services. Technologies are identified by many venues to include research and development initiatives, technology watch-lists from various sources (e.g. in-house, peer organizations, industry and/or academic advisors) and commercial product releases that have potential applicability to the warfighter mission area. These measures will allow CTO to align technology research and development with capabilities gaps and needs resulting in improved operational effectiveness and efficiencies.

Measure/Goal: Number of pilot and technology assessments instantiated within the CTO Technical Environment. Number research initiatives designed, developed and demonstrated and transitioned to programs, projects, or services.

FY15 Actual (Met)l: 8 Assessed and 5 transitioned
FY16 Target: 8 Assessed and 5 transitioned
FY17 Target: 8 Assessed and 5 transitioned

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Technical Services	FFRDC	MITRE : McLean, VA	6.042	1.485	Feb 2015	1.484	Oct 2015	1.702	Oct 2016	-		1.702	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	0	0.249	0.249
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	0	1.211	1.211
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	0	1.601	1.601
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	0	11.794	11.794
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	3.250	1.010	Feb 2015	-		-		-		-	0	4.260	4.260
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : TBD	1.212	-		-		-		-		-	0	1.212	1.212
Engineering Technical Services	MIPR	TBD : TBD	3.315	-		-		-		-		-	0	3.315	3.315
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	1.151	0.400	Jan 2015	-		0.400	Jul 2017	-		0.400	Continuing	Continuing	Continuing
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		-		-		-		-	0	0.376	0.376
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	0	0.691	0.691
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.202	-		-		-		-		-	0	0.202	0.202
Product Development	C/FFP	SOLERS : Arlington, VA	0.995	-		-		1.020	Jul 2017	-		1.020	0	2.015	2.015
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	0.500	-		-		-		-		-	0	0.500	0.500
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	0	0.351	0.351

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	0.415	1.327	Oct 2014	1.467	Dec 2015	0.579	Oct 2016	-		0.579	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	IV2: IT Consulting Services, LLC : Jackson, WY	1.074	-		0.650	Oct 2015	-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : TBD	-	-		0.440	Oct 2015	0.154	Oct 2016	-		0.154	Continuing	Continuing	Continuing
Engineering Technical Services	C/CPFF	TIE NEMS: B&D Consulting : TBD	-	-		-		0.417	Oct 2016	-		0.417	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	Tapestry Technologies, INC : TBD	-	-		-		1.212	Mar 2017	-		1.212	Continuing	Continuing	Continuing
Management Services - Civilian Pay	Various	Various : Ft. Meade	-	-		-		4.848	Oct 2016	-		4.848	Continuing	Continuing	Continuing
		Subtotal	34.429	4.222		4.041		10.332		-		10.332	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	34.429	4.222		4.041		10.332		-		10.332	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

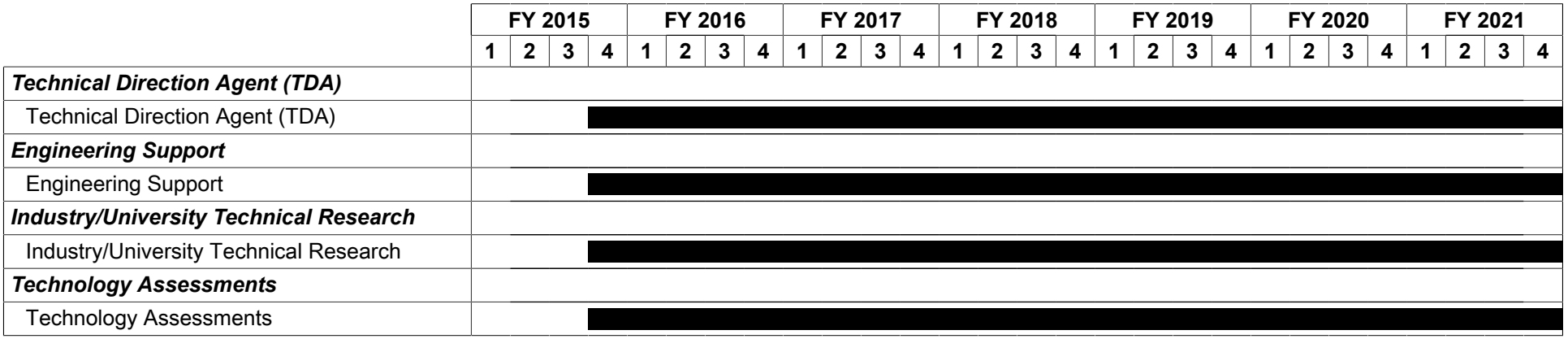

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 / *DoD Information Network (DoDIN) Systems Engineering and Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Technical Direction Agent (TDA)				
Technical Direction Agent (TDA)	4	2015	4	2021
Engineering Support				
Engineering Support	4	2015	4	2021
Industry/University Technical Research				
Industry/University Technical Research	4	2015	4	2021
Technology Assessments				
Technology Assessments	4	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	192.543	26.209	36.830	13.994	-	13.994	14.873	14.354	14.483	14.770	Continuing	Continuing
PC01: *Presidential and National Voice Conferencing/*	53.395	12.176	22.630	3.072	-	3.072	3.277	3.279	3.277	3.276	Continuing	Continuing
T82: *DISN Systems Engineering Support*	139.148	14.033	14.200	10.922	-	10.922	11.596	11.075	11.206	11.494	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Information Systems Network (DISN) is the Department of Defenses (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 Internet Protocol 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; other activities in support of the DRSN communications capabilities.

PNVC: The PVNC provides selected system engineering for continued development and testing of the PNVC equipment for senior leaders. The PNVC system provides a military, satellite-based, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders anywhere in the world as needed. Funding supports the acquisition activities for the PNVC baseband equipment, including critical and essential engineering required to develop new vocoder and cryptographic and audio-summing equipment.

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	25.325	36.883	15.221	-	15.221
Current President's Budget	26.209	36.830	13.994	-	13.994
Total Adjustments	0.884	-0.053	-1.227	-	-1.227
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.053			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	0.884	-	-1.227	-	-1.227

Change Summary Explanation

The increase of $0.884 in FY 2015 is due to increased testing and evaluation activities for DoD Mobility NIPRNet Suite insertion efforts.

The decrease of -$0.053 in FY 2016 is the result of SIPRNet Access Migration (SAM).#

The decrease of -$1.227 in FY 2017 is due to updated cost projections for certification and integration testing support for Mobility Mobile Device Manager (MDM) efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303126K / *Long-Haul Communications - DCS*	Project (Number/Name) PC01 / *Presidential and National Voice Conferencing/*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
PC01: *Presidential and National Voice Conferencing/*	53.395	12.176	22.630	3.072	-	3.072	3.277	3.279	3.277	3.276	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Presidential and National Voice Conferencing (PNVC) (formerly called National Emergency Action Decision Network (NEADN)) provides system engineering, development and testing of the equipment for senior leaders. The PNVC system provides a military satellite-based, world-wide, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders. By implementing new technology capabilities (e.g. Ethernet-Framing and higher data rate), this project provides improved performance to the survivable voice conferencing capability. This project supports the acquisition activities for the PNVC baseband equipment, including engineering required to develop new vocoder, cryptographic and audio-summing equipment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Presidential and National Voice Conferencing (PNVC)	12.176	22.630	3.072
Description: Presidential and National Voice Conferencing (PNVC) Systems Engineering conduct analyses for continuity of NEADN voice conferencing for national/military leaders through PNVC deployment. Program continues engineering, technical analysis, development, and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders.			
FY 2015 Accomplishments: Continued activities to realize successful completion of audio conferencing equipment, Baseband Interface Group (BIG), and baseband kits component development. Initial PNVC Engineering Develop Models (EDMs) and DISA funded pre-production units were tested at various facilities by different organizations. The Joint Interoperability Test Command (JITC) in Ft. Huachuca, AZ secure voice test facility was used to test the audio baseband equipment with the DRSN Switch, and also to test the baseband kits. An Air Force Satellite Communications (SATCOM) testing facility in Colorado Springs, CO was used for air testing. NSA conducted testing of the BIG for cryptologic functions, and testing was completed at JITC in Ft. Huachuca, AZ for interoperability with the rest of the baseband audio equipment.			
FY 2016 Plans: Continue to perform integration and testing of the pre-production units for BIG and the Audio Conferencing Equipment at the JITC and Colorado Springs test facilities. These efforts will lead into the initial testing of the production units. Will also provide systems engineering and testing support to integrate baseband kits to military aircrafts (Air Force E-4B and Navy E-6B).			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 / *Presidential and National Voice Conferencing/*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The increase of $10.454 from FY 2015 to FY 2016 is due to development of airborne variants of the PNVC baseband equipment for Air Force and Navy platforms. New versions of the Multi-stream Summing Device and the Baseband Interface Group are being developed to meet airborne environmental requirements. ***FY 2017 Plans:*** Continue to support PNVC integration and testing and fielding of initial capability and upgrades at PNVC sites. This includes systems engineering and testing support to the various platforms receiving the capability. The decrease of -$19.558 from FY 2016 to FY 2017 is primarily attributed to the one time increase in FY 2016 to complete the airborne variants of the PNVC baseband equipment. The original environmental requirements for the PNVC baseband equipment were changed in FY14 and the original designs were deemed suitable only for ground locations. This necessitated the creation of airborne variants of the baseband equipment to meet the more stringent aircraft requirements of the E-4B and E-6B platforms. The funding for the Engineering Change Proposals (ECPs) to develop the airborne versions came in two increments: an FY15 reprogramming and in FY16 to complete the development.			
Accomplishments/Planned Programs Subtotals	12.176	22.630	3.072

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• Procurement, DW/PE 0303126K: *Procurement, Defense-Wide*	2.301	1.377	1.119	-	1.119	1.261	1.386	1.515	1.546	Continuing	Continuing

Remarks

D. Acquisition Strategy

The audio equipment development activities are incorporated into the sole source DRSN sustainment contract. For the development of the BIG cryptographic device, NSA will perform an assisted acquisition for DISA using a competitively awarded fixed price contract. Engineering support for PNVC is provided by task orders competitively awarded on existing DoD contracts and Federally Funded Research and Development Contracts (FFRDC) support.

E. Performance Metrics

PNVC project metrics track the development status of program acquisition documents, as required by the component executive. These documents include: Project Execution Plan, Concept of Operations Acquisition Strategy, Capability Production Document, System Engineering Plan and other documents required by the DISA's Component Acquisition Executive. Additionally, for management and system engineering support vendors, monthly reports are critical to tracking overall programmatic and engineering progress and the percent of total deliverables received on time.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 / *Presidential and National Voice Conferencing/*

For product development activities, effective progress is measured based upon the task order milestones in the form of development reviews and weekly progress meetings. As end items (hardware and software) become available for test, additional measures will be available. Specifically, the percentage of successfully verified requirements out of the number tested and the number of critical trouble reports outstanding longer than six months, will be tracked.

Performance Metrics:

Project Support Deliverables received on time

FY14 (actual result): 100%
FY15 (expected result): 100%
FY16 (expected result): 100%

Product Deliverable Milestones completed on time

FY14 (actual result): 100%
FY15 (expected result): 100%
FY16 (expected result): 100%

Successfully Tested Requirements:

FY14 (actual result): N/a
FY15 (expected result): 95%
FY16 (expected result): 95%

Critical Trouble Reports > 6 months old

FY14 (actual result): N/a
FY15 (expected result): ≤ 4
FY16 (expected result): ≤ 4

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 / *Presidential and National Voice Conferencing/*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BIG Development Preparation	MIPR	NSA : Various	19.975	6.000	Feb 2015	-		-		-		-	Continuing	Continuing	N/A
MSD-III Development	C/T&M	Raytheon : Largo, FL	11.479	-		-		-		-		-	Continuing	Continuing	N/A
PNVC Baseband Equipment	TBD	Various : Various	3.200	3.017	Apr 2015	-		-		-		-	Continuing	Continuing	N/A
Systems Engineering	FFRDC	Mitre : McLean, VA	0.423	-		-		-		-		-	Continuing	Continuing	N/A
PNVC Baseband Airborne variant ECP	C/CPFF	Raytheon : Largo, FL	11.880	-		20.396	Nov 2015	-		-		-	Continuing	Continuing	N/A
Systems Engineering	C/CPFF	Booz, Allen, Hamilton : McLean, VA	1.200	-		-		-		-		-	0	1.200	1.200
		Subtotal	48.157	9.017		20.396		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C/CPFF	Booz Allen Hamilton : McLean, VA	2.039	2.334	Jan 2015	1.034	Nov 2015	1.109	Nov 2016	-		1.109	Continuing	Continuing	N/A
Systems Engineering	FFRDC	Mitre : McLean, VA	0.450	0.450	Jan 2015	0.450	Nov 2015	0.450	Nov 2016	-		0.450	Continuing	Continuing	N/A
		Subtotal	2.489	2.784		1.484		1.559		-		1.559	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	MIPR	Various : Various	1.624	-		-		0.763	Feb 2017	-		0.763	Continuing	Continuing	Continuing
		Subtotal	1.624	-		-		0.763		-		0.763	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	FFRDC	Aerospace Corporation : Falls Church, VA	1.125	0.375	Dec 2014	0.750	Nov 2015	0.750	Nov 2016	-		0.750	Continuing	Continuing	Continuing
		Subtotal	1.125	0.375		0.750		0.750		-		0.750	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	53.395	12.176		22.630		3.072		-		3.072	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 / *Presidential and National Voice Conferencing/*

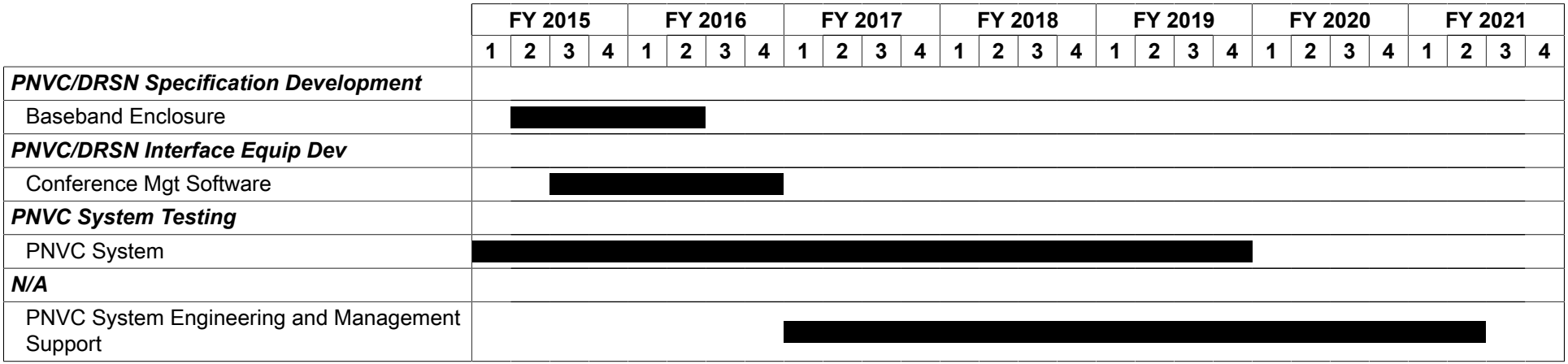

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 / *Presidential and National Voice Conferencing/*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PNVC/DRSN Specification Development				
Baseband Enclosure	2	2015	2	2016
PNVC/DRSN Interface Equip Dev				
Conference Mgt Software	3	2015	4	2016
PNVC System Testing				
PNVC System	1	2015	4	2019
N/A				
PNVC System Engineering and Management Support	1	2017	2	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303126K / *Long-Haul Communications - DCS*	Project (Number/Name) T82 / *DISN Systems Engineering Support*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T82: *DISN Systems Engineering Support*	139.148	14.033	14.200	10.922	-	10.922	11.596	11.075	11.206	11.494	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DISN Systems Engineering Support project encompasses four activities:

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 IP and optical technologies. These new technologies provide protected and assured services for mobility and 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: 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: IP & Optical Transport (a component of Tech Refresh)	0.000	3.389	3.162
FY 2015 Accomplishments: No planned accomplishment.			
FY 2016 Plans: Purchase and test commercially available components to replace end of life/obsolete equipment deployed on the DISN. Focus will be on optical and IP routers, switches and Communications Security (COMSEC) equipment. Will also continue functionality testing of 100G-capable commercial components with a focus on streamlining the overall DISN architecture profile.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The increase of +$3.389 from FY 2015 to FY 2016 results from increased requirements to evaluate Optical Network Solutions. ***FY 2017 Plans:*** The test and evaluation of technologies required to meet the needs of the evolving DISN. The decrease of -$0.227 from FY 2016 to FY 2017 is due to a reduction in technical evaluation activities.			
Title: DISN OSS ***FY 2015 Accomplishments:*** No planned accomplishment. ***FY 2016 Plans:*** No planned accomplishment. ***FY 2017 Plans:*** Will develop web services in support of Information Sharing Services. The increase of +$0.764 from FY 2016 to FY 2017 is due to an increase in web service development.	0.000	0.000	0.764
Title: Peripheral and Component Design ***FY 2015 Accomplishments:*** Continued to support regular design and development of upgrades and replacements for various components of Defense Red Switch Network (DRSN) Multi-Level Secure Voice Systems to deal with changing user requirements and technology end of life issues for components and peripherals. One switch circuit card and one peripheral were addressed in FY 2015. ***FY 2016 Plans:*** Perform integration and testing of the production units of switch IP Media cards (developed in FY12-14) to ensure compatibility with Voice Over Internet Protocol (VoIP)/ Voice Over Secure Internet Protocol (VoSIP) capabilities. Continue Engineering Change Proposal (ECP) effort from FY2015 to modify software to support full capabilities in to improve reliability and performance supporting transition to IP trunking between switches. The increase of +$0.603 from FY 2015 to FY 2016 is due to integration and testing of IP Media cards. ***FY 2017 Plans:*** Support ECP for upgrades to National Conference Management capabilities to incorporate new software updates and changes driven by user feedback and improve performance. Also fund modifcations needed to support line side IP services as part of time Division multiplexing (TDM) elimination efforts.	1.291	1.894	2.565

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The increase of +$0.671 from FY 2016 to FY 2017 is due to increased ECP activities and increased contract requirements for ECPs.			
Title: Mobility	12.742	8.917	4.431
FY 2015 Accomplishments: DoD Mobility efforts included tech insertion and deployment of two Device Mobile Classified Capability (DMCC) gateways OCONUS which included Top Secret (TS) and Secret capabilities in the Pacific and Southwest Asia. In addition, tech insertion of TS data at two CONUS sites, St. Louis, MO and San Antonio, TX were completed. DoD Mobility evaluated and tested the centralized mobility management components for the Classified Components. Efforts to be tested and evaluated included centralization of the mobile device hardware, software, and middleware, and the Mobile Device Management (MDM) capabilities integration efforts realizing efficiencies across the DoD Mobile Enterprise. Testing and Evaluation of DoD Mobility NIPRNet Suite insertion efforts included mobile VPN and authentication, mobile devices and mobile applications. Testing and Evaluation of mobile devices included prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, mobile applications were tested and evaluated after purchase to ensure mobile applications are verified and validated prior to hosting on the Enterprise Mobile Application Store (MAS).			
FY 2016 Plans: Funds support tech insertion and deployment of two DMCC gateways which will include Top Secret (TS) and Secret capabilities in the remaining CONUS and OCONUS areas requiring gateways to ensure adequate load balancing of mobile device usage on the DoD Mobility Architecture. Will also support evaluation of tech insertion of classified and unclassified data at multiple sites both CONUS and OCONUS. DoD Mobility will evaluate and test the centralized mobility management components for the classified components. Funds will provide support for test and evaluation (T&E) of centralization of the mobile device hardware, software, middleware, and MDM associated capabilities integration efforts. Will provide for T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts to include mobile VPN and authentication, mobile devices, and mobile applications. Will provide for T&E of mobile devices including prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, funds will support T&E of mobile applications to ensure Mobile Applications are verified and validated prior to hosting on the MAS. Will support testing of commercial mobile devices and certification and accreditation approval. Funds will support quarterly testing and evaluation of various mobile initiatives; follow up testing against the Mobile Device Management (MDM); verification and validation testing of devices used against the MDM; and requirements testing to ensure Mobility's requirements have been met. DoD Mobility will continue to evolve detailed Implementation Plans, Concept of Operations and Standard Operating Procedures for DMCC Capabilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The decrease of -$3.825 from FY 2015 to FY 2016 represents the planned program reduction attributed to decreased gateway/ thin client, service certification assurance requirements, and testing requirements as the DoD Mobility Unclassified Capability (DMUC) continues to mature post Initial Operating Capability (IOC). ***FY 2017 Plans:*** DoD Mobility will continue to evaluate and test the centralized mobility management components for the classified components and support T&E of centralization of the mobile device hardware, software, middleware, and MDM capabilities. T&E of mobile devices includes prototypes for next generation classified devices and assured interoperability for new commercial mobile devices. T&E of mobile applications ensures mobile applications are verified and validated prior to hosting on the MAS. T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts includes mobile VPN and authentication, verification and validation testing of devices used against the MDM, and requirements testing to ensure Mobility's requirements have been met. The decrease of -$4.486 from FY 2016 to FY 2017 is due to planned program reductions as a result of completing pre-fielding for TS and Secret, certification and testing requirements as the DMCC continues to mature. Testing and fielding certification reductions are tied to the fielding of mobile device hardware, software, middleware, and MDM associated capabilities integration efforts.			
Accomplishments/Planned Programs Subtotals	14.033	14.200	10.922

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M/PE0303126K: *Operation & Maintenance, Defense-Wide*	56.055	61.246	35.685	-	35.685	39.040	37.426	37.522	38.259	Continuing	Continuing
• Procurement/PE0303126K: *Procurement, Defense-Wide*	72.429	139.921	99.928	-	99.928	115.194	116.958	117.993	117.993	Continuing	Continuing

Remarks

D. Acquisition Strategy

Products acquired for 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 NASA enterprise equipment contracting vehicle when necessary and applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
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The Internet Protocol (IP) enabling of the DRSN DSS-2A switch, Secure voice conference management improvements, 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.
Products acquired for 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 NASA enterprise equipment contracting vehicle when necessary and applicable.

The Internet Protocol (IP) enabling of the DRSN DSS-2A switch, Secure voice conference management improvements, 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.

E. Performance Metrics

Funds support tech insertion and deployment of two DMCC gateways which will include Top Secret (TS) and Secret capabilities in the remaining CONUS and OCONUS areas requiring gateways to ensure adequate load balancing of mobile device usage on the DoD Mobility Architecture. Will also support evaluation of tech insertion of classified and unclassified data at multiple sites both CONUS and OCONUS. DoD Mobility will evaluate and test the centralized mobility management components for the classified components. Funds will provide support for test and evaluation (T&E) of centralization of the mobile device hardware, software, middleware, and MDM associated capabilities integration efforts. Will provide for T&E of DoD Mobility NIPRNet & SIPRNet Suite insertion efforts to include mobile VPN and authentication, mobile devices, and mobile applications. Will provide for T&E of mobile devices including prototypes for next generation classified devices and additional commercial mobile devices to test their interoperability across the enterprise. Additionally, funds will support T&E of mobile applications to ensure mobile applications are verified and validated prior to hosting on the MAS. Will support testing of commercial mobile devices and certification and accreditation approval. Funds will support quarterly testing and evaluation of various Mobile Initiatives; follow up testing against the Mobile Device Management (MDM); verification and validation testing of devices used against the MDM; and requirements testing to ensure Mobility's requirements have been met. DoD Mobility will continue to evolve detailed Implementation Plans, Concept of Operations and Standard Operating Procedures for DMCC Capabilities.

FY 2015 (Actual): 100% successful test of new mobile devices authenticated against the Mobile Device Management, as well as, all mobile applications that are approved and available for hosting in the Mobile Application Store and interoperable across the DoD Mobility architecture. 100% successful test of technology insertion and infrastructure components with successful deployment within the DoD Mobility Architecture.

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FY 2016 (Estimated): 100% successful developmental and production testing by the PMO of new-model commercial mobile devices authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of 85% of mobile applications requested to be approved and made available in the hosted Mobile Application Store. 100% successful integration testing of the enterprise security ecosystem into existing Mobility infrastructure and development and production testing of infrastructure components, including additional gateway instances supporting unclassified, secret, and top secret domains, and Mobile Device Management for the top secret domain, with successful deployment within the DoD Mobility architecture.

FY 2017 (Estimated): 100% successful developmental and production testing of new-model commercial mobile devices per product baseline, per carrier, per platform authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of at least of 85% of mobile applications requested to be approved and available in the hosted Mobile Application Store. 100% successful production testing of the applications development framework and integration testing for infrastructure components, including additional gateway instances supporting secret and top secret domains as well as any COTS component technology refresh requirements against the end-to-end architecture.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon : Florida	8.744	1.291	Mar 2015	1.894	Feb 2016	2.565	Feb 2017	-		2.565	Continuing	Continuing	Continuing
Systems Engineering for IP Enabling DSS-2A Secure Voice Switch	C/T&M	Raytheon : Florida	21.440	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering &Technical Services for Information Sharing Services for Voice	C/T&M	SAIC : VA	2.774	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	Various : VA	2.026	-		-		-		-		-	Continuing	Continuing	Continuing
Single Sign On	C/T&M	SAIC : Various	1.397	-		-		-		-		-	Continuing	Continuing	Continuing
System Engineering for VoSIP	C/T&M	Various : Various	1.218	-		-		-		-		-	Continuing	Continuing	Continuing
Space Vehicle Upload	SS/CPFF	Iridium : McLean, VA	12.635	-		-		-		-		-	Continuing	Continuing	Continuing
Gateway Improvement	SS/CPFF	Iridium : McLean, VA	13.565	-		-		-		-		-	Continuing	Continuing	Continuing
Field Application Tool	MIPR	NSWC : Dahlgren	6.635	-		-		-		-		-	Continuing	Continuing	Continuing
DTCS Handset	SS/CPFF	Iridium : McLean, VA	5.850	-		-		-		-		-	Continuing	Continuing	Continuing
Command and Control Handset	SS/CPFF	Iridium : McLean, VA	7.275	-		-		-		-		-	Continuing	Continuing	Continuing
Alt. Supplier Development	MIPR	NSWC : Dahlgren, VA	3.450	-		-		-		-		-	Continuing	Continuing	Continuing
Radio Only Interface	MIPR	NSWC : Dahlgren, VA	2.525	-		-		-		-		-	Continuing	Continuing	Continuing
Remote Control Unit	SS/CPFF	Iridium : McLean, VA	2.100	-		-		-		-		-	Continuing	Continuing	Continuing
Type 1 Security	SS/CPFF	Iridium : McLean, VA	6.455	-		-		-		-		-	Continuing	Continuing	Continuing
Vehicle Integration	MIPR	NSWC : Dahlgren, VA	3.185	-		-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	8.717	-		-		-		-		-	Continuing	Continuing	-
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis : VA	1.168	-		-		-		-		-	-	-	-
System Engineering and Technical Services for ISOM	Various	DITCO : Various	2.915	-		-		-		-		-	-	-	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.822	-		-		-		-		-	-	-	-
Gateways - Mobility	TBD	TBD : TBD	3.529	3.578	Jan 2015	-		-		-		-	-	-	-
Thin Client Solution - Mobility	TBD	TBD : TBD	1.300	0.250	Nov 2014	0.804		-		-		-	-	-	-
New Field Communications	C/FFP	TBD : TBD	0.550	0.000	Jan 2015	-		-		-		-	-	-	-
National Conference Management	MIPR	USAF : Ratheon	4.514	-		-		-		-		-	-	-	-
IP Enable DRSN	MIPR	USAF : Ratheon	1.562	-		-		-		-		-	-	-	-
HEMP Phone Development	TBD	Raytheon : TBD	0.869	-		-		-		-		-	-	-	-
100G Optical	TBD	TBD : TBD	0.337	-		-		-		-		-	-	-	-
Defense Production Act III Optical Networking	TBD	TBD : TBD	-	-		3.442		-		-		-	-	-	-
DoD Mobility Capability Service Assurance	C/FFP	TBD : TBD	-	1.416	Jan 2015	1.265		-		-		-	-	-	-
		Subtotal	127.557	6.535		7.405		2.565		-		2.565	-	-	-

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IT Support - Mobility	C/FFP	Arieds, LLC : Ft. Meade	2.300	-		-		-		-		-	-	-	-
NS2 SE Support - Mobility	C/FFP	APPTIS : Ft. Meade	0.311	-		-		-		-		-	-	-	-
IT Support - Mobility	Various	TBD : TBD	3.000	0.000	Jan 2015	-		-		-		-	-	-	-
		Subtotal	5.611	0.000		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	Various	JITC : Various	2.450	3.104		2.265	Oct 2015	1.593	Oct 2016	-		1.593	Continuing	Continuing	Continuing
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	1.530	2.180	Oct 2014	1.932	Oct 2015	0.897	Oct 2016	-		0.897	-	-	-
Integration, Test ann Modification - Mobility	Various	TBD : TBD	2.000	2.214	Nov 2014	2.598	Nov 2015	1.941	Nov 2016	-		1.941	-	-	-
Tech Refresh/Functionality Testing	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
Tech Refresh/Functionality Testing	MIPR	Naval Observatory : MA	-	-		-		-		-		-	-	-	Continuing
OSS/Functionality-Configuration	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
DISN Tech Refresh	TBD	TBD : TBD	-	-		-		3.926	Jan 2017	-		3.926	-	-	-
		Subtotal	5.980	7.498		6.795		8.357		-		8.357	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303126K / *Long-Haul Communications - DCS*	Project (Number/Name) T82 / *DISN Systems Engineering Support*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	139.148	14.033		14.200		10.922		-		10.922	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

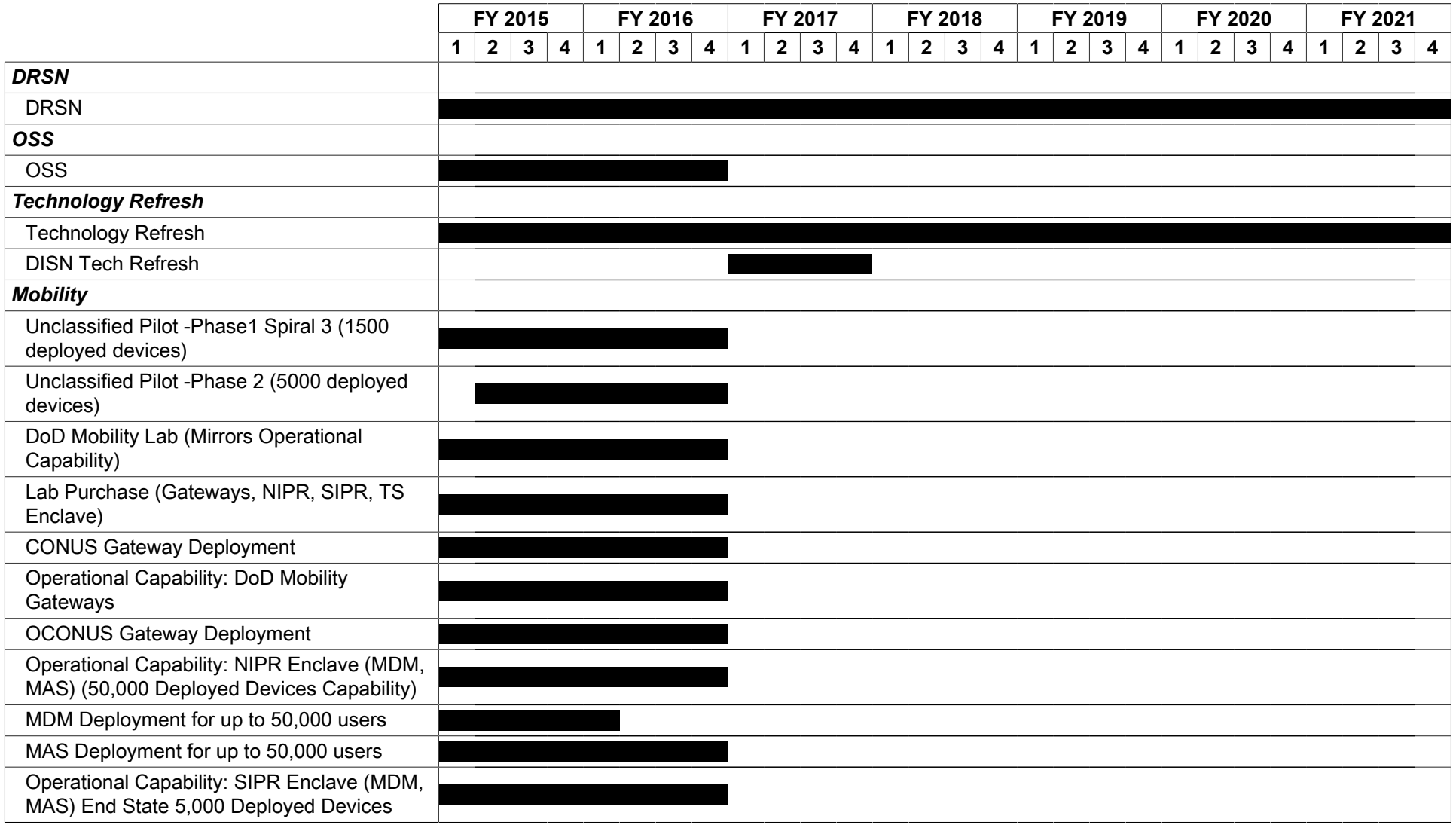

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

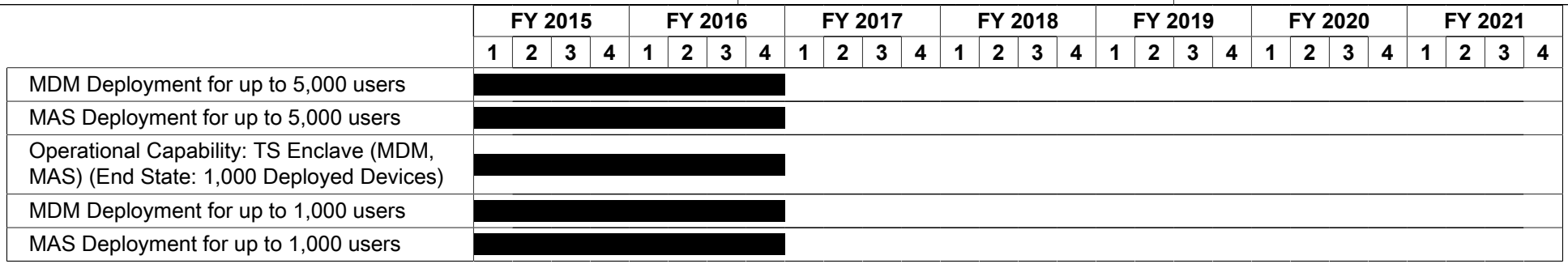

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DRSN				
DRSN	1	2015	4	2021
OSS				
OSS	1	2015	4	2016
Technology Refresh				
Technology Refresh	1	2015	4	2021
DISN Tech Refresh	1	2017	4	2017
Mobility				
Unclassified Pilot -Phase1 Spiral 3 (1500 deployed devices)	1	2015	4	2016
Unclassified Pilot -Phase 2 (5000 deployed devices)	2	2015	4	2016
DoD Mobility Lab (Mirrors Operational Capability)	1	2015	4	2016
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2015	4	2016
CONUS Gateway Deployment	1	2015	4	2016
Operational Capability: DoD Mobility Gateways	1	2015	4	2016
OCONUS Gateway Deployment	1	2015	4	2016
Operational Capability: NIPR Enclave (MDM, MAS) (50,000 Deployed Devices Capability)	1	2015	4	2016
MDM Deployment for up to 50,000 users	1	2015	1	2016
MAS Deployment for up to 50,000 users	1	2015	4	2016
Operational Capability: SIPR Enclave (MDM, MAS) End State 5,000 Deployed Devices	1	2015	4	2016
MDM Deployment for up to 5,000 users	1	2015	4	2016
MAS Deployment for up to 5,000 users	1	2015	4	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Operational Capability: TS Enclave (MDM, MAS) (End State: 1,000 Deployed Devices)	1	2015	4	2016
MDM Deployment for up to 1,000 users	1	2015	4	2016
MAS Deployment for up to 1,000 users	1	2015	4	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	127.810	12.671	13.735	12.206	-	12.206	14.893	14.967	14.606	14.898	Continuing	Continuing
T64: *Special Projects*	60.737	5.197	5.170	5.207	-	5.207	5.198	5.309	5.309	5.416	Continuing	Continuing
T70: *Strategic C3 Support*	67.073	7.474	8.565	6.999	-	6.999	9.695	9.658	9.297	9.482	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)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	12.671	13.735	13.915	-	13.915
Current President's Budget	12.671	13.735	12.206	-	12.206
Total Adjustments	0.000	0.000	-1.709	-	-1.709
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-1.709	-	-1.709

Change Summary Explanation

Classified

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 / *Special Projects*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T64: *Special Projects*	60.737	5.197	5.170	5.207	-	5.207	5.198	5.309	5.309	5.416	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 2015	FY 2016	FY 2017
Title: Special Projects	5.197	5.170	5.207
FY 2015 Accomplishments: Classified.			
FY 2016 Plans: Classified.			
FY 2017 Plans: Classified			
Accomplishments/Planned Programs Subtotals	5.197	5.170	5.207

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Classified.

E. Performance Metrics

Classified.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 / *Special Projects*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering & Integration	C/CPFF	Verizon : Arlington, VA	60.737	5.197	Dec 2014	5.170	Dec 2015	5.207	Dec 2016	-		5.207	Continuing	Continuing	Continuing
		Subtotal	60.737	5.197		5.170		5.207		-		5.207	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	60.737	5.197		5.170		5.207		-		5.207	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 / *Special Projects*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Classified																												
Classified	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 / *Special Projects*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Classified				
Classified	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	Project (Number/Name) T70 / *Strategic C3 Support*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T70: *Strategic C3 Support*	67.073	7.474	8.565	6.999	-	6.999	9.695	9.658	9.297	9.482	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports the mission of the Nuclear Command, Control, and Communications (NC3) Systems Engineer to the Joint Staff and Executive Leadership. It also provides NC3 expertise to the Department of Defense (DoD) Chief Information Officer (CIO) National Leadership Command Capability (NLCC) Management Office. Systems Analysis supports long range planning and vulnerability assessments to ensure the NC3 System is adequate under all conditions of stress or war and recommends investment strategies to evolve the Nuclear Command and Control System to achieve desired capabilities. Operational Assessments of fielded systems and weapon platforms provide the sole means for verification of NC3 systems' performance in support of plans and procedures, operation orders, training, equipment, and end-to-end system configuration. Assessments provide strategic and theater level C3 interfaces into the NC3 System. Supporting efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense and strategic and theater forces. Systems Engineering provides the Senior Leadership C3 System with technical and management advice, planning and engineering support, and Test & Evaluation. Leading Edge Command, Control, Communications, Computers, and Intelligence technology is assessed for all communication platforms supporting executive travelers and senior leaders to include the interoperability of hardware and operational procedures. These technology elements support the President's and other DoD command centers and aircraft (e.g., Air Force One and the National Airborne Operations Center).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Systems Analysis	2.370	0.000	0.000
FY 2015 Accomplishments: Made updates for the NLCC Program Tracking Report, the NC3 System Description and Architecture Diagrams and the NC3 Scenarios document. Supported engineering, documenting, and assessing the current NC3 implementation architectures and identifying system vulnerabilities; further expanding the NC3 future architecture and development of a robust investment roadmap to support the overall NLCC mission of the Joint Systems Engineering and Integration Office (JSEIO) and communications capabilities of the Senior DOD decision makers.			
FY 2016 Plans: N/A The decrease of -$2.370 from FY 2015 to FY 2016 reflects the realignment of various JSEIO engineering/ technical efforts towards an integrated construct that provides holistic Systems Engineering, Analysis, and Architecture support.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
N/A			
Title: Operational Assessments ***FY 2015 Accomplishments:*** Planned and executed of recurring operational assessments of the NC3 System. ***FY 2016 Plans:*** N/A The decrease of -$3.382 from FY 2015 to FY 2016 reflects the realignment of various JSEIO engineering/ technical efforts towards an integrated construct that provides holistic Systems Engineering, Analysis, and Architecture support. ***FY 2017 Plans:*** N/A	3.382	0.000	0.000
Title: Systems Engineering ***FY 2015 Accomplishments:*** Provided systems engineering for airborne command centers and other command aircraft communications systems. Continued development of the Senior Leadership C3 System (SLC3S) System Description documents. ***FY 2016 Plans:*** N/A The decrease of -$1.722 from FY 2015 to FY 2016 reflects the realignment of various JSEIO engineering/ technical efforts towards an integrated construct that provides holistic Systems Engineering, Analysis, and Architecture support. ***FY 2017 Plans:*** N/A	1.722	0.000	0.000
Title: Systems Engineering, Analysis and Architecture ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** Implement a portfolio management and configuration control construct to facilitate integration and modernization of continuity of operations/continuity of government (COOP/COG), NC3 and Senior Leader Command, Control, and Communications Systems	0.000	8.565	6.999

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(SLC3S) capabilities that modernize and increase NLCC performance requirements. Continue updates for the Program Tracking Report, NC3 Architecture Diagrams and NC3 Scenarios document to improve NLCC capabilities. Develop engineering solutions and documentation to improve NLCC future capabilities as well as perform operational assessments of the communication platforms to identify performance, operational and any potential vulnerabilities. Expand NLCC future architecture and roadmap to identify return on investment constructs and improve/modernize NLCC capabilities. The increase of +$8.565 from FY 2015 to FY 2016 was the result of a realignment of various JSEIO engineering/ technical program-focused efforts towards a single effort focused on the development of integrated holistic Systems Engineering, Analysis, and Architecture support to ensure tightly coupled solutions. ***FY 2017 Plans:*** Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development. The decrease of -$1.566 from FY 2016 to FY 2017 is a result of decreased end-to-end user assessments for Senior Leader communications and mission effectiveness and a reduction in engineering activities supporting the transition of NLCC future capalities to full operational capability.			
Accomplishments/Planned Programs Subtotals	7.474	8.565	6.999

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, PE 0303131K: *O&M*	13.629	15.366	19.160	-	19.160	26.809	27.017	27.200	27.684	Continuing	Continuing

Remarks

D. Acquisition Strategy

Full and open competition resulted in contract vehicles with Raytheon, Arlington, VA; Science Applications Int'l Corporation (SAIC), McLean, VA; and Pragmatics, Mclean, VA.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

E. Performance Metrics

Performance is measured by compliance with contract deliverables schedules for specifically included products, such as: operational assessment plans, operational reports; revisions to the Joint Staff's Emergency Action Procedures (EAP-CJCS) Volumes VI and VII; NC3 System Description documents, and Nuclear C3 Architecture Diagrams. In addition, performance of the Nuclear C3 System is directly measured by the operational assessments funded by this program element. These periodic assessments evaluate the connectivity used for the five functions of Nuclear command and control: Situation Monitoring, Planning, Decision Making, Force Execution, and Force Management. Assessment results are used by the Joint Staff to direct changes in system engineering and integration, programmatic execution, and training.

Specific performance metrics include the following:

Provide engineering products in all task areas that satisfy DoD/CIO and Joint Staff needs within allocated resources 90% of the time.

Conduct assessments of the NC3 system and the SLC3S that provide actionable results and recommendations for the Joint Staff and DoD/CIO to pursue improvements to these capabilities 90% of the time.

MEECN achieved all its FY 2015 performance metrics and is on track to achieve the FY 2016 and FY 2017 targets of provisioning the Joint Staff requirements within the allocated resources 90% of the time.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering 1	C/CPAF	SAIC : McLean, VA	15.196	2.432	Aug 2015	2.432	Aug 2016	1.639	Aug 2017	-		1.639	Continuing	Continuing	Continuing
Systems Engineering 2	C/CPAF	Raytheon Company : Arlington, VA	28.965	3.293	Feb 2015	3.342		-		-		-	Continuing	Continuing	Continuing
Systems Engineering 3	C/CPFF	Pragmatics : McLean, VA	10.080	-		-		-		-		-	0	10.080	10.080
Systems Engineering 4	C/FP	Raytheon Company : Arlington, VA	6.059	1.749	Feb 2015	1.749	Feb 2016	4.419	Feb 2017	-		4.419	Continuing	Continuing	Continuing
Systems Engineering 5	C/CPFF	BAH : Falls Church, VA	4.273	-		-		-		-		-	0.00	4.273	4.2.73
Systems Engineering 6	C/CPFF	Harris Corporation : Melbourne, FL	2.500	-		-		-		-		-	0.00	2.500	2.500
Systems Engineering 7	C/CPAF	Carson Engineering : Bethesda, MD	-	-		1.042	Jun 2016	-		-		-	Continuing	Continuing	Continuing
System Engineering 8	C/FFP	MITRE Corp : McLean, VA	-	-		-		0.941	Sep 2017	-		0.941	Continuing	Continuing	Continuing
		Subtotal	67.073	7.474		8.565		6.999		-		6.999	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	67.073	7.474		8.565		6.999		-		6.999	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

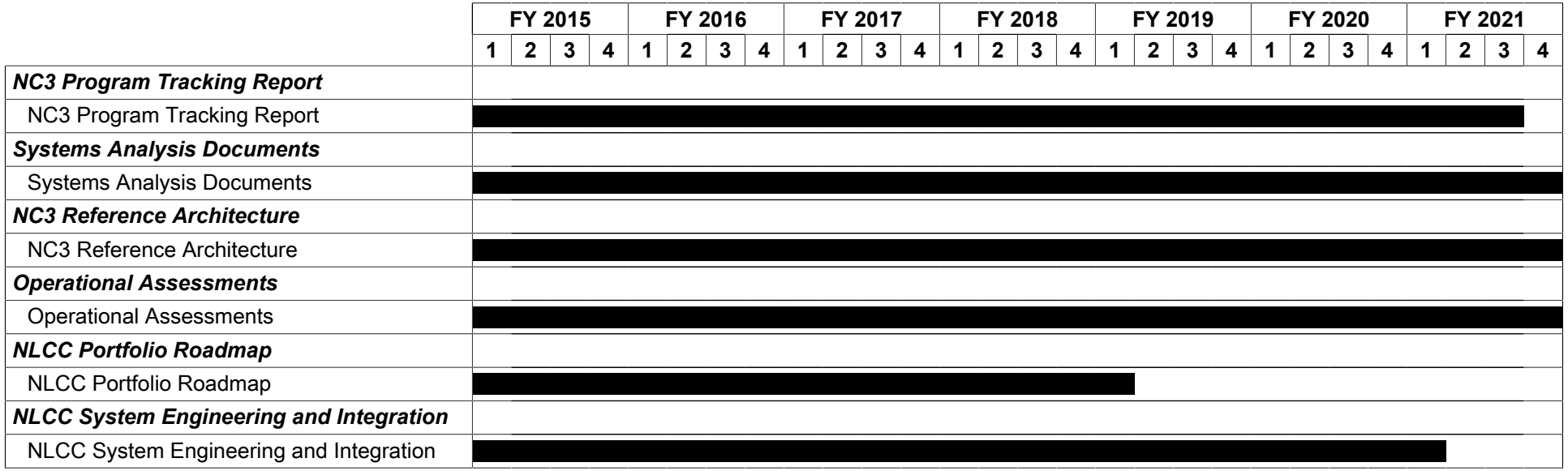

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NC3 Program Tracking Report				
NC3 Program Tracking Report	1	2015	3	2021
Systems Analysis Documents				
Systems Analysis Documents	1	2015	4	2021
NC3 Reference Architecture				
NC3 Reference Architecture	1	2015	4	2021
Operational Assessments				
Operational Assessments	1	2015	4	2021
NLCC Portfolio Roadmap				
NLCC Portfolio Roadmap	1	2015	1	2019
NLCC System Engineering and Integration				
NLCC System Engineering and Integration	1	2015	1	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0303150K / *Global Command and Control System*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	460.160	30.536	21.503	24.438	-	24.438	19.554	19.043	19.148	19.371	Continuing	Continuing
CC01: *Global Command and Control System-Joint (GCCS-J)*	460.160	30.536	21.503	24.438	-	24.438	19.554	19.043	19.148	19.371	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Global Command and Control System-Joint (GCCS-J) funds a Joint Command and Control (JC2) portfolio which includes: GCCS-J, Joint Planning and Execution Services (JPES), and JC2 Architecture.

The GCCS-J Program is the Department of Defense (DoD) Joint C2 system of record. It incorporates core planning and assessment tools required by Combatant Commanders and their subordinate Joint Task Force Commanders while meeting the readiness support requirements of the Services. GCCS-J is used by all nine Combatant Commands (COCOMs) at sites around the world, supporting joint and coalition operations. The Services rely heavily on GCCS-J components to reduce their command and control (C2) operational costs. It provides support for commanders and staffs as they conduct joint and multinational operations by providing a fused picture of the battle space within an integrated system that is supporting joint warfighter needs today. GCCS-J is currently focused on sustainment, synchronization, and modernization to meet emerging operational needs by modifying and enhancing elements or capabilities in order to implement new requirements, enhance functionality, increase efficiency and lower operating and deployment costs while taking advantage of the progress made by current operational systems and technologies. The GCCS-J program is also executing incremental modernization of C2 capabilities using the Joint Requirements Oversight Council (JROC) approved needs.

JPES is a portfolio of capabilities supporting joint policies, processes, procedures, and reporting structures. It is supported by communications and information technology used by the Joint Planning and Execution Community (JPEC). JPEC uses these capabilities to monitor the following activities: planning, execute mobilization, deployment, employment and sustainment, redeployment, and demobilization. At full maturity, the JPES capabilities will be integrated with other adaptive planning and execution systems to facilitate the rapid development and sustainment of plans and a seamless, dynamic transition to execution in a net-centric environment. One of the key capabilities residing within the JPES portfolio of sustaining the existing Joint Operational Planning and Execution System (JOPES) while modernization of JOPES is planned and implemented. The JPES portfolio also includes a core set of infrastructure services consisting of the JPES Framework (JFW) and a variety of mission applications to include Joint Force Projection (JFP), Joint Capabilities Requirements Manager (JCRM) and eventually the capabilities that will replace JOPES.

JC2 Architecture is a reference architecture that aligns closely to the DoD Information Enterprise Architecture. The JC2 Architecture describes architectural and operational concepts, technical constructs, and is a repository for valuable reference information relating to C2 standards and information security. It is the authoritative source of information and technical direction for the JC2 arena.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	33.793	21.503	11.314	-	11.314
Current President's Budget	30.536	21.503	24.438	-	24.438
Total Adjustments	-3.257	0.000	13.124	-	13.124
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-3.257	0.000	13.124	-	13.124

Change Summary Explanation

The FY 2015 decrease of -$3.257 is due to delayed development of modernized JPES user tools into the end of FY 2016 and FY 2017.

The FY 2017 increase of +$13.124 will provide continued improvements/expansion of JPES Framework services and enhanced system administration tools for monitoring and managing the JFW infrastructure, new data services in support of modernizing the old JOPES user tools.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303150K / *Global Command and Control System*	Project (Number/Name) CC01 / *Global Command and Control System-Joint (GCCS-J)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
CC01: *Global Command and Control System-Joint (GCCS-J)*	460.160	30.536	21.503	24.438	-	24.438	19.554	19.043	19.148	19.371	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global Command and Control System – Joint (GCCS-J) is DoD's Joint Command and Control (JC2) system of record and provides the foundation for migration of service-unique C2 systems into a Joint, interoperable environment. The Defense Information System Agency's (DISAs) portfolio includes funding to support GCCS-J, Joint Planning and Execution Services (JPES), and the development and sustainment of the JC2 Architecture. GCCS-J incorporates the core planning and assessment tools required by combatant commanders and their subordinate Joint Task Force Commanders while meeting the readiness support requirements of the Services. Adaptive Planning and Execution Joint Planning Services are being developed to modernize the adaptive planning functions in a net centric environment. DISA continues to provide support for the operational system to ensure continued access to information integration and decision-support capabilities that enable the exercise of authority and direction over assigned and attached forces, in a net-centric, collaborative information environment. Additionally, DISA provides critical C2 capabilities to the Commander-in-Chief, Secretary of Defense, National Military Command Center, Combatant Commands (COCOMs), Joint Force Commanders, and Service Component Commanders.

JPES is a set of capabilities that address components of the DOD's Adaptive Planning Roadmap (13 December 2005) and Adaptive Planning Roadmap II (5 March 2008). JPES produces enhancements to the Joint Operations Planning and Execution System (JOPES), focused adaptive planning capabilities, and provides a set of core infrastructure services necessary to provide the warfighter a fully interoperable environment where functionality can be easily added as mission needs dictate.

The JC2 Architecture is a foundational element of JC2 capabilities for the Department. The JC2 Architecture provides a set of net-centric tenets associated with data, functional service and the C2 infrastructure that describes architectural and operational concepts, technical constructs, and is a repository for valuable reference information relating to C2 standards and information security. Each year, the DISA architecture team, annually, produces a transitional architecture that documents the current state of C2 capabilities, anticipated changes/enhancements either in progress or planned by the JC2 community.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Development and Strategic Planning	18.082	11.305	10.330
Description: 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: • Continue to decompose applicable existing applications into services • Limit local deployment and move as much to the enterprise as possible • Continue to expose data and scale services to support an enterprise implementation			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Continue to evolve more economical hardware and software architecture without impact to the operational user or Family of Systems (FoS)/interface partners • Reduce overall sustainment cost through use of more cost effective and appropriate Commercial-off-the-Shelf (COTS) and Hardware (HW) products • Evolve to use of agile development practices • Consolidation of clients and tools ***FY 2015 Accomplishments:*** The GCCS-J program conducted numerous efforts focused on maintaining an operational and viable Command and Control (C2) capability for the Warfighter. The program completed software development for several major GCCS-J Modernization components to include GCCS-J Global v6.0, GCCS-J Global v4.3U1 with a new version of the Joint Targeting Toolbox (JTT), Agile Client FW 5.0.x, Data Virtualization Layer Phase I, Modernized Web-client, and GCCS-J Communications Management). Additionally, the Agile Client team developed and released a new version of the Agile Client Framework and plugins, to include the initial release of Intelligence plugins and the Force Protection Monitoring and Warning Tool. In the area of Foreign Military Sales (FMS), the program provided software updates to coalition partners through our FMS cases with New Zealand, Canada, Australia, Japan, and Korea. ***FY 2016 Plans:*** The GCCS-J program will continue to update and execute the GCCS-J Modernization planning guidance based on lessons learned, operational priorities, and updated DoD guidance. These updates will support the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities. Planned activities include the fielding of Global 6.0, completion of Agile Client Release 7(R7), and significant forward progress on development of the Data Virtualization Layer (DVL) Modernization Architecture in MilCloud. The decrease of -$6.777 from FY 2015 to FY 2016 is a result of the transition of GCCS-J Block V 4.3 baseline from development to continued sustainment. ***FY 2017 Plans:*** The GCCS-J program will continue to update and execute the GCCS-J Modernization planning guidance based on lessons learned, operational priorities, and updated DoD guidance. These updates will support the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities. Planned activities include award of a Development and Modernization contract that will focus on transitioning the GCCS-J to an open standards architecture deployable in a variety of operational environments (i.e. local, cloud, mobile, etc). This effort will include development of GCCS-J capabilities to enhance functionality, implement new requirements, increase efficiency, and lower operating and deployment costs through the employment of new and emerging technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The decrease of -$0.975 from FY 2016 to FY 2017 is the result of a reduction in performance benchmarking, information and knowledge engineering, custom application development, and product integration supporting GCCS-J Block V 6.0 development as it transitions into sustainment.			
Title: Joint Planning and Execution Services (JPES) ***Description:*** 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 JPEC. JPEC uses these capabilities to monitor, plan, and execute: mobilization, deployment, employment, sustainment, redeployment, and demobilization activities associated with joint operations. ***FY 2015 Accomplishments:*** Developed eight software releases and produced several technical documents supporting JOPES modernization activities. Of the eight software releases, two supported enhancements to the infrastructure services layer; five supported the requirements of the global force management community to the Joint Capabilities Requirements Manager (JCRM) and Preferred Force Generator (PFG) tools; and one release supported the modernization of the JOPES end user toolsets. ***FY 2016 Plans:*** Continue improvements/expansion of JFW services providing additional data services to support integration with external systems, performance enhancements, reliability & maintainability, backwards compatibility for legacy systems, and replacement for the legacy newsgroups service. Development of the modernized JOPES user tools will begin in FY16. The decrease of -$2.256 from FY 2015 to FY 2016 is the result of delayed modernization efforts for JOPES user tools to the end of FY 2016 and carrying into FY 2017 for completion. ***FY 2017 Plans:*** Continue improvements/expansion of JFW services providing enhanced system administration tools for monitoring and managing the JFW infrastructure, new data services in support of modernizing the JOPES user tools, support to legacy systems moving off of JOPES to the modernized JFW architecture, development of a business logic service and migration of JOPES legacy business logic into this new service. The increase of +$3.910 from FY 2016 to FY 2017 is due to continued improvements/expansion of tools supporting JFW services that will allow the Joint Staff Support Center (JSSC) to increased functionality, including the ablity to operate JFW independently and troubleshoot issues as they arrive.	12.454	10.198	14.108
Accomplishments/Planned Programs Subtotals	30.536	21.503	24.438

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PE 0303150K: *Operation & Maintenance, Defense-Wide*	89.819	78.620	83.416	-	83.416	86.219	92.415	93.315	95.142	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. 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. Both GCCS-J and JPES apply formal acquisition rigor to include reporting requirements, as appropriate, by acquisition program designation.

E. Performance Metrics

Activity: Effectively communicate with external command and control systems

FY 2015 (Actual): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.
FY 2016 (Estimated): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.
FY 2017 (Estimated): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.

Activity: Fuse select C2 capabilities into a comprehensive, interoperable system eliminating the need for inflexible, duplicative, stovepipe C2 systems.

FY 2015 (Actual): Successful fielding of GCCS-J Global Release 5.0 to designated Critical Sites
FY 2016 (Estimated): Successful fielding of GCCS-J Global Release 6.0 to designated Critical Sites
FY 2017 (Estimated): Successful fielding of GCCS-J Global Release 6.0 to remaining Sites

Activity: Development of JOPES Modernization

FY 2015 (Actual): Sucessfully developed 8 software releases and produced several technical documents supporting Joint Operation Planning & Execution System (JOPES) modernization activities- 100%
FY 2016 (Estimated): Successfully complete the development of JFW services providing additional data services to support integration with external systems, performance enhancements, reliability & maintainability, backwards compatibility for legacy systems, and replacement for the legacy newsgroups service.. FY16 Estimated: 100%

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

FY 2017 (Estimated): Sucessfully complete improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services . FY17 Estimated: 100%

Activity: Modernize GCCS-J infrastructure components to reduce overall costs (COTS & HW), increase scalability and performance through shift to enterprise deployment. Reduce release cycles through agile development and deployment.

FY 2015 (Actual): N/A
FY 2016 (Estimated): Achieve Fielding Decision Review (FDR) for Global Release 6.0. FY16 Estimated: 100%
FY 2017 (Estimated): Achieve Fielding Decision Review (FDR) for Data Virtualization Layer Phase III. FY17 Estimated: 100%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	C/CPFF	NGMS : Reston, VA	20.289	-		-		-		-		-	0.00	20.289	20.289
Product Development 2	FFRDC	MITRE : McLean, VA	7.077	-		-		-		-		-	0.00	7.077	7.077
Product Development 3	SS/FFP	Dynamic Systems : Los Angeles, CA	3.189	-		-		-		-		-	0.00	3.189	3.189
Product Development 4	C/CPFF	Pragmatics : McLean, VA	31.239	-		-		-		-		-	0.00	31.239	31.239
Product Development 6	C/CPIF	BAH : McLean, VA	3.369	-		-		-		-		-	0.00	3.369	3.369
Product Development 7	C/CPIF	JPES Framework : Various	19.554	-		-		-		-		-	0.00	19.554	19.554
Product Development 8	C/CPFF	RTB Development : Various	13.116	-		-		-		-		-	0.00	13.116	13.116
Product Development 9	C/CPFF	IGS Development : Various	12.398	-		-		-		-		-	0.00	12.398	12.398
Product Development 10	C/CPFF	SAIC : Falls Church, VA	4.826	-		-		-		-		-	0.00	4.826	4.826
Product Development 11	MIPR	SSC : San Diego, CA	13.317	-		-		-		-		-	0.00	13.317	13.317
Product Development 12	C/CPFF	NGMS : Reston, VA	62.514	4.500	Dec 2014	-		-		-		-	0.00	67.014	67.014
Product Development 13	MIPR	NGIT : Various	1.772	-		-		-		-		-	0.00	1.772	1.772
Product Development 14	C/CPFF	NGMS : Reston, VA	72.817	-		8.764	Feb 2016	8.718	Feb 2017	-		8.718	Continuing	Continuing	Continuing
Product Development 15	C/CPIF	Booz Allen Hamilton : McLean, VA	3.283	-		-		-		-		-	0.00	3.283	3.283
Product Development 16	C/CPFF	Booz Allen Hamilton : Various	3.685	-		-		-		-		-	0.00	3.685	3.685
Product Development 17	C/CPAF	Booz Allen Hamilton : Falls Church, VA	1.229	-		-		-		-		-	0.00	1.229	1.229
Product Development 18	C/CPAF	AB Floyd : Alexandria, VA	12.477	-		-		-		-		-	0.00	12.477	12.477
Product Development 19	C/CPAF	Femme Comp Inc : Chantilly, VA	7.249	-		-		-		-		-	0.00	7.249	7.249

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 20	C/CPFF	SAIC : Falls Church, VA	5.876	-		-		-		-		-	0.00	5.876	5.876
Product Development 21	C/CPIF	Booz Allen Hamilton : McLean, VA	5.865	-		-		-		-		-	0.00	5.865	5.865
Product Development 22	MIPR	JDISS : Various	6.039	-		-		-		-		-	0.00	6.039	6.039
Product Development 23	C/FFP	NGMS : Reston, VA	4.790	-		-		-		-		-	0.00	4.790	4.790
Product Development 24	MIPR	SPAWAR : Charleston, SC	8.534	1.500	May 2015	-		-		-		-	0.00	10.034	10.034
Product Development 25	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS : Various	5.710	-		-		-		-		-	0.00	5.710	5.710
Product Development 26	C/CPAF	Tactical 3-D COP : Various	3.200	-		-		-		-		-	0.00	3.200	3.200
Product Development 27	SS/FFP	JITC : Various	20.400	-		-		-		-		-	0.00	20.400	20.400
Product Development 28	C/CPFF	TBD - JCRM : TBD	5.000	-		1.800	Apr 2016	1.800	Sep 2017	-		1.800	Continuing	Continuing	Continuing
Product Development 30	C/CPFF	TBD : TBD	-	4.422	Jun 2015	1.000	Sep 2016	5.208	Sep 2017	-		5.208	Continuing	Continuing	Continuing
Product Development 31	C/TBD	TBD : TBD	-	3.798	May 2015	1.569	Apr 2016	-		-		-	Continuing	Continuing	Continuing
Product Development 32	C/CPFF	TBD : TBD	-	-		-		-		-		-	0.00	0.00	0.00
Product Development 33	C/TBD	TBD : TBD	-	4.673	Mar 2015	-		-		-		-	0.00	4.673	4.673
Engineering Services and Integration 29	SS/FFP	TBD : Various	3.009	3.773	Jun 2015	-		-		-		-	0.00	6.782	6.782
I3 Engineering Services & SW Development	C/TBD	NGIT : Various	1.811	-		-		-		-		-	0.00	1.811	1.811
Product Development 29	TBD	JOPES modernization : TBD	2.043	-		2.400	Sep 2016	5.805	Oct 2016	-		5.805	Continuing	Continuing	Continuing
		Subtotal	365.677	22.666		15.533		21.531		-		21.531	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support 1	C/T&M	Oracle : Various	1.003	-		-		-		-		-	0.00	1.003	1.003
Support 2	C/CPFF	JC2 Common Interface : Various	4.808	-		-		-		-		-	0.00	4.808	4.808
Support Costs - Engineering Support 3	FFRDC	MITRE : Various	0.754	-		-		-		-		-	0.00	0.754	0.754
Support Costs - Engineering Support 4	C/CPFF	Pragmatics : McLean, VA	3.799	-		-		-		-		-	0.00	3.799	3.799
Support Costs - Engineering Support 5	C/CPFF	IPA : College Park, MD	0.283	-		-		-		-		-	0.00	0.283	0.283
Support Cost 6	C/FFP	STA : Falls Church, VA	2.122	0.650	Sep 2015	-		-		-		-	0.00	2.772	2.772
Support Costs	C/CPFF	TBD : TBD	-	3.700	Sep 2015	-		0.857	Sep 2017	-		0.857	0.00	4.557	4.557
Support Cost 7	TBD	Pragmatics : McLean, VA	0.064	-		3.500	Sep 2016	-		-		-	Continuing	Continuing	Continuing
		Subtotal	12.833	4.350		3.500		0.857		-		0.857	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 1	C/TBD	SAIC : Falls Church, VA	0.744	-		-		-		-		-	0.00	0.744	0.744
Test & Evaluation 2	MIPR	JITC : Ft. Huachuca, AZ	26.315	2.050	Sep 2014	1.200	Sep 2015	1.500	Sep 2017	-		1.500	Continuing	Continuing	Continuing
Test & Evaluation 3	MIPR	DIA : Various	7.224	1.000	Oct 2014	0.800	Jun 2016	0.080	Jun 2017	-		0.080	Continuing	Continuing	Continuing
Test & Evaluation 4	MIPR	DAA : Various	2.342	0.470	Oct 2014	0.470	Jun 2016	0.470	Jun 2017	-		0.470	Continuing	Continuing	Continuing
Test & Evaluation 5	C/CPFF	SAIC : Falls Church, VA	9.681	-		-		-		-		-	0.00	9.681	9.681
Test & Evaluation 6	C/CPAF	SAIC : Falls Church, VA	23.133	-		-		-		-		-	0.00	23.133	23.133

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 7	C/CPFF	Pragmatics : McLean, VA	0.308	-		-		-		-		-	0.00	0.308	0.308
Test & Evaluation 8	MIPR	JITC : Various	0.005	-		-		-		-		-	0.00	0.005	0.005
Test & Evaluation 9	MIPR	JITC : Various	0.897	-		-		-		-		-	0.00	0.897	0.897
Test & Evaluation 10	MIPR	DISA FSO : Various	1.059	-		-		-		-		-	0.00	1.059	1.059
Test & Evaluation 11	MIPR	TEMC Test Support : Various	0.229	-		-		-		-		-	0.00	0.229	0.229
Test & Evaluation 12	MIPR	DISA TEMC : Falls Church, VA	0.971	-		-		-		-		-	0.00	0.971	0.971
Test & Evaluation 13	MIPR	STRATCOM : Offut, NE	1.155	-		-		-		-		-	0.00	1.155	1.155
Test & Evaluation 14	MIPR	DISA FSO : Falls Church, VA	1.200	-		-		-		-		-	0.00	1.200	1.200
Test & Evaluation 15	C/CPFF	TQI : Falls Church, VA	1.698	-		-		-		-		-	0.00	1.698	1.698
Test & Evaluation 16	C/CPFF	TQI : Falls Church, VA	0.494	-		-		-		-		-	0.00	0.494	0.494
Test & Evaluation 17	MIPR	Slidell : Various	0.436	-		-		-		-		-	0.00	0.436	0.436
		Subtotal	77.891	3.520		2.470		2.050		-		2.050	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	MIPR	SSC Atlantic : Charleston, SC	3.759	-		-		-		-		-	0.00	3.759	3.759
		Subtotal	3.759	-		-		-		-		-	0.000	3.759	3.759

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
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	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	460.160	30.536		21.503		24.438		-		24.438	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

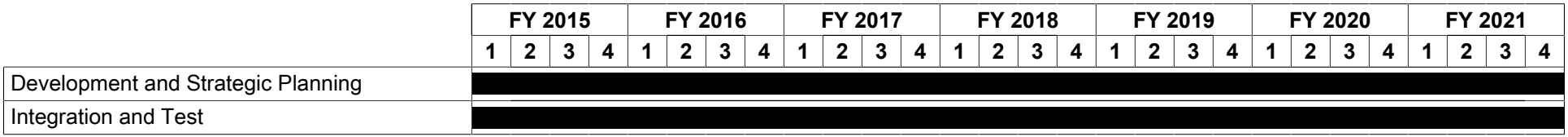

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303150K / *Global Command and Control System*	**Project (Number/Name)** CC01 / *Global Command and Control System-Joint (GCCS-J)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Development and Strategic Planning	1	2015	4	2021
Integration and Test	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	138.658	13.614	20.298	13.197	-	13.197	9.539	9.892	10.007	10.206	Continuing	Continuing
JS1: *Joint Spectrum Center*	138.658	13.614	20.298	13.197	-	13.197	9.539	9.892	10.007	10.206	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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	13.393	20.342	17.091	-	17.091
Current President's Budget	13.614	20.298	13.197	-	13.197
Total Adjustments	0.221	-0.044	-3.894	-	-3.894
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	0.221	-0.044	-3.894	-	-3.894

Change Summary Explanation

The increase of +$0.221 in FY 2015 supported engineering efforts within the GEMSIS Program.

The decrease of -$0.044 in FY 2016 will reduce Spectrum Technology and Test Initiative enhancements supporting Spectrum Engineering Analysis and Relocation efforts.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*

The FY 2017 decrease of -$3.894 results in the elimination of the DoD Electromagnetic Environmental Effects (E3) program; including Hazards of Electromagnetic Radiation Ordnance (HERO) surveys, acquisition program reviews, and development of spectrum management techniques for emerging spectrum technologies.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303153K / *Defense Spectrum Organization*	Project (Number/Name) JS1 / *Joint Spectrum Center*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
JS1: *Joint Spectrum Center*	138.658	13.614	20.298	13.197	-	13.197	9.539	9.892	10.007	10.206	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 2015	FY 2016	FY 2017
Title: Advanced Spectrum Tools	0.948	0.883	0.883
Description: 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 2015 Accomplishments: Focused on hosting SRRAC v2.0 and the spectrum supportability risk assessment tool on Secure Internet Protocol Router (SIPR) Net, and further developed capabilities to support situational awareness of spectrum use at the strategic and joint operational level to include coordination and integration with evolving Joint Electromagnetic Spectrum Operations (JEMSO) capabilities. This new version of the JSDR software implemented a new data exchange format, data quality assessment capability, Universal query and Federated data capabilities, as well as a cross domain solution for data exchange with external DSO customers.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Enhancements to Spectrum Technology and Test Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools. The decrease of -$0.065 from FY 2015 to FY 2016 is a reduction to the planned enhancements to Spectrum Technology and Test Initiative in support of Spectrum Engineering Analysis and Relocation efforts. ***FY 2017 Plans:*** 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.			
Title: DoD Electromagnetic Environmental Effects (E3) Program	2.627	4.405	0.000
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 2015 Accomplishments:*** Initiated conversion of the JOERAD to a web-based capability. Conducted Joint Ordnance Commanders Group (JOCG) HERO Subgroup meetings and supported the JOCG Executive Committee. Developed ordnance susceptibility data records and performed quality data inspections for use in ordnance deconfliction. Conducted eight forward HERO surveys for the COCOMs/ Services. Conducted CONUS base emitter surveys for ordnance safety database validation and updated the DoD ordnance radio frequency (RF) safety requirements. Updated Military Handbook (MIL-HDBK) 235 Electromagnetic Environment (EME) Profiles to address blue force jammer environment. Continued to implement the DoD E3 Program on behalf of OSD in support of system acquisitions. Reviewed approximately 400 JCIDS and Information Support Plan (ISP) documents assigned by the Joint Staff and DoD Chief Information Officer (CIO). ***FY 2016 Plans:*** Will convert the JOERAD to a web-enabled application compliant with the Standard Spectrum Resource Format. Will conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services'			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
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. The increase of +$1.778 from FY 2015 to FY 2016 will support complete conversion of JOERAD to a web-enabled application and conversion to Standard Spectrum Resource Format (SSRF) compliancy. Will fully enable development and maintenance of the Services' HERO susceptibility data records and performance of data quality inspections. In addition, will enable the update of MIL-HDBK-235, "EME Profiles" and EME profiles to address blue force jammer and electronic warfare environments. ***FY 2017 Plans:*** N/A The decrease of -$4.405 from FY 2016 to FY 2017 is due to the elimination of the DoD E3 program. Hazards of HERO surveys will be eliminated for Forward Deployed Forces, Ordnance suscepibility information will not be updated, and acquisition program reviews will cease. DSO will no longer develop spectrum management techniques for emerging spectrum technologies.			
Title: Emerging Spectrum Technologies (EST) ***Description:*** 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. ***FY 2015 Accomplishments:***	1.807	3.318	3.251

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Matured the enabling concepts, processes, standards, and architectures for the application of DSA and other promising sharing methods to meet DoD's growing spectrum requirements. Coordinated and collaborated with operational, policy/regulatory, and technology oriented stakeholders. ***FY 2016 Plans:*** Will focus on collaboration with the Science and Technology community (including Assistant Security Defense for Research and Engineering (ASDR&E), Service Labs and Defense Advanced Research Projects Agency (DARPA)) to develop and begin execution of 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. The DSA Spectrum Management Roadmap will be updated to include application of DSA in spectrum sharing scenarios. An initial set of Joint standard ontologies for spectrum operations will be developed. The increase of +$1.511 from FY 2015 to FY 2016 will continue efforts to improve spectrum sharing capabilities through DSA. ***FY 2017 Plans:*** 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. The decrease of -$0.067 from FY 2016 to FY 2017 will slightly reduce collaboration efforts with Science and Technology communities in developing spectrum technology roadmaps.			
Title: Global Electromagnetic Spectrum Information System (GEMSIS)	8.232	11.692	9.063
Description: 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. ***FY 2015 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Improved/enhanced user interface and delivered the Spectrum dashboard to enable quick access to information and capabilities. GEMSIS fielded Spectrum XXI Online (SXXIO) Full Operational Capability (FOC) and deployed the enhanced Joint Spectrum Data Repository (JSDR) Initial Operational Capability (IOC) at a DISA Enterprise Service Center (ESC). Integration efforts included implementation of SXXIO v2.3, Stepstone v2.1, JSDR and other services. ***FY 2016 Plans:*** GEMSIS Increment Two develops and implements the Integrated Spectrum Desktop enhanced capabilities with integration of improved frequency assignment and spectrum management tools and web services from JSDR, SXXIO, End to End Spectrum Supportability (E2ESS), and Coalition Joint Spectrum Management Tool (CJSMPT). Will improve/enhance user interface and deliver the Spectrum dashboard to enable quick access to information and capabilities. Integation efforts will include implementation of E2ESS (Host Nation Spectrum Worldwide Database Online (HNSWDO) and Stepstone capabilities combined), SXXIO, JSDR, and CJSMPT maintenance and version releases and other enterprise service integration into the Integrated Spectrum Desktop. The increase of +$3.460 from FY 2015 to FY 2016 is due to the realignment of funding from Advanced Spectrum Tools to rebaseline GEMSIS that will support continued improvements in the quality and completeness of spectrum data and will provide enhanced access to information and capabilities. This includes implementation and version releases for Stepstone, JSDR, SXXIO, ISD capabilities. ***FY 2017 Plans:*** Continue efforts to enhance the Integrated Spectrum Desktop capabilities and improve the JSDR, SXXIO, E2ESS, and CJSMPT to improve user interface within ISD. Integration efforts will continue with E2ESS, SXXIO, JSDR, and CJSMPT maintenance and version releases into the ISD. The decrease of -$2.629 from FY 2016 to FY 2017 returns program to planned funding levels to support the development of the backward capable frequency assignment capability through the integration of SXXIO and SXXI Legacy.			
Accomplishments/Planned Programs Subtotals	13.614	20.298	13.197

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/PE 0303153K: *O&M, DW*	33.862	33.135	33.014	-	33.014	36.408	35.707	36.072	36.067	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

D. Acquisition Strategy

Engineering support services are provided by the use of a contract. No in-house government capability exists, nor is it practical to develop one that can provide the expertise necessary to fulfill the mission and responsibilities of DSO. Full and open competition was used for the current contract with EXELIS, Inc. GEMSIS' acquisition approach is to obtain capabilities by adopting existing capabilities, buying commercial products, or developing new capabilities by delivering incrementally within the context of a streamlined and adaptive acquisition approach.

E. Performance Metrics

1. Provide engineering support to DoD Components to ensure E3 and spectrum supportability requirements are addressed during the acquisition life-cycle meeting at least 90% of program suspenses.
2. Execute effective emerging spectrum technologies evaluation process that generates timely and relevant products evaluating at least 3 technologies per quarter.
3. Provide technical E3 and spectrum engineering support upon request from the Combatant Commands, their components and the Military Services with a minimum 98% response rate.
4. Develop an operational Joint spectrum management system that delivers at least 90% of products on schedule in accordance with objective scheduled events and deliverables as approved in the Acquisition Program Baseline- Schedule Status of systems.

All metric results are classified.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303153K / *Defense Spectrum Organization*	Project (Number/Name) JS1 / *Joint Spectrum Center*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services 1	C/CPIF	EXELIS, Inc. : Herndon, VA	124.639	12.040	Oct 2014	18.989	Oct 2015	11.876	Oct 2016	-		11.876	Continuing	Continuing	Continuing
Technical Engineering Services 2	MIPR	Various : Various	3.560	0.967	Oct 2014	1.004	Oct 2015	1.016	Oct 2016	-		1.016	Continuing	Continuing	Continuing
		Subtotal	128.199	13.007		19.993		12.892		-		12.892	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	MIPR	JTIC : Ft. Huachuca	2.312	-		-		-		-		-	0.00	2.312	2.312
		Subtotal	2.312	-		-		-		-		-	0.000	2.312	2.312

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	FFRDC	MITRE : Ft. Monmouth, NJ	8.147	0.607	Oct 2014	0.305	Oct 2015	0.305	Oct 2016	-		0.305	Continuing	Continuing	Continuing
		Subtotal	8.147	0.607		0.305		0.305		-		0.305	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	138.658	13.614		20.298		13.197		-		13.197	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

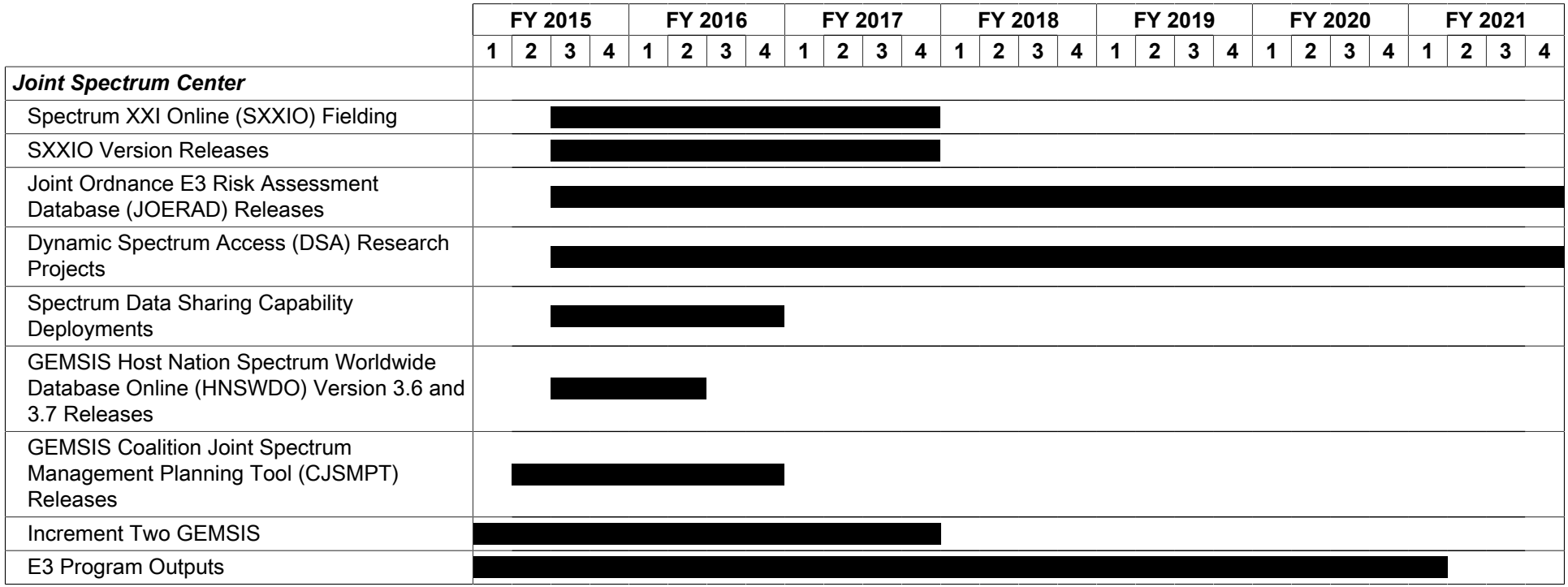

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Spectrum Center				
Spectrum XXI Online (SXXIO) Fielding	3	2015	4	2017
SXXIO Version Releases	3	2015	4	2017
Joint Ordnance E3 Risk Assessment Database (JOERAD) Releases	3	2015	4	2021
Dynamic Spectrum Access (DSA) Research Projects	3	2015	4	2021
Spectrum Data Sharing Capability Deployments	3	2015	4	2016
GEMSIS Host Nation Spectrum Worldwide Database Online (HNSWDO) Version 3.6 and 3.7 Releases	3	2015	2	2016
GEMSIS Coalition Joint Spectrum Management Planning Tool (CJSMPT) Releases	2	2015	4	2016
Increment Two GEMSIS	1	2015	4	2017
E3 Program Outputs	1	2015	1	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	244.892	3.774	0.444	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
T57: *Net-Centric Enterprise Services (NCES)*	244.892	3.774	0.444	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Program Executive Office Enterprise Services (PEO-ES) provides a portfolio of enterprise level services that enable communities of interest and mission applications to make their data and services visible, accessible, and understandable to other anticipated and unanticipated users. The continually expanding portfolio of enterprise services supports 100 percent of the active duty military and Government civilians; 258 thousand embedded contract personnel; 75 percent of the active Guard and Reserve; and 25 percent of the Guard and Reserve users. This meets the Department's requirement to support 2.5 million users on the Sensitive but Unclassified (SBU) Internet Protocol (IP) Data network and 300 thousand users on the Secret IP Data network. The portfolio of services continues to expand through the transition of local services to the Department of Defense (DoD) enterprise and providing enhanced functionality that allows DoD personnel to go anywhere within the DoD, login, and be productive, the implementation of an access control infrastructure that enables secure information sharing throughout the DoD, and the integration of pre-planned product improvements to existing enterprise services keeping them relevant to the end-users' missions.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.774	0.444	0.000	0.000	0.000
Current President's Budget	3.774	0.444	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

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303170K / *Net-Centric Enterprise Services (NCES)*	Project (Number/Name) T57 / *Net-Centric Enterprise Services (NCES)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
T57: *Net-Centric Enterprise Services (NCES)*	244.892	3.774	0.444	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 Program Executive Office Enterprise Services (PEO-ES) continues to expand their portfolio of services that currently includes the core capabilities delivered by the Net-Centric Enterprise Services (NCES) Program, with a resilient and flexible access control infrastructure that enables strong authentication for secure information sharing in the Department of Defense (DoD), and the identification, transitioning, and operationalization of local services into the larger DoD enterprise. Critical warfighter, Business, and Intelligence Mission Area services within the portfolio include an enterprise collaboration capability supporting over 900,000 DoD users, Enterprise Search that exposes data sources throughout the DoD, Service Oriented Architecture Foundation supporting a robust Enterprise Messaging service that provides producers the ability to publish one message that, in turn, can be distributed to hundreds of end-points supporting the subscribers to that information and a critical enterprise authoritative data source service that supports the user's need to identify and use authoritative data and services. The portfolio also includes the Strategic Knowledge Integration Web (SKIWeb) providing decision and event management support to all levels of a widespread user-base that ranges from the Combatant Commanders to the Joint Staff to Coalition partners on the Secret Internet Protocol (IP) Data network; DoD Visitor that allows personnel to "go anywhere within the DoD, login, and be productive;" the DoD Enterprise Portal Service that provides users with a flexible web-based hosting solution to create and manage mission, community, organization, and user focused sites; and privilege management Authentication Gateway Services (AGS) that is integrated with the Identity and Access Management services supporting brokered Public Key Infrastructure (PKI) authentication for DoD applications without a native PKI authentication capability. The individual suite of capabilities within the portfolio of services provides the user with the flexibility to couple the services in varying ways to support their mission needs. This flexibility provides unprecedented access to web and application content, critical imagery, intelligence and warfighter information, and temporarily stores critical data in a secure environment. The portfolio of enterprise services delivers tangible benefits to the Department by providing capabilities that are applied by US Forces, Coalition forces, and Allied forces to support full spectrum joint and expeditionary campaign operations. These enabling benefits include the ability to:

- Enhance collaborative decision-making processes
- Improve information sharing and integrated situational awareness
- Share and exchange knowledge and services between enterprise units and commands
- Share and exchange information between previously unreachable and unconnected sources
- Schedule and coordinate meetings with people across the DoD Components
- "Go anywhere in the DoD, login, and be productive"
- Create and manage mission, community, organization, and user-focused sites from global locations
- Exchange knowledge to enable situational awareness, determine the effects desired, select a course of action, the forces to execute it, and accurately assess the effects of that action

The portfolio contains capabilities that are also key enablers to the Defense Information Systems Agency's (DISA) mission of providing a global net-centric Enterprise infrastructure in direct support of joint Warfighter, National level leaders, and other mission and Coalition partners across the full spectrum of operations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Test and Evaluation	3.774	0.444	0.000
FY 2015 Accomplishments: Provided support for the operational testing and evaluation of enterprise services and unified capabilities used in the Joint Information Environment and the transitioning of local services into the DoD enterprise infrastructure. Supported operational testing, modeling and simulation, or technical evaluation of technologies required to support source selection activities. Supported the continuing analysis of industry standards and specifications for enhancements and added functionality to existing operational enterprise services to keep them current with evolving technologies.			
FY 2016 Plans: Will provide support for the operational testing and evaluation of enterprise services and unified capabilities used in the Joint Information Environment and the transitioning of local services into the Department of Defense (DoD) enterprise infrastructure. Supports operational testing, modeling and simulation, or technical evaluation of technologies required to support source selection activities. Will also support the continuing analysis of industry standards and specifications for enhancements and added functionality to existing operational enterprise services to keep them current with evolving technologies. The decrease of -$3.330 from FY 2015 to FY 2016 is the result of decreased testing requirements primarily due to completing the development, transition, and testing of the replacement Defense Enterprise Collaboration service.			
FY 2017 Plans: N/A The decrease of -$0.444 from FY 2016 to FY 2017 is attributed to the reduction of contractor support due to the completion of Defense Enterprise Collaboration operational test and evaluation requirements.			
Accomplishments/Planned Programs Subtotals	3.774	0.444	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/PE 0303170K: *O&M, DW*	92.791	91.033	36.400	-	36.400	38.074	37.734	38.110	38.857	Continuing	Continuing
• Procurement, DW/PE 0303170K: *Procurement, DW*	1.921	1.819	1.793	-	1.793	1.820	1.828	1.844	1.881	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

D. Acquisition Strategy

The portfolio of services is leveraging portions of the acquisition approach approved for the NCES Program. Based on the approved NCES acquisition strategy, the portfolio will adopt proven specifications, best practices, and interface definitions to adopt or buy new network-based services or applications that are delivered, hosted, and managed in accordance with Service Level Agreements (SLAs) and that ensure available, reliable, and survivable services to support the warfighter's mission. The portfolio is using a streamlined acquisition approach to ensure that the required acquisitions contain only those requirements that are essential to meet the warfighter mission and that they can be acquired in a cost effective and time constrained manner that meets the defined mission need. This strategy will enable the rapid fielding of low to moderate risk capabilities to meet end-user operational needs through an agile requirements collection and engineering process that supports the acquisition, testing, and fielding of needed requirements in minimum time. The benefits provided by this acquisition approach include:

- Satisfy time-urgent needs of the warfighter or theater commander
- Provide early and continual involvement of the user
- Evaluate the portfolio to determine optimum funding approach to rapidly deploy urgently needed services within the funding profile
- Effective control processes that lower cost and maintains schedule
- Provide multiple, rapidly executed increments or releases of capability
- Early dialogue between the requirements and acquisition communities to expedite technical, programmatic, and financial solutions
- Enable "insight" not "oversight" to identify and resolve problems early and ensure both the acquisition process and deployed service meets performance goals
- Enable agility in selecting modular, open-systems approach

This business strategy will strike a balance between ensuring accountability using acquisition best practices and deploying urgently needed services to the warfighter on a schedule that will support their mission requirements. The goal is to facilitate the DoD enterprise cloud vision where users and Programs of Record easily access enterprise services from maritime, airborne, and land-based locations worldwide through a federation of core data centers. The user community will guide how the portfolio of services must evolve to remain relevant to the Warfighter, Business, and Intelligence Mission Area mission requirements. By partnering with the DoD Components and Mission Areas, the Defense Information Systems Agency will rapidly deliver functionality and capability at the lowest possible cost and risk in the shortest possible timeframe.

E. Performance Metrics

E. Performance Metrics

Net-Centric Enterprise Services (NCES) uses continuous monitoring to ensure the delivered and managed portfolio of services meets the mission needs of the stakeholders, are delivered, improved, and sustained in a cost effective manner and continues to add functionality that keeps the capability relevant to the missions supported, and is responsive to evolving mission requirements.

Activity:

- Requirements Satisfaction

Continue to expand, modernize, and enhance the portfolio of enterprise services to ensure the functionality is kept current with warfighter needs, evolving technologies, and DoD policy. Delivery of modernized services and integration of new technologies are fully tested and delivered in a timely fashion to meet mission needs.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

Expected Outcome:

FY2015 (Actual): Completed the transition to the replacement Defense Enterprise Collaboration service and support any development and testing required to transition the users from the existing service to the replacement service.
FY2016 (Estimated): Identify mission needs and candidate local services that cross Service and Combatant Command boundaries for their potential to transition into the enterprise infrastructure and the expanding portfolio.
FY17: N/A

Activity:
• Portfolio Evolution

Support the transition and integration of new and existing enterprise services and evolving technologies. Provide continuing analysis of industry standards and specifications for enhancements and added functionality to existing operational enterprise services to keep them current with evolving technologies and establish the strategic vision of enterprise services to ensure they evolve to support the user's missions.

Expected Outcome:

FY2015 (Actual): Identified, researched, and developed additional functionality for the replacement Defense Enterprise Collaboration service to ensure it stays relevant to the end-users mission needs.
FY2016 (Estimated): Evaluate Service-centric applications and technologies transitioning into the Joint Information Environment to identify candidates to “jump start” as potential enterprise services that can support other Services with similar mission needs.
FY17: N/A

Activity:
• Enterprise Service Availability

Operational testing of modernized services or updated technologies into existing services validate that the validated customer requirement of ≥ .997 availability/reliability is sustained. Operational availability/reliability requirement is met to ensure the modernized service or technologies updates supports the customer perspective of value to mission effectiveness and relevancy to evolving mission needs.

Expected Outcome:

FY2015 (Actual): Operational requirement was met by all enterprise services that, in turn, supported the customer perspective that the services support mission effectiveness and is relevant to evolving mission needs.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

FY2016 (Estimated): Operational requirement met by all enterprise services that, in turn, will support the customer perspective that the services support mission effectiveness and is relevant to evolving mission needs.
FY17: N/A

The management areas are designed to ensure that problems can be identified rapidly for resolution, while providing maximum support to the warfighters' mission. The metrics associated with these management areas provide quantitative data to show that the portfolio of enterprise services are secure, interoperable, and responsive to current and future warfighter missions in a cost-effective manner. The management areas and metrics will be used to continuously evaluate the value of services to the Warfighter. They will be used to determine the right time to scale and update services to keep them relevant to the warfighter's mission. Also, when necessary, they provide the necessary artifacts to make decisions to continue, shutdown, or place in caretaker status capabilities that are not performing as expected or where the user demand has slipped or never grew to the level of keeping the service cost effective.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	MIPR	MIT (CTO) : Hanscom Air Force Base, MA	0.821	-		-		-		-		-	Continuing	Continuing	0.871
Product Development 2	C/Various	TBD : TBD	0.958	0.285	Jan 2015	0.077	Jan 2016	-		-		-	Continuing	Continuing	2.586
Product Development 3	C/Various	FGM : Reston, VA	0.173	-		-		-		-		-	Continuing	Continuing	0.175
Product Development 4	MIPR	NSA : Fort Meade, MD	1.050	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development 5	MIPR	SPAWAR : North Charleston, SC	0.285	-		-		-		-		-	Continuing	Continuing	0.305
Product Development 6	MIPR	SKIWEB : San Diego, CA	3.115	0.526	Dec 2014	-		-		-		-	Continuing	Continuing	Continuing
Product Development 7	C/Various	FGM : Reston, VA	8.699	-		-		-		-		-	Continuing	Continuing	8.699
Product Development 8	MIPR	JEDS : Bethesda, MD	2.566	-		-		-		-		-	Continuing	Continuing	2.566
Product Development 9	C/Various	BAH : Mclean, VA	3.084	-		-		-		-		-	Continuing	Continuing	3.084
Product Development 10	C/FPIF	CSC : Falls Church, Va	15.051	-		-		-		-		-	Continuing	Continuing	30.235
Product Development 11	C/FP	Various : Various	10.184	1.574	Nov 2014	0.070	Nov 2015	-		-		-	Continuing	Continuing	17.132
Product Development 12	C/Various	SOLERS : Arlington, VA	4.143	-		-		-		-		-	Continuing	Continuing	4.143
Product Development 13	C/CPIF	CSD : Pensacola, FL	8.417	-		-		-		-		-	Continuing	Continuing	8.417
Product Development 14	C/FPIF	ICES : Fort Meade, MD	4.071	-		-		-		-		-	Continuing	Continuing	4.071
Product Development 15	C/FP	Various : Various	0.341	-		-		-		-		-	Continuing	Continuing	0.341
Product Development 16	C/FPIF	IBM : Armonk, NY	4.339	-		-		-		-		-	Continuing	Continuing	4.339
Product Development 17	C/FPIF	CARAHSOFT : Reston, Va	6.183	0.649	Jul 2015	-		-		-		-	Continuing	Continuing	7.000
Product Development 18	C/FPIF	Various : Various	1.501	-		-		-		-		-	Continuing	Continuing	1.501
Product Development 19	MIPR	ARMY : Arlington, VA	9.756	-		-		-		-		-	Continuing	Continuing	9.756

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 20	C/FP	NORTHRUP GRUMMAN : Falls Church, VA	3.167	-		0.126	Apr 2016	-		-		-	Continuing	Continuing	4.167
		Subtotal	87.904	3.034		0.273		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 1	MIPR	JITC : Fort Huachuca, AZ	29.779	-		-		-		-		-	Continuing	Continuing	Continuing
Test & Evaluation 2	MIPR	SPAWAR : North Charleston, SC	18.070	-		-		-		-		-	Continuing	Continuing	18.070
Test & Evaluation 3	MIPR	JFCOM : Norfolk, VA	0.210	-		-		-		-		-	Continuing	Continuing	0.210
Test & Evaluation 4	C/Various	SAIC : Arlington, VA	12.203	0.740	Nov 2014	0.171	Nov 2015	-		-		-	Continuing	Continuing	Continuing
Test & Evaluation 5	MIPR	TE : Fort Meade, MD	0.512	-		-		-		-		-	Continuing	Continuing	0.512
		Subtotal	60.774	0.740		0.171		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services 1	C/T&M	DSA : Aberdeen, MD	12.351	-		-		-		-		-	Continuing	Continuing	12.351
Management Services 2	FFRDC	MITRE : Ft Monmouth, NJ	15.072	-		-		-		-		-	Continuing	Continuing	15.072
Management Services 3	C/FP	CSD : Pensacola, FL	23.056	-		-		-		-		-	Continuing	Continuing	23.056
Management Services 4	C/CPFF	SRA : Fairfax, Va	1.478	-		-		-		-		-	Continuing	Continuing	1.478
Management Services 5	C/Various	BAH : McLean, Va	10.224	-		-		-		-		-	Continuing	Continuing	10.224
Management Services 6	C/Various	SOLERS : Arlington, VA	4.853	-		-		-		-		-	Continuing	Continuing	4.853

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services 7	C/CPFF	Pragmatics : Mclean, VA	1.735	-		-		-		-		-	Continuing	Continuing	1.735
Management Services 8	C/CPFF	MMI : Armonk, NY	2.689	-		-		-		-		-	Continuing	Continuing	2.689
Management Services 9	C/FP	Various : Various	24.756	-		-		-		-		-	Continuing	Continuing	24.756
		Subtotal	96.214	-		-		-		-		-	-	-	96.214

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	244.892	3.774		0.444		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

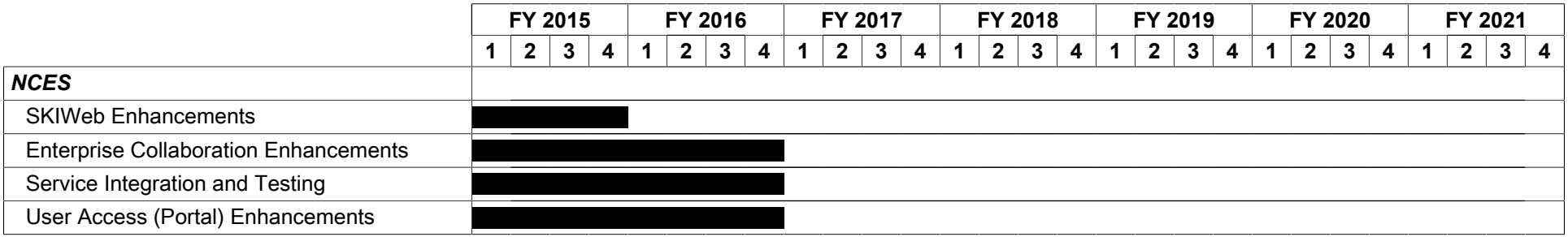

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303170K / *Net-Centric Enterprise Services (NCES)*	**Project (Number/Name)** T57 / *Net-Centric Enterprise Services (NCES)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NCES				
SKIWeb Enhancements	1	2015	4	2015
Enterprise Collaboration Enhancements	1	2015	4	2016
Service Integration and Testing	1	2015	4	2016
User Access (Portal) Enhancements	1	2015	4	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	2.789	-	2.789	2.976	2.976	2.976	3.036	Continuing	Continuing
JE1: *Joint Regional Security Stacks*	-	0.000	0.000	2.789	-	2.789	2.976	2.976	2.976	3.036	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Information Environment (JIE) construct is a consolidated secure and defensible environment across 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	2.789	-	2.789
Total Adjustments	0.000	0.000	2.789	-	2.789
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	2.789	-	2.789

Change Summary Explanation

The increase of +$2.789 in FY 2017 will provide testing support for requirements to Joint Regional Security Stacks (JRSS) Version 1.5 security capabilities by supporting voice over IP, streaming video, and real-time collaboration capabilities.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303228K / *Joint Information Environment*	Project (Number/Name) JE1 / *Joint Regional Security Stacks*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
JE1: *Joint Regional Security Stacks*	-	0.000	0.000	2.789	-	2.789	2.976	2.976	2.976	3.036	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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. 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 Department of Defense (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 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)	FY 2015	FY 2016	FY 2017
Title: Joint Regional Security Stacks	0.000	0.000	2.789
Description: 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.			
FY 2015 Accomplishments: N/A			
FY 2016 Plans: N/A			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Will perform integration and testing of the pre-production capabilities for planned enhancements to JRSS 1.5. These efforts will lead into the initial testing of the production units. Will also provide systems engineering and testing support to integrate capabilities into the existing JRSS. The increase of +$2.789 from FY 2016 to FY 2017 will provide test and evaluation activities for enhancement to JRSS 1.5 capabilities to better synch with planned 1.5 tech refresh.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	2.789

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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. 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 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 CYBERCOM. Cyber Operations can take proactive actions to ensure the uninterrupted availability and protection of system and network information.

FY 2015 (Actual): N/A

FY 2016 (Estimated): N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

FY 2017 (Estimated): 100% successful testing of new pre-production capabilities for Full Packet Capture analytics (e.g. ArcSight and Splunk log); JMS 1.5 data orchestrator aggregation; and JRSS 1.5 active stack capabilities through the Joint Interoperability Test Command.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	TBD	JITC : Various	-	-		-		0.616	Oct 2016	-		0.616	-	-	-
Test and Evaluation Support	TBD	JITC : Various	-	-		-		0.384	Oct 2016	-		0.384	-	-	-
Integration Test and Modification	TBD	TBD : TBD	-	-		-		0.500	Dec 2016	-		0.500	-	-	-
Tech Refresh/Functionality Testing	TBD	Multiple : Various	-	-		-		1.289	Oct 2016	-		1.289	-	-	-
		Subtotal	-	-		-		2.789		-		2.789	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.000		2.789		-		2.789	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

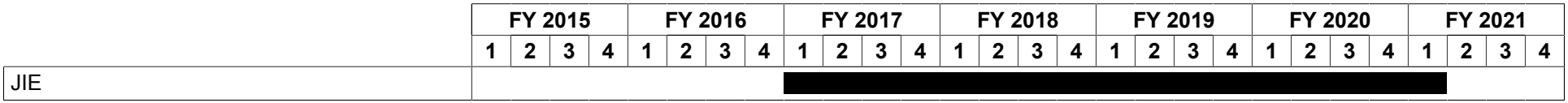

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JIE	1	2017	1	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303430K / *Federal Investigative Services Information Technology*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	75.000	-	75.000	50.000	10.000	10.000	10.000	Continuing	Continuing
KA1: *Federal Investigative Services Information Technology*	-	0.000	0.000	75.000	-	75.000	50.000	10.000	10.000	10.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Develop an enterprise Information Technology (IT) architecture and data strategy for modernizing Investigative capabilities supporting background investigations (BI) (replacing capabilities such as Office of Personnel Management (OPM's) eAdjudication and eApplication). Provides a new, secure infrastructure and investigative support system for DoD and Federal Agencies utilizing web/cloud based capabilities and robust cybersecurity. Leverages DoD's cybersecurity capabilities and national security focus to protect government and contractors' personal and investigative information. Supports the distributed adjudication processes with built-in security; active governance structure, and a new national security culture based on process improvement/change management.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	75.000	-	75.000
Total Adjustments	0.000	0.000	75.000	-	75.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	75.000	-	75.000

Change Summary Explanation

An increase of +$75.000 was received reflecting transfer of responsibility for development of a new IT Background Investigation Information Technology (IT) System(s) from the Office of Personnel Management (OPM) to the DoD.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Background Investigation Information Technology Systems	-	-	75.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303430K *I Federal Investigative Services Information Technology*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Description: Implements the decision by the Interagency Deputies Committee and the Office of Management and Budget (OMB) to transfer responsibility for the development and sustainment of new Federal Government background investigation information technology (IT) system(s) from the OPM to the DoD beginning in FY 2017. ***FY 2017 Plans:*** DoD will design, build and field a new Federal Government background investigation information technology system. The new system will defend against cyber attacks and improve defensibility. DoD will work and consult with the OMB, DNI and the OPM. This new system will provide a service to the whole federal government, not just DoD. An increase of +$75.000 was received reflecting transfer of responsibility for development of a new IT Background Investigation Information Technology (IT) System(s) from the Office of Personnel Management (OPM) to the DoD.			
Accomplishments/Planned Programs Subtotals	-	-	75.000

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 0303430K, O&M: *Background Investigation Information Technology Systems*	-	-	20.000	-	20.000	50.000	150.000	120.000	120.000	Continuing	Continuing

Remarks

E. Acquisition Strategy

Program office is in the process of developing an effective acquisition strategy.

F. Performance Metrics

Program office is in the process of developing performance metrics

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303430K / *Federal Investigative Services Information Technology*	**Project (Number/Name)** KA1 / *Federal Investigative Services Information Technology*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TBD	TBD	TBD : TBD	-	-		-		75.000	Oct 2016	-		75.000	Continuing	Continuing	-
		Subtotal	-	-		-		75.000		-		75.000	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.000		75.000		-		75.000	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303430K / *Federal Investigative Services Information Technology*	**Project (Number/Name)** KA1 / *Federal Investigative Services Information Technology*

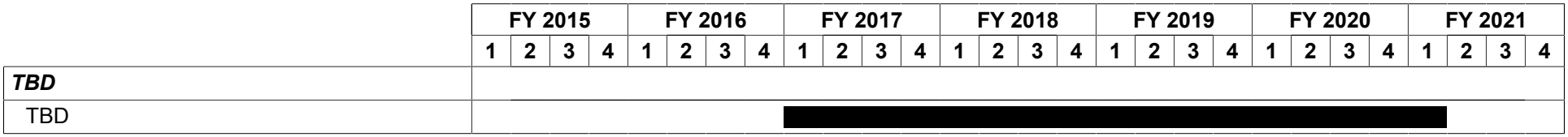

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303430K / *Federal Investigative Services Information Technology*	**Project (Number/Name)** KA1 / *Federal Investigative Services Information Technology*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TBD				
TBD	1	2017	1	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	40.530	3.158	1.736	0.657	-	0.657	0.708	2.430	2.452	2.501	Continuing	Continuing
NS01: *Teleport Generation 1/2*	40.530	1.145	0.434	0.657	-	0.657	0.708	2.430	2.452	2.501	Continuing	Continuing
NS02: *Teleport Generation 3*	0.000	2.013	1.302	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): N81

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.

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. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	2.697	1.736	0.732	-	0.732
Current President's Budget	3.158	1.736	0.657	-	0.657
Total Adjustments	0.461	0.000	-0.075	-	-0.075
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	0.461	-	-0.075	-	-0.075

Change Summary Explanation

The increase of +$0.461 in FY 2015 reflects an increase required for Generation 3/MLGC/Generation 3, Phase 3 (G3P3) developmental testing.

The decrease of -$0.075 in FY 2016 is due to reduced funding required for interoperability certification testing of Teleport Generation 1/2 requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303610K / *Teleport Program*	Project (Number/Name) NS01 / *Teleport Generation 1/2*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
NS01: *Teleport Generation 1/2*	40.530	1.145	0.434	0.657	-	0.657	0.708	2.430	2.452	2.501	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 2015	FY 2016	FY 2017
Title: Teleport Program	1.145	0.434	0.657
FY 2015 Accomplishments: Continued interoperability certification testing of the DoD Teleport capabilities.			
FY 2016 Plans: Will conduct interoperability testing and evaluations on the DoD Teleport system as Commercial-off-the-shelf components and software are replaced to ensure the system is capable to meet our intended operational environment. The decrease of -$0.711 from FY 2015 to FY 2016 is due to a planned realignment of funding between RDT&E and Procurement to support Generation 3 hardware acquisition activities.			
FY 2017 Plans: Funding will be used to support the Joint Interoperability Certification of the DoD Teleport System. The increase of +$0.223 from FY 2016 to FY 2017 is attributed to an increase in contract labor for interoperability certification testing. The Teleport system supports multiple baseband security enclaves for both defense and civil authorities.			
Accomplishments/Planned Programs Subtotals	1.145	0.434	0.657

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/ PE0303610K: *O&M, DW*	3.085	3.140	3.275	-	3.275	3.498	3.828	3.846	3.913	Continuing	Continuing
• Procurement, DW/ PE0303610K: *Procurement, DW*	14.231	7.740	20.291	-	20.291	20.927	21.387	21.582	22.012	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 thorough 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.

E. Performance Metrics

Teleport Cost and Schedule Performance Metrics:

Teleport manages and tracks its cost and schedule performance parameters using a tailored Earned Value Management System (EVMS) process, integrating the program plan, the program schedule, Work Breakdown Structure (WBS), and financial data. Progress is monitored/documented monthly showing percentages complete for schedule and cost. Formal updates with changes to the schedule are documented against the program baseline.

Teleport Program Metrics:

RDT&E funds will be used to maintain an interoperability certification of the fielded DoD Teleport system in light of required/desired system changes. These changes are certified in standalone test events or as part of DoD Interoperability Communications Exercises (DICE). Percentage will be computed by dividing the number of changes under test by the number deemed DoD Interoperable.

Performance metrics have been established in four measurement areas: 1) customer results, 2) mission and business results, 3) processes and activities, and 4) technology. Specific measurement indicators and units of measure vary by measurement area, and metrics in each of the aforementioned areas are measured annually. Teleport will use the same measurement areas for performance metrics in FY 2015, FY 2016 and FY 2017.

Generation 1/2 Metric:

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

Percentage of system changes resulting in interoperability certification

FY 2015: 100%
FY 2016: 100%
FY 2017: 100%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical & Design Services (GDS)	Various	SSC Atlantic : Various	0.362	0.539	Nov 2014	-		-		-		-	0.150	1.051	1.051
Engineering Technical & Design Services (MLGC)	Various	Various Locations : Various	0.753	0.304	Nov 2014	-		-		-		-	0.410	1.467	Continuing
Engineering Services	C/CPFF	STF Ltd. : Fredericksburg, VA	0.297	-		-		-		-		-	0	0.297	0.297
Engineering Services	IA	SPAWAR Atlantic : Charleston, SC	0.075	-		-		-		-		-	0	0.075	0.075
Engineering Technical & Design Services (MVG)	IA	SSC Atlantic:Various : Various	0.320	-		-		-		-		-	0.00	0.320	0.320
Engineering Technical & Design Services (Digital IF)	IA	CERDEC : TBD	0.904	-		-		-		-		-	0.00	0.904	0.904
		Subtotal	2.711	0.843		-		-		-		-	0.560	4.114	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Support	C/FFP	BAH : McLean, VA	16.311	-		-		-		-		-	0.00	16.311	Continuing
Program Office Support	SS/CPFF	SAIC : Falls Church, VA	0.166	-		-		-		-		-	0	0.166	0.166
Program Office Support	C/CPAF	STF : Fredericksburg, VA	0.157	-		-		-		-		-	0	0.157	0.157
Program Office Support	IA	SPAWAR : Charleston, SC	1.221	-		-		-		-		-	0	1.221	1.221
Contractor Program Office Support	MIPR	SSC Atlantic, STF : Charleston, SC	1.100	-		-		-		-		-	1.100	2.200	2.200
Program Office Support	IA	CERDEC : Various	0.071	-		-		-		-		-	0	0.071	0.710
Engineering Technical & Design Services	IA	PM DCATS : Ft. Belvoir, VA	0.352	-		-		-		-		-	0	0.352	0.352

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Support (Tech Refresh)	IA	SPAWAR : Charleston, SC	0.740	-		-		-		-		-	0.380	1.120	1.500
Engineering Technical Support (Tech Refresh) 2	IA	PM DCATS : Ft. Belvoir, VA	1.432	-		-		-		-		-	0	1.432	1.432
Program Office Support	TBD	PLD : TBD	2.934	-		-		-		-		-	1.578	4.512	4.512
Program Office Support Engineering	IA	JITC : Ft. HUA, AZ	0.371	-		-		-		-		-	0	0.371	0.371
Engineering Technical Support (Spectral Warrior)	IA	NRL : NRL	0.552	-		-		-		-		-	0	0.552	0.552
Engineering Technical Support (NSSEG)	Various	SSC Atlantic : Various	0.729	-		-		-		-		-	0	0.729	0.729
		Subtotal	26.136	-		-		-		-		-	3.058	29.194	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing Support Services (Tech Refesh)	MIPR	JITC : Ft. Huachuca	11.683	0.302	Nov 2014	0.434	Nov 2015	0.657	Oct 2016	-		0.657	3.558	16.634	Continuing
		Subtotal	11.683	0.302		0.434		0.657		-		0.657	3.558	16.634	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	40.530	1.145		0.434		0.657		-		0.657	7.176	49.942	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

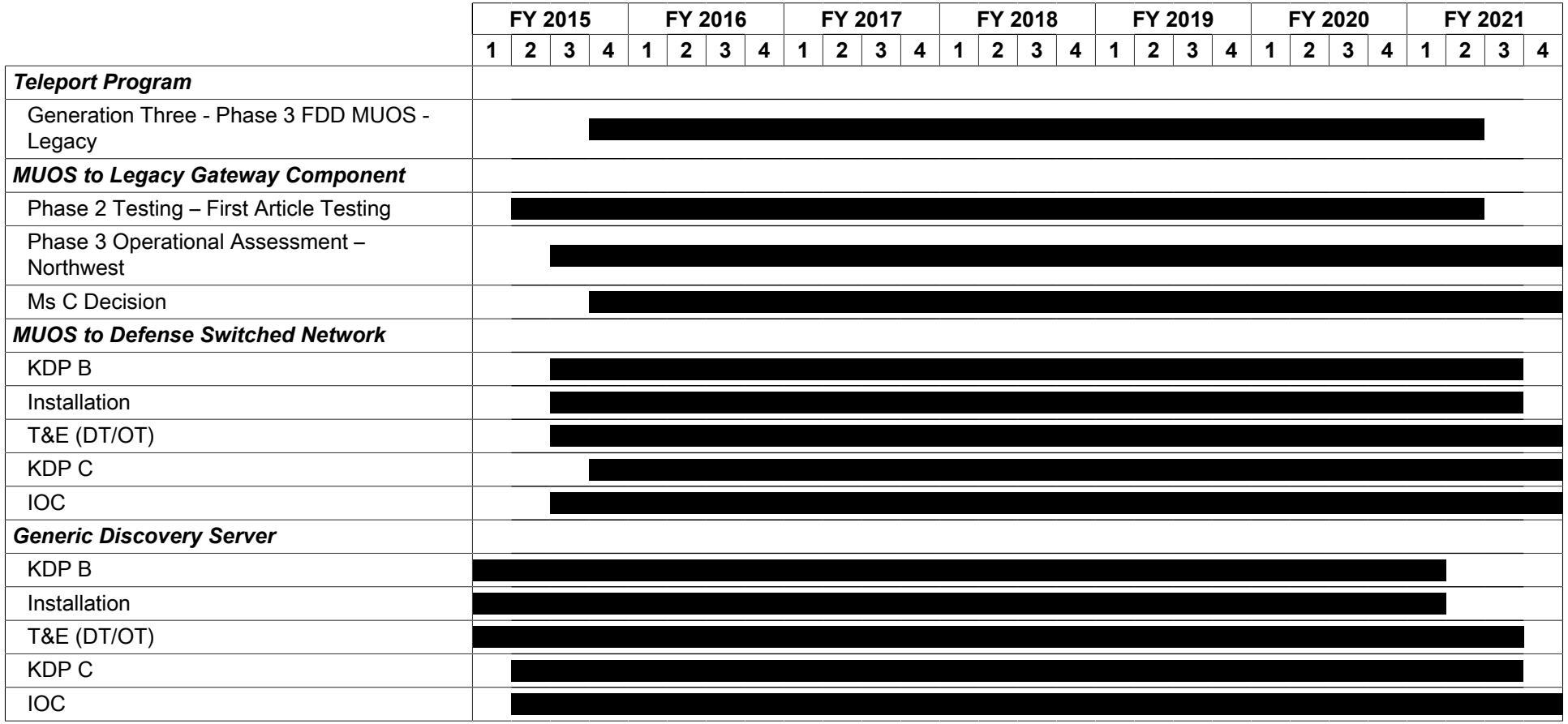

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Teleport Program				
Generation Three - Phase 3 FDD MUOS - Legacy	4	2015	2	2021
MUOS to Legacy Gateway Component				
Phase 2 Testing – First Article Testing	2	2015	2	2021
Phase 3 Operational Assessment – Northwest	3	2015	4	2021
Ms C Decision	4	2015	4	2021
MUOS to Defense Switched Network				
KDP B	3	2015	3	2021
Installation	3	2015	3	2021
T&E (DT/OT)	3	2015	4	2021
KDP C	4	2015	4	2021
IOC	3	2015	4	2021
Generic Discovery Server				
KDP B	1	2015	1	2021
Installation	1	2015	1	2021
T&E (DT/OT)	1	2015	3	2021
KDP C	2	2015	3	2021
IOC	2	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303610K / *Teleport Program*	Project (Number/Name) NS02 / *Teleport Generation 3*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
NS02: *Teleport Generation 3*	0.000	2.013	1.302	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: N81

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 Generation 3 follows:

Generation 3: Funding will be used to execute Pre-Milestone C documentation preparation and acquisition activities for Generation 3 Phase 3.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Teleport Program	2.013	1.302	0.000
Description: Generation 3: Funding will be used to execute Pre-Milestone C documentation preparation and acquisition activities for Generation 3 Phase 3. ***FY 2015 Accomplishments:*** Continued documentation development in support of Generation 3 Phase 3 Milestone C decision scheduled for 2nd Quarter of FY 2016. ***FY 2016 Plans:*** Will conduct operational testing and evaluations on the DoD Teleport Generation 3 Phase 3 implementation. The decrease -$0.711 from FY 2015 to FY 2016 is due to the continuation of DoD Teleport Generation 3 acquisition testing as the Gen 3 Phase 3 capabilities are implemented. ***FY 2017 Plans:*** N/A The decrease of -$1.302 from FY 2016 to FY 2017 is due to the completion of Generation 3 operational test and evaluation requirements (specifically contract labor and associated lab support).			
Accomplishments/Planned Programs Subtotals	2.013	1.302	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS02 / *Teleport Generation 3*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• O&M, DW/ PE0303610K: *O&M, DW*	6.831	6.962	6.107	-	6.107	6.680	6.898	6.991	7.135	Continuing	Continuing
• Procurement, DW/ PE0303610K: *Procurement, DW*	25.775	25.034	7.706	-	7.706	1.887	0.000	0.000	0.000	Continuing	Continuing
• MILCON, DW/ PE0303610K: *MILCON, DW*	9.600	-	-	-	-	-	-	-	-	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 thorough 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.

E. Performance Metrics

Generation 3 Cost and Schedule Performance Metrics:

Teleport manages and tracks its cost and schedule performance parameters using a tailored Earned Value Management System (EVMS) process, integrating the program plan, the program schedule, Work Breakdown Structure (WBS), and financial data. Progress is monitored/documented monthly showing percentages complete for schedule and cost. Formal updates with changes to the schedule are documented against the program baseline.

Generation 3 Program Metrics:

RDT&E funds will be used to perform acquisition testing.

Across appropriations, performance metrics have been established in four measurement areas: 1) customer results, 2) mission and business results, 3) processes and activities, and 4) technology. Specific measurement indicators and units of measure vary by measurement area, and metrics in each of the aforementioned areas are measured annually. Teleport will use the same measurement areas for performance metrics in FY 2015, FY 2016 and FY 2017.

Number of G3P3 Operational Test Events

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS02 / *Teleport Generation 3*

FY 2015: N/A
FY 2016: 1 Planned/1 Required
FY 2017: N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303610K / *Teleport Program*	Project (Number/Name) NS02 / *Teleport Generation 3*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Support	C/FFP	BAH : McLean, VA	0.000	0.492	Oct 2014	0.700	Oct 2015	-		-		-	0.00	1.192	Continuing
Testing Support Services	MIPR	JITC : Fort Huachuca	0.000	0.601	Jan 2015	0.602	Jan 2016	-		-		-	0.00	1.203	1.203
Systems Engineering	MIPR	SSC-A : Charleston, SC	-	0.920	Jan 2015	-		-		-		-	-	-	-
		Subtotal	0.000	2.013		1.302		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.013		1.302		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS02 / *Teleport Generation 3*

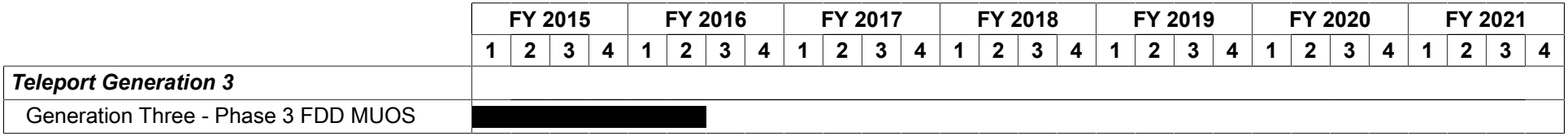

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303610K / *Teleport Program*	**Project (Number/Name)** NS02 / *Teleport Generation 3*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Teleport Generation 3				
Generation Three - Phase 3 FDD MUOS	1	2015	2	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305103K / *Cybersecurity Initiative*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	11.001	3.085	2.976	1.553	-	1.553	1.749	1.933	1.949	1.988	Continuing	Continuing
XXX: *Cybersecurity Initiative*	11.001	3.085	2.976	1.553	-	1.553	1.749	1.933	1.949	1.988	Continuing	Continuing

A. Mission Description and Budget Item Justification

Classified

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.234	2.976	2.921	-	2.921
Current President's Budget	3.085	2.976	1.553	-	1.553
Total Adjustments	-0.149	0.000	-1.368	-	-1.368
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.149	-	-1.368	-	-1.368

Change Summary Explanation

Classified

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305103K / *Cybersecurity Initiative*	Project (Number/Name) XXX / *Cybersecurity Initiative*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
XXX: *Cybersecurity Initiative*	11.001	3.085	2.976	1.553	-	1.553	1.749	1.933	1.949	1.988	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Classified

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Cyber Security Range	3.085	2.976	1.553
FY 2015 Accomplishments: NA			
FY 2016 Plans: NA			
FY 2017 Plans: Classified			
Accomplishments/Planned Programs Subtotals	3.085	2.976	1.553

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Classified

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305103K / *Cybersecurity Initiative*	Project (Number/Name) XXX / *Cybersecurity Initiative*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Classified	TBD	Classified : Classified	11.001	3.085	Oct 2014	2.976	Oct 2015	1.553	Oct 2016	-		1.553	Continuing	Continuing	Continuing
		Subtotal	11.001	3.085		2.976		1.553		-		1.553	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.001	3.085		2.976		1.553		-		1.553	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305103K / *Cybersecurity Initiative*	**Project (Number/Name)** XXX / *Cybersecurity Initiative*

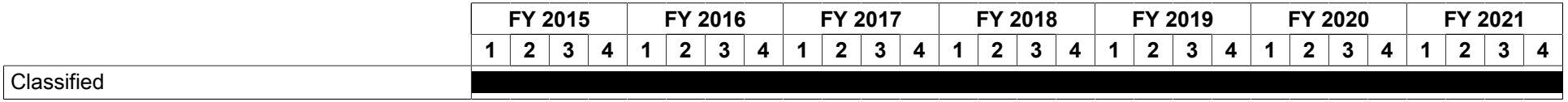

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305103K / *Cybersecurity Initiative*	**Project (Number/Name)** XXX / *Cybersecurity Initiative*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Classified	1	2015	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	43.571	3.328	3.239	3.030	-	3.030	3.323	3.335	3.365	3.433	Continuing	Continuing
NF1: *Distributed Common Ground/Surface Systems*	43.571	3.328	3.239	3.030	-	3.030	3.323	3.335	3.365	3.433	Continuing	Continuing

A. Mission Description and Budget Item Justification

As the sole joint interoperability certification agent, the Joint Interoperability Test Command established and maintains a Distributed Development and Test Enterprise for the Department of Defense (DoD) Distributed Common Ground/Surface System (DCGS) program, as directed by the Office of the Under Secretary of Defense (Intelligence). DCGS is an integral and critical component of the overall DoD Intelligence, Surveillance, and Reconnaissance interoperability and data integration strategy which provides world-wide capabilities to receive, process, exploit, and disseminate data from airborne and national reconnaissance sensors/platforms and commercial sources.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.400	3.239	3.260	-	3.260
Current President's Budget	3.328	3.239	3.030	-	3.030
Total Adjustments	-0.072	0.000	-0.230	-	-0.230
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.072	0.000	-0.230	-	-0.230

Change Summary Explanation

The decrease of -$0.072 in FY 2015 is attributable to reduced cost of testing.

The decrease of -$0.230 in FY 2017 is attributable to reduced cost of testing.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208K / *Distributed Common Ground/Surface Systems*	Project (Number/Name) NF1 / *Distributed Common Ground/Surface Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
NF1: *Distributed Common Ground/Surface Systems*	43.571	3.328	3.239	3.030	-	3.030	3.323	3.335	3.365	3.433	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Interoperability Test Command (JITC) coordinates with the Military Services and Defense Intelligence Agencies to conduct Joint/Distributed Common Ground/ Surface System (DCGS) testing and analysis, including event coordination, configuration, instrumentation and integration functions on the Distributed Development and Test Enterprise (DDTE). Under the DCGS Governance, this effort, referred to as the DCGS Test and Evaluation (T&E) Focus Team (FT), is composed of three parts: the DDTE Focus Group, providing and sustaining a distributed development network; the Strategy Focus Group, looking at current and future net-enabled enterprise T&E methods; and the Execution Focus Group, which leverages the Strategy Focus Group's methodologies in executing DCGS Enterprise assessment events, such as the annual DCGS demonstration, ENTERPRISE CHALLENGE. 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 between the DCGS Programs of Record (PoRs) and the overarching Defense Intelligence Information Enterprise (DI2E).

Operates and maintains the DDTE, providing DCGS PoRs a virtual, operationally-relevant assessment environment maintaining connectivity between Service facilities, National Agency capabilities, and Coalition partners. DDTE allows robust integration of modeling and simulation T&E capabilities across Joint DCGS events without introducing vulnerabilities to operational Command and Control networks and has enabled improvements in systems engineering, instrumentation and T&E throughout all phases of the DCGS life cycle.

DCGS PoRs and Coalition partners use the DDTE network, which supports the net-centric maturity assessment of the DCGS Enterprise under the DCGS Governance, to integrate architecture, standards, and capabilities for implementation of the DCGS Integration Backbone and support the migration to net-centricity, including DCGS Enterprise services for the Military Departments, DCGS-Special Operations Forces and the DCGS Intelligence Community. National Agency capabilities supporting DCGS include Geospatial Intelligence, Signals Intelligence, Measurement and Signature Intelligence and Human Intelligence, which are integrated and tested in the DDTE domain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Distributed Common Ground/Surface Systems (DCGS)	3.328	3.239	3.030
FY 2015 Accomplishments: Continued to support DDTE and provided enhanced functionality with expanding T&E capability, with a focus on increasingly automated evaluations of net-centric data and web services. To further DCGS Enterprise capabilities, established procedures and conducted compliance testing of services against established standards prior to making them available and accessible in a "storefront" that enhances the sharing of net-centric data and services and promotes reuse of capabilities. Established and			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
hosted initial "Testing as a Service" capabilities that enabled DCGS entities to test for standards compliance early and often during the development and acquisition processes. Enterprise T&E support continued to include Enterprise-level assessment events such as Enterprise Challenge and Unified Vision for the DCGS PoRs, National Agencies and Coalition Partners. Continued development and instrumentation for data collection and testing support on the DCGS network domains and enclaves. Collected data during the assessment efforts which was included in the EMM and documented in an annual DCGS Enterprise Assessment Report. ***FY 2016 Plans:*** Continuing to support DDTE and to provide enhanced functionality with expanding T&E capability, with a focus on increasingly automated evaluations of net-centric data and web services. Incorporating new technologies such as cloud computing, mobile technology, and "big data" in assessment methodologies and practices. To further DCGS Enterprise and associated Defense Intelligence Information Enterprise (DI2E) capabilities, conducting compliance testing of data, metadata, and services against established standards to enhance the sharing and promote reuse of net centric capabilities. Enhancing "Testing as a Service" (TaaS) capabilities that enable DCGS entities and other communities of interest (COIs), such as industry partners, to test for standards compliance early and often during the development and acquisition processes. Enterprise T&E support continues to include enterprise-level assessment events such as ENTERPRISE CHALLENGE for the DCGS PoRs, National Agencies and Coalition Partners. Continuing development and instrumentation for data collection and testing support on the DCGS network domains and enclaves; with the number of active DDTE nodes increasing from 19 to 21 as the DCGS PoRs participate in assessment venues with other DI2E entities. Developing and implementing passive instrumentation on operational networks that can gather data on capabilities not instantiated on the DDTE test domain to provide a more robust evaluation of the net-centric maturity of the DCGS Enterprise. Data collected by these assessment efforts are reflected in the Enterprise Maturity Model (EMM) and documented in an annual DCGS Enterprise Assessment Report. The decrease of -$0.089 from FY 2015 to FY 2016 is due to testing remotely rather than on-site following automation improvements and delay of end of life hardware replacement. ***FY 2017 Plans:*** Continuing to support DDTE, provide enhanced functionality, expand T&E capability, and perform automated evaluations of net-centric data and web services with improved assessment methodologies and practices due to incorporating new technologies such as cloud computing, mobile technology, and "big data". Continuing to conduct compliance testing of data, metadata, and services against established standards to enhance the sharing and promote reuse of net centric capabilities and to enhance "Testing as a Service" (TaaS) capabilities that enable DCGS entities and other communities of interest (COIs) to test for standards compliance during the development and acquisition processes. enterprise T&E support, such as enterprise-level assessment events i.e., ENTERPRISE CHALLENGE). Development of and improvements to instrumentation for data collection and testing support on the DCGS network domains and enclaves for the DCGS PoRs, National Agencies and Coalition Partners continues;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
with the number of active DDTE nodes expected to increase as the DCGS Programs of Record (PoRs) participate in assessment venues with other DI2E entities. Developing and implementing passive instrumentation on operational networks that can gather data on capabilities not instantiated on the DDTE test domain to provide a more robust evaluation of the net-centric maturity of the DCGS Enterprise. Data collected by these assessment efforts are reflected in the Enterprise Maturity Model (EMM) and documented in an annual DCGS Enterprise Assessment Report. The decrease of -$0.209 from FY 2016 to FY 2017 is due to reduced testing costs following automation improvements, reduction in the number of testing events and delay in end of life hardware replacement.			
Accomplishments/Planned Programs Subtotals	3.328	3.239	3.030

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

A T&E Mission Support Services (MSS) cost plus fixed fee 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.

E. Performance Metrics

The DCGS T&E FT performs a minimum of six DCGS Enterprise assessments per year, and the results are consolidated into the T&E FT Enterprise Assessment Report annually. The T&E FT also provides input to the DCGS Enterprise Focus Team's State of the Enterprise (SoE) Report, which includes the Enterprise Maturity Model (EMM) and shows measurable DCGS Enterprise net-centric maturity progress over time.

The T&E FT also leverages Joint Interoperability Certification testing to support the evaluation of DCGS Enterprise maturity. In FY 2015, T&E FT performed ten (10) DCGS Enterprise assessments, of the six DCGS PoR systems, three hold current Joint Staff (JS), Command, Control, Communications, & Computers/Cyber (J6) Interoperability (IOP) Certifications and continue to conduct IOP testing on emerging releases. One DCGS PoR has completed interoperability testing, and the joint IOP certification is pending. The remaining two PoRs are not required to be JS J6 certified, but the T&E FT leverages data collected during periodic IOP assessments of these programs during enterprise-level demonstrations and test events. Due to increased automation for data collection, parsing and analysis, in addition to advances in PoR and Enterprise maturity, the T&E FT increases the cumulative number of net-centric capability evaluations each year.

In FY 2016, T&E FT will perform a minimum of ten (10) DCGS Enterprise assessments. This trend is expected to continue in FY2017. This effort provides the basis for the DCGS Enterprise Assessment, allowing the Office of the Under Secretary of Defense (Intelligence) to measure the level of maturity of the DCGS Enterprise supported by the DCGS Governance across DoD.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

In FY 2017, T&E FT will perform a minimum of ten (10) DCGS Enterprise assessments.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Contracts	Various	N/A : N/A	19.063	1.000	Oct 2014	0.900	Oct 2015	1.000	Oct 2016	-		1.000	Continuing	Continuing	Continuing
		Subtotal	19.063	1.000		0.900		1.000		-		1.000	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Services 1	C/T&M	Interop : Ft. Hua, AZ	3.763	-		-		-		-		-	0.000	3.763	3.376
Engineering/Technical Services 2	C/T&M	NGMS : Ft. Hua, AZ	12.927	-		-		-		-		-	0.000	12.927	12.927
Engineering/Technical Services 3	C/T&M	NGIT : Ft. Hua, AZ	3.612	-		-		-		-		-	0.000	3.612	3.612
Engineering/Technical Services 4	C/Various	Various : Various	0.743	0.600	Oct 2014	0.209	Oct 2015	0.291	May 2017	-		0.291	Continuing	Continuing	Continuing
Engineering/Technical Services 5	C/CPFF	TASC, Inc : Andover, MA	3.463	1.728	Oct 2014	2.130	Oct 2015	1.739	May 2017	-		1.739	-	-	-
		Subtotal	24.508	2.328		2.339		2.030		-		2.030	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	43.571	3.328		3.239		3.030		-		3.030	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

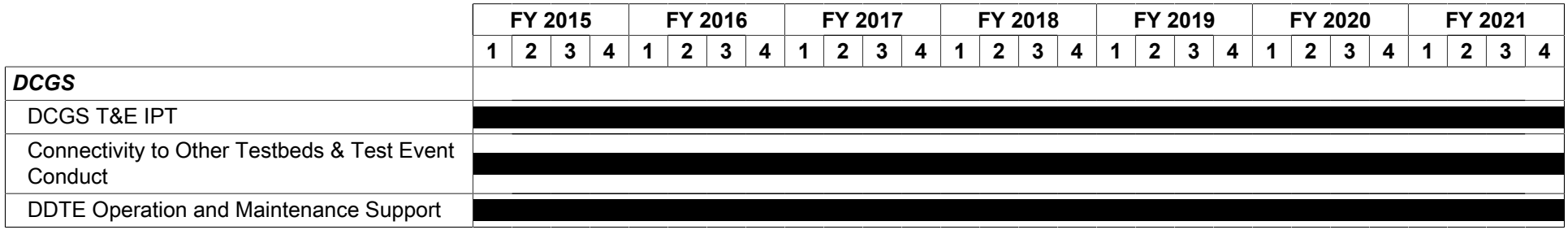

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208K / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 / *Distributed Common Ground/Surface Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DCGS				
DCGS T&E IPT	1	2015	4	2021
Connectivity to Other Testbeds & Test Event Conduct	1	2015	4	2021
DDTE Operation and Maintenance Support	1	2015	4	2021

Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

Defense Logistics Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
34	0603264S	Agile Transportation for the 21st Century (AT21) - Theater Capability	03	1,460	1,706		1,706				U
48	0603680S	Manufacturing Technology Program	03					31,259		31,259	U
50	0603712S	Generic Logistics R&D Technology Demonstrations	03	22,224	15,537		15,537	11,011		11,011	U
51	0603713S	Deployment and Distribution Enterprise Technology	03	29,533	29,888		29,888				U
53	0603720S	Microelectronics Technology Development and Support	03	81,199	89,038		89,038	97,826		97,826	U
		Advanced Technology Development		134,416	136,169		136,169	140,096		140,096	
126	0605070S	DOD Enterprise Systems Development and Demonstration	05	13,893	11,912		11,912	12,631		12,631	U
128	0605080S	Defense Agency Intiatives (DAI) - Financial System	05	35,497	31,660		31,660	26,657		26,657	U
129	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05	9,801	10,135		10,135	4,949		4,949	U
		System Development And Demonstration		59,191	53,707		53,707	44,237		44,237	
156	0605502S	Small Business Innovative Research	06	5,711							U
		Management Support		5,711							
237	0708011S	Industrial Preparedness	07	20,405	22,605		22,605				U
238	0708012S	Pacific Disaster Centers	07	1,522	1,770		1,770	1,754		1,754	U
239	0708047S	Defense Property Accountability System	07					2,154		2,154	U
		Operational System Development		21,927	24,375		24,375	3,908		3,908	
Total Research, Development, Test & Eval, DW				221,245	214,251		214,251	188,241		188,241	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 13:46:23

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

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48	03	0603680S	Manufacturing Technology Program (ManTech)	Volume 5 - 315
50	03	0603712S	Logistics Research and Development Technology (Log R&D)	Volume 5 - 337
51	03	0603713S	Deployment and Distribution Enterprise Technology	Volume 5 - 361
53	03	0603720S	Microelectronics Technology Development and Support (DMEA)	Volume 5 - 379

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
126	05	0605070S	DoD Enterprise Systems Development and Demonstration	Volume 5 - 387
128	05	0605080S	Defense Agency Initiatives (DAI) - Financial System	Volume 5 - 425
129	05	0605090S	Defense Retired and Annuitant Pay System (DRAS)	Volume 5 - 441

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
156	06	0605502S	Small Business Innovative Research (SBIR)	Volume 5 - 447

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
237	07	0708011S	Industrial Preparedness	Volume 5 - 451
238	07	0708012S	Pacific Disaster Centers	Volume 5 - 507
239	07	0708047S	Defense Property Accountability System (DPAS)	Volume 5 - 517

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Defense Agency Initiatives (DAI) - Financial System	0605080S	128	05	Volume 5 - 425
Defense Property Accountability System (DPAS)	0708047S	239	07	Volume 5 - 517
Defense Retired and Annuitant Pay System (DRAS)	0605090S	129	05	Volume 5 - 441
Deployment and Distribution Enterprise Technology	0603713S	51	03	Volume 5 - 361
DoD Enterprise Systems Development and Demonstration	0605070S	126	05	Volume 5 - 387
Industrial Preparedness	0708011S	237	07	Volume 5 - 451
Logistics Research and Development Technology (Log R&D)	0603712S	50	03	Volume 5 - 337
Manufacturing Technology Program (ManTech)	0603680S	48	03	Volume 5 - 315
Microelectronics Technology Development and Support (DMEA)	0603720S	53	03	Volume 5 - 379
Pacific Disaster Centers	0708012S	238	07	Volume 5 - 507
Small Business Innovative Research (SBIR)	0605502S	156	06	Volume 5 - 447

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603264S *I Agile Transportation for the 21st Century (AT21) Theater Capability*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	8.975	1.460	1.706	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.141
1: *Agile Transportation for the 21st Century (AT21) Theater Capability*	8.975	1.460	1.706	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.141

A. Mission Description and Budget Item Justification

Through the Theater Enterprise Deployment and Distribution (TED2) analysis, the Geographic Combatant Commanders (GCC) identified several gaps between United States Transportation Command's strategic lift processes and GCCs' distribution processes. Highlighted is a lack of capability to (1) manage transportation planning and execution processes for cargo/passenger movement within their respective theaters of operation or (2) match global movement requirements against available lift assets to produce an optimized transportation schedule that meets delivery requirements. AT21 Theater Capability, through the implementation of process improvements, integration of commercial transportation management/optimization tools, and the development of deployment/distribution supporting technologies, will provide the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	2.544	2.679	0.000	-	0.000
Current President's Budget	1.460	1.706	0.000	-	0.000
Total Adjustments	-1.084	-0.973	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.973			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.000	-			
• SBIR/STTR Transfer	-0.084	-			

Change Summary Explanation

FY2014 Support OSD urgent request for funding: -$1.242
FY2015 Other Program Reduction (Budget Control Act 2011): -$5.031 million
FY2016 Other Program Reduction (Budget Control Act 2011): -$5.096 million

In FY 2016, PE was reduced by $0.973M as a result of prior year carryover.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603264S *I Agile Transportation for the 21st Century (AT21) Theater Capability*

In FY 2017, PE 0603264S (BA3) Agile Transportation for the 21st Century (AT21) Theater Capability was transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603264S / *Agile Transportation for the 21st Century (AT21) Theater Capability*	Project (Number/Name) 1 / *Agile Transportation for the 21st Century (AT21) Theater Capability*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Agile Transportation for the 21st Century (AT21) Theater Capability*	8.975	1.460	1.706	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.141

A. Mission Description and Budget Item Justification

Through the Theater Enterprise Deployment and Distribution (TED2) analysis, the Geographic Combatant Commanders (GCC) identified several gaps between United States Transportation Command's strategic lift processes and GCCs' distribution processes. Highlighted is a lack of capability to (1.) manage transportation planning and execution processes for cargo/passenger movement within their respective theaters of operation or (2.) match global movement requirements against available lift assets to produce an optimized transportation schedule that meets delivery requirements. AT21 Theater Capability, through the implementation of process improvements, integration of commercial transportation management/optimization tools, and the development of deployment/distribution supporting technologies, will provide the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Agile Transportation for the 21st Century (AT21) Theater Capability	1.460	1.706	-

Description: AT21 Theater will, in conjunction with the GCCs, continue business process analysis, business process automation development, and business process technology integration to improve the integration/transition of business processes between the strategic and theater segments, as well as improve theater deployment and distribution business processes. Theater business process analysis will identify opportunities for insertion of industry best practices and technology to improve the efficiency/effectiveness of managing theater deployment and distribution operations. Based on operational requirements emerging from the theater business processes, AT21 will develop, prototype, adapt and transition technologies to enable theater deployment and distribution capabilities.

FY 2015 Accomplishments:

Continue to develop an AT21 theater optimization tool that automates the Joint Operational Support Airlift Center (JOSAC) scheduling process and optimizes airlift mission schedules for operational support airlift requirements. Complete end-to-end supply chain integration analysis of deployment and distribution requirements. Continue data architecture analysis/services business processes re-engineering work to ensure the seamless transition of deployment and distribution information between strategic & theater legs.

FY 2016 Plans:

Continue data architecture analysis/services work to support reengineered business processes to ensure the seamless transition of deployment and distribution information between strategic & theater legs. Complete development of an AT21 theater

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603264S / *Agile Transportation for the 21st Century (AT21) Theater Capability*	**Project (Number/Name)** 1 / *Agile Transportation for the 21st Century (AT21) Theater Capability*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
optimization tool that automates the Joint Operational Support Airlift Center scheduling process and optimizes airlift mission schedules for operational support airlift requirements			
Accomplishments/Planned Programs Subtotals	1.460	1.706	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Development of core integrated strategic and theater process maps delineating gaps in information flow and prototype systems to facilitate synchronized transportation management and execution capabilities to improve performance in theater transportation operations. >80% transition rate of proven technologies/capabilities.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603680S *I Manufacturing Technology Program (ManTech)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	31.259	-	31.259	36.483	35.605	35.567	36.035	Continuing	Continuing
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	-	0.000	0.000	10.924	-	10.924	12.965	12.433	12.203	12.176	Continuing	Continuing
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	-	0.000	0.000	16.923	-	16.923	19.056	18.738	18.902	19.360	Continuing	Continuing
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*	-	0.000	0.000	3.412	-	3.412	4.462	4.434	4.462	4.499	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Manufacturing Technology (ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. The program matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. It addresses production issues early by providing timely solutions, thereby reducing risk and positively impacting system life cycle affordability by providing solutions to manufacturing problems before they occur.

Beginning in FY 16 DLA ManTech was realigned into three Strategic Focus Areas (SFA): 1) Improving Industrial base Manufacturing Processes; 2) Maintaining Viable Sources of Supply; and 3) Improving Technical and Logistics Information.

• The Improving Industrial Base Manufacturing Processes SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA subsumed the former supply chain oriented efforts in Subsistence Network (formerly Combat Rations Network for Technology Implementation), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST), and Battery Network (BATTNET). New manufacturing processes within the scope of this SFA include emerging technologies such as Additive Manufacturing.

• Maintaining Viable Supply Sources includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements. This SFA subsumed the Material Acquisition Electronics ManTech efforts. In the future it will include other DLA efforts to maintain a viable industrial capability in areas such as Strategic Materials.

• The Improving Technical and Logistics Information SFA include efforts to improve and facilitate the exchange of engineering and logistics information among DLA industry partners and customers. It includes the MANTECH program Military Uniform System Technology (MUST) (formerly Customer Driven Uniform Manufacturing) and the Defense Logistics Information Research Program from P.E. 0603712S. 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603680S *I Manufacturing Technology Program (ManTech)*

Over the FY 17- FY 21 Planning Period, $9.606M per year was realigned within the ManTech PE, from the DLA Log R&D PE (0603712S) and DLA Procurement Defense-Wide Fund. These funds will address critical shortfalls in the Improving Industrial Base Manufacturing Processes and Maintaining Viable Supply Sources. The largest requirement was in the Maintaining Viable Supply Sources to develop a long-term, reliable source of linear microcircuits. These devices are critical to maintaining the readiness of front line weapon system electronics. High priority requirements in the Improving Industrial Base Manufacturing Processes SFA included additional funding for battery technology, castings and forging manufacturing technology.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	31.259	-	31.259
Total Adjustments	0.000	0.000	31.259	-	31.259
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation for Non-Pay/Non-Fuel Purchases	-	-	-0.263	-	-0.263
• Underexecution	-	-	-2.691	-	-2.691
• Civ Pay Adjustment	-	-	0.002	-	0.002
• Program Realignment	-	-	34.211	-	34.211

Change Summary Explanation

MANTECH is being realigned from BA 07 to BA 03 in FY 2017.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	-	0.000	0.000	10.924	-	10.924	12.965	12.433	12.203	12.176	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Material Availability (MA) Strategic Focus Area (SFA) are R&D efforts undertaken with DLA's industrial base to reduce material costs, reduce the length and variability of Production Lead-Times, assure the DLA managed products meet 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 strategic focus area includes within its scope the former Combat Rations Program, the Battery Program, the Castings and the Forgings programs.

This SFA is comprised of five roadmaps for Batteries, Subsistence Network, Castings, Forgings, and Additive Manufacturing.

The Battery network 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. The network conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at $183M net value - compared to FY13 $176M and FY12 $216M. The Battery network 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 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 'Subsistence Supply Chain' which consists of the supply chain for military subsistence including combat rations, field feeding equipment, garrison feeding and 'market fresh.' The Subsistence Network (SUBNET) Program is a Manufacturing Technology Program and is the successor to the CORANET R&D program. SUBNET will form a community of practice 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.

The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are castings. 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 foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metalcasting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% 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 the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Additive Manufacturing (AM) objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA needs to exploit AM technology as a lead-time and inventory reduction enabler.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	-	-	10.924
FY 2017 Plans: The Subsistence Network plan in FY17 is to expand to the broader subsistence network; having awarded the Broad Agency Announcement in 2016. DLA will work STPs with the community of practice partners of the military services, industry and academia. SUBNET plans to improve process capabilities by identifying targets for product, automation and business operation changes, and implementing solutions in the Subsistence Supply Chain to produce such improvements as shorter lead times, higher throughput, reduced inventory and overhead cost, and improved quality. The STPs are required to have a business case, developed in advance to include specific metrics for success as well as return on investment where applicable to ensure that all SUBNET STPs are fully documented, all projects have the potential for implementation in industry; and all projects address a specific DoD/DLA need. The Castings program will receive a significant increase in funding starting in FY17 to cover most of the unfunded requirements identified during the PBR 17 process. Projects identified will investigate, develop and deploy innovative enterprise and technical solutions to improve casting supply chains for the Department of Defense and the Defense Logistics Agency to support the warfighter. Contracts will be competitively awarded in FY17. Proposals are required to include a business case with specific metrics and transition plan for success. The Forging program will receive an increase in funding to cover most of the unfunded requirements identified during the PBR17 process. Proposals are required to include a business case with specific metrics and transition plan for success. The Forging consortium will also pursue additional forging manufacturing advances from successful DLA SBIR projects selected in FY2014.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The Battery Network funding will be applied to pursue additional projects including production readiness of lithium conformable soldier batteries, military ground vehicle batteries, and aviation batteries; manufacturing transition of legacy and obsolete lead acid and nickel cadmium batteries to advanced lithium-ion batteries; and battery manufacturing automation and optimization technologies. These projects will address pressing supply chain issues by migrating from declining manufacturing to a high growth industrial base, and will achieve cost reduction by optimizing the manufacturing design, assembly, and test processes. The Additive Manufacturing plan is for DLA to partner with the Military Services to use AM to produce parts. DLA and the Services will identify candidate parts, convert technical data to 3D format to facilitate AM, procure the parts, and document the process for AM benefits. The Services will review newly created technical data packages (TDP), test the parts, and qualify AM as an acceptable process to produce the parts. FY 16 – FY 20: Funding for Additive projects will be reallocated from other MA SFA thrusts and classified into the Additive Manufacturing Thrust.			
Accomplishments/Planned Programs Subtotals	-	-	10.924

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Subsistence Network acquisition strategy is delivery orders against competitively awarded IDIQ R&D contracts via the forthcoming BAA. The current contracts will reach the end of their base period of performance by December 2016. A new BAA has been drafted and will be released in January 2016 with award of contracts in FY16 and FY17. A Joint Steering Group made up of government representatives from the Military Services, DLA, U.S. Department of Agriculture, U.S. Public Health Center, and the Natick Soldier Research, Development and Engineering Center will review ongoing projects, identify new areas for investment, assess proposed projects, examine procedures and processes, keep abreast of new technologies, and understand DLA and DoD subsistence needs and requirements.

The Castings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and two contracts were awarded competitively September 2011. The current contracts reached the end of their base period of performance on September 30, 2016. A new BAA has been drafted and will be released in FY16 with award of contracts(s) in FY17.

The Battery Network plan is to establish contract partners through a competitive Broad Area Announcement (BAA) based upon proposals that demonstrated knowledge, experience, and expertise in the following areas of interest: Automation, Diminishing Manufacturing & Supply, Battery Safety, Reducing Acquisition Costs, Shelf Life, Supply Chain Logistics, Surge/Sustainment, and Technology Transition/Insertion. A Government Steering Group (GSG) of power source technical experts from the

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

military services R&D groups will inform general R&D requirements for supply chain and technology improvement. The plan also includes awarding Phase 2 and 3 projects from DLA's Small Business Innovation Research (SBIR) in advanced battery manufacturing technology.

The Acq. Strategy for Forgings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and a contract awarded September 2014.

The Additive Manufacturing plan will partner with the Military Services and use organic and commercial AM parts production capabilities.

E. Performance Metrics

The Battery Network plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Subsistence Network plan is to execute reductions in cost for shipping, storage, supply chain process, inventory, waste and inspections, as well as reduced lead times for combat ration production, field feeding equipment, garrison feeding and "market fresh."

For example, SUBNET will provide the following technical achievements: 1) a microwave-assisted capability to sterilize group-sized entrees and components, packaged in Institutional Sized Pouches (ISP) and Polymeric Trays and 2) identify and produce at least one or more alternate sealant layers that can be used by the rations industry to pack high acidic food products and to ensure uninterrupted supply of MRE rations.

The Castings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Forgings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Additive Manufacturing metric is the number of parts qualified for AM and the lead-time savings achieved to make small quantities of items.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	Clemson University : SC	0.000	-		-		0.015	May 2017	-		0.015	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Michigan State University : MI	0.000	-		-		0.015	May 2017	-		0.015	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contracts Accounting : NJ	0.000	-		-		0.000		-		0.000	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	SOPAKO Inc : SC	-	-		-		0.050	Apr 2017	-		0.050	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Illinois : IL	-	-		-		0.015	May 2017	-		0.015	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Tennessee : TN	-	-		-		0.050	Apr 2017	-		0.050	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Washington State University : WA	-	-		-		0.100	Apr 2017	-		0.100	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Cadillac Products Inc : MI	-	-		-		0.015	May 2017	-		0.015	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Oregon Freeze Dry Inc : OR	-	-		-		0.015	May 2017	-		0.015	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Research and Development Associates : TX	-	-		-		0.015	May 2017	-		0.015	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	The Wornick Company : AL	-	-		-		0.100	Apr 2017	-		0.100	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Sterling Foods : TX	-	-		-		0.100	Apr 2017	-		0.100	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Analytic Strategies LLC : VA	-	-		-		0.202	Apr 2017	-		0.202	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	-	-		-		4.592	Nov 2016	-		4.592	0.000	4.592	-
Casting Manufacturing Technology Process Development	C/CPFF	Global Support Services LLC : AK	-	-		-		0.150	Mar 2017	-		0.150	0.000	0.150	-
Casting Manufacturing Technology Process Development	C/CPFF	Honeywell International Inc : AZ	-	-		-		0.100	Feb 2017	-		0.100	0.000	0.100	-
Forging Sustainment Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	-	-		-		1.695	Mar 2017	-		1.695	0.000	1.695	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Alion Science and Technology Corporation : IL	-	-		-		1.445	Mar 2017	-		1.445	0.000	1.445	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Eskra Technical Products Inc : WI	-	-		-		0.300	Mar 2017	-		0.300	0.000	0.300	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	EaglePicher Technologies LLC : MO	-	-		-		0.350	Mar 2017	-		0.350	0.000	0.350	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Quallion LLC : CA	-	-		-		0.350	Mar 2017	-		0.350	0.000	0.350	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Saft America Inc : MD	-	-		-		0.350	Mar 2017	-		0.350	0.000	0.350	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	American Energy Technologies : IL	-	-		-		0.300	Mar 2017	-		0.300	0.000	0.300	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Giner Inc : MA	-	-		-		0.300	Mar 2017	-		0.300	0.000	0.300	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	PneumatiCoat Technologies : CO	-	-		-		0.300	Mar 2017	-		0.300	0.000	0.300	-
		Subtotal	0.000	-		-		10.924		-		10.924	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		0.000		10.924		-		10.924	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

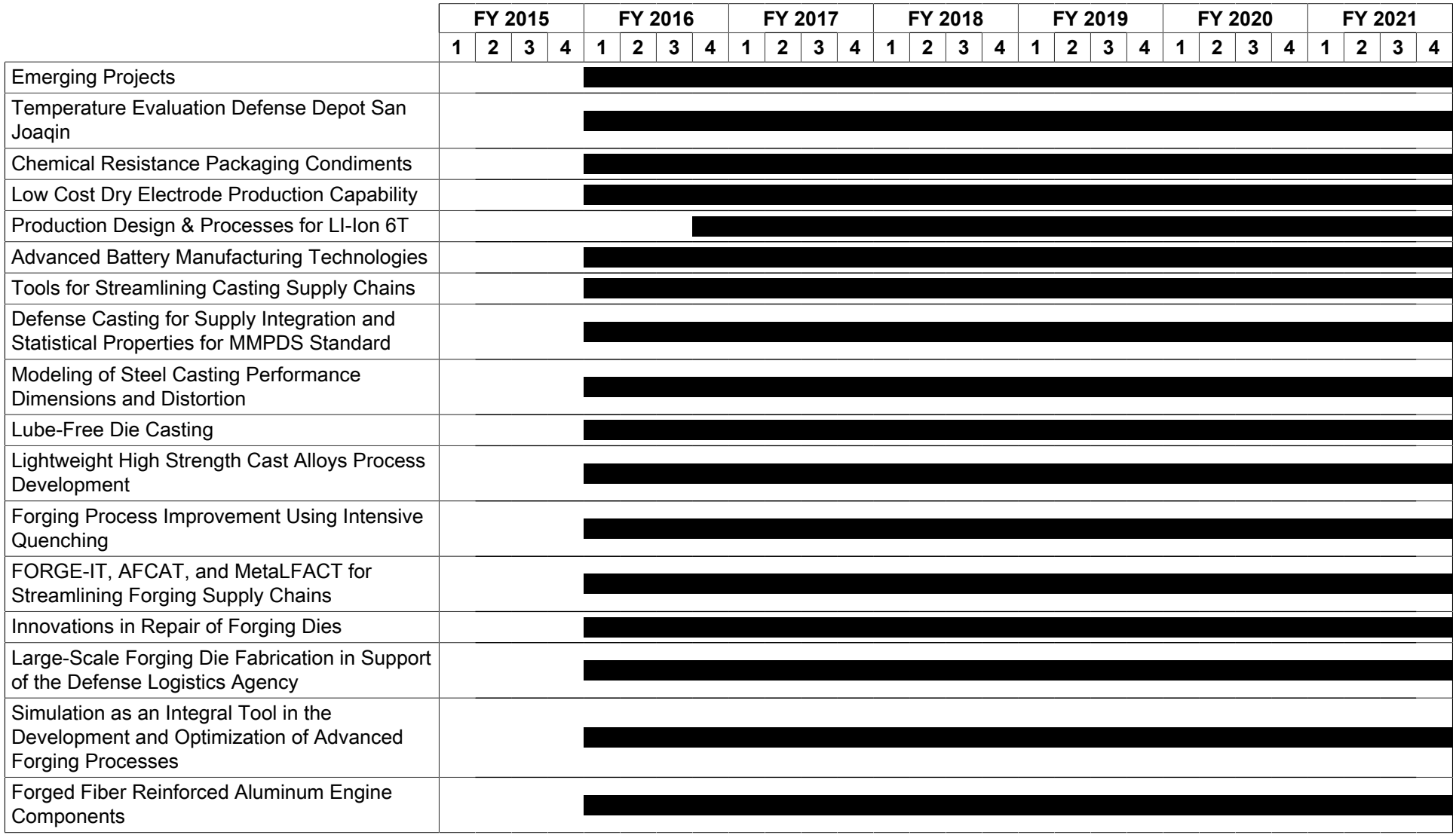

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

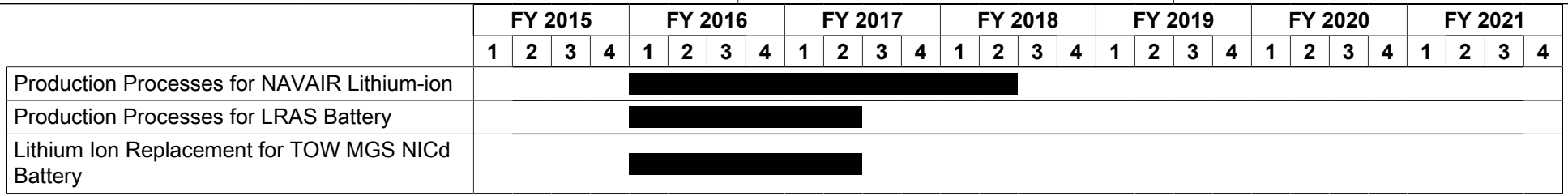

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Emerging Projects	1	2016	4	2021
Temperature Evaluation Defense Depot San Joaqin	1	2016	4	2021
Chemical Resistance Packaging Condiments	1	2016	4	2021
Low Cost Dry Electrode Production Capability	1	2016	4	2021
Production Design & Processes for LI-Ion 6T	4	2016	4	2021
Advanced Battery Manufacturing Technologies	1	2016	4	2021
Tools for Streamlining Casting Supply Chains	1	2016	4	2021
Defense Casting for Supply Integration and Statistical Properties for MMPDS Standard	1	2016	4	2021
Modeling of Steel Casting Performance Dimensions and Distortion	1	2016	4	2021
Lube-Free Die Casting	1	2016	4	2021
Lightweight High Strength Cast Alloys Process Development	1	2016	4	2021
Forging Process Improvement Using Intensive Quenching	1	2016	4	2021
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	1	2016	4	2021
Innovations in Repair of Forging Dies	1	2016	4	2021
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	1	2016	4	2021
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	1	2016	4	2021
Forged Fiber Reinforced Aluminum Engine Components	1	2016	4	2021
Production Processes for NAVAIR Lithium-ion	1	2016	2	2018
Production Processes for LRAS Battery	1	2016	2	2017
Lithium Ion Replacement for TOW MGS NICd Battery	1	2016	2	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	-	0.000	0.000	16.923	-	16.923	19.056	18.738	18.902	19.360	Continuing	Continuing

A. Mission Description and Budget Item Justification

The High Quality Sources SFA are 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 former Material Acquisition Electronics program.

The Material Acquisition Electronics roadmap has four major thrusts in Digital Microcircuits: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. The Roadmap also includes a new major thrust area: Linear Microcircuits. 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 17 and beyond. Without the technologies planned on the MAE Roadmap, DLA will not be able to support DoD's requirements for high quality spare parts for critical electronic systems and subsystems.

The Strategic Materials roadmap is a new thrust for the DLA Mantech program. It is designed to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently process or recover strategic materials. Domestic capabilities can enhance national security and potentially reduce Defense Stockpile requirements.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Maintaining Viable Supply Sources (formerly High Quality Sources)	-	-	16.923
FY 2017 Plans: MAE will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. MAE will begin a major new thrust in emulation to address Linear Microcircuits in addition to its traditional focus on Digital. Several efforts will address basic design, manufacturing, electrical test and quality/reliability requirements for establishing a basis for product-oriented developments across the FYDP. MAE will also complete development and transition Advanced Schottky TTL Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE will also continue development of additional emulation capabilities including TTL-Compatible CMOS. MAE will also initiate several new implementations including development of a 1 million gate Application-			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Specific Integrated Circuit (ASIC) and 512K Read-Only and Random-Access Memory Emulation Capabilities. It will complete prototyping 350 nanometer emulation circuitry, bringing emulation capability that re-establishes sources for additional NSNs. Strategic Materials: A request for white paper proposals was recently added to DLA's Emerging R&D Requirements BAA for critical initial manufacturing technology requirements in domestic high strength carbon fibers. Additional targeted requirements will be determined with DLA Strategic Materials. Targeted requests for proposals will be conducted to address specific needs and opportunities to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently produce strategic materials. Manufacturing technologies and capabilities are expected to transition to Title III or specific Weapon System Program funds for industrial base qualification.			
Accomplishments/Planned Programs Subtotals	-	-	16.923

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

MAE efforts are incremental funding on a competitive awarded 5 year contract.

Strategic Materials efforts will be competitively evaluated and awarded using Broad Agency Announcement (BAA) procedures.

E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production. Each technology implementation increases the breadth of microcircuit part types which can be returned to a procurable status; improving readiness and avoiding the need to redesign at the next-higher level. Potential benefit to hundreds of weapon systems.

Strategic Materials: Develop roadmap and transition targeted manufacturing technologies.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Electronic Device Manufacturing Technology Process Development	C/CPFF	SRI International : CA	0.000	-		-		16.523		-		16.523	0.000	16.523	-
Digital Electronic Device Manufacturing Technology Process Development SETA	MIPR	SPAWAR : CA	0.000	-		-		0.400		-		0.400	0.000	0.400	-
		Subtotal	0.000	-		-		16.923		-		16.923	0.000	16.923	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		0.000		16.923		-		16.923	0.000	16.923	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

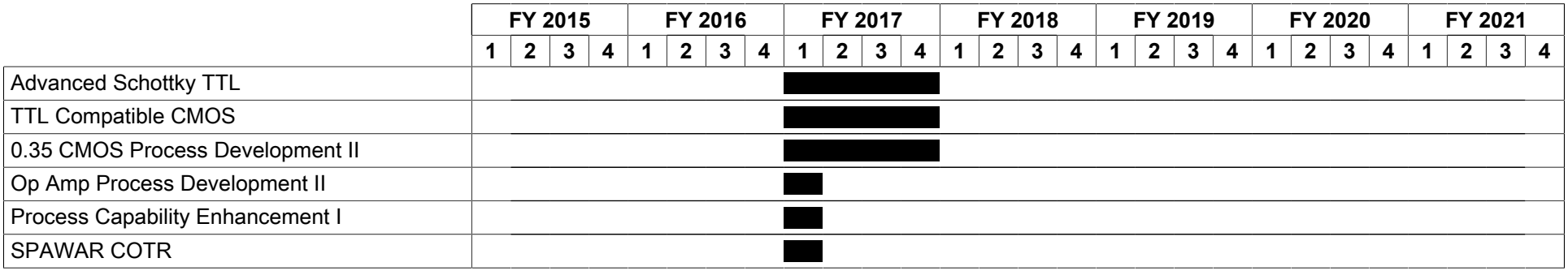

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Advanced Schottky TTL	1	2017	4	2017
TTL Compatible CMOS	1	2017	4	2017
0.35 CMOS Process Development II	1	2017	4	2017
Op Amp Process Development II	1	2017	1	2017
Process Capability Enhancement I	1	2017	1	2017
SPAWAR COTR	1	2017	1	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S / *Manufacturing Technology Program (ManTech)*	Project (Number/Name) 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*	-	0.000	0.000	3.412	-	3.412	4.462	4.434	4.462	4.499	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Improving Technical and Logistics Information Strategic Focus Area (SFA) projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) (P.E. 0603712S) within its scope. The movement of the DLIR related work from P.E. 0603712S to the DOD ManTech Program aligns the funding to the critical interface between DLA and industry and away from internal DLA operations.

The MUST focus addresses GAO Report 12-707 recommendations that DOD to establish a "knowledge-based approach" to collaborate on define and communicate of military unique requirements. DLA has the responsibility to communicate and manage 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 reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

The DLIR Model Based Enterprise effort will develop capabilities to systematically accept engineering and design data from the Military Services, validate and store item technical data in 3D models. There are two classes of data that must be addressed: newly designed parts for systems still in development and legacy parts for systems that are in sustainment. The problem with newly designed parts is capturing the complete and accurate designs. The legacy parts do not have digital engineering models which recreating the design in contemporary engineering systems.

The Technical and Logistical Data Interoperability will pioneer methods to capture data from military Services, Original Equipment Manufacturers (OEMs), and suppliers to form a seamless thread of interoperable and linked data models.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration	-	-	3.412
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continue the distributed pilots and begin transition of the technology into the supply chain. Expand the number of companies participating in the pilots and validating the benefits of the knowledge based approach to IIE development.			
Accomplishments/Planned Programs Subtotals	-	-	3.412

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Delivery/Task Orders are awarded against a competitively awarded IDIQ contracts.

E. Performance Metrics

The metrics for ICC are error elimination in engineering and technical data, including omissions and uncertainties in specifications, streamlining vendor level of effort associated with completing procurements, and improved collaboration among the Services, DLA and the industrial base. The result will lead to reduced lead-time, inventory and to avoid the costs of defective material.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	AdvanTech STP : MD	0.000	-		-		0.615	May 2017	-		0.615	0.000	0.615	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Logistics Managment Institute : VA	0.000	-		-		0.641	Jan 2017	-		0.641	0.000	0.641	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	XSB Inc. : NY	0.000	-		-		0.615	May 2017	-		0.615	0.000	0.615	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Clemson Partner : SC	0.000	-		-		0.015	Jun 2017	-		0.015	0.000	0.015	-
Automatic Extraction of Product Lifecycle Management Data	C/CPFF	XSB Inc. : NY	-	-		-		1.526		-		1.526	0.000	1.526	-
		Subtotal	0.000	-		-		3.412		-		3.412	0.000	3.412	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		0.000		3.412		-		3.412	0.000	3.412	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*

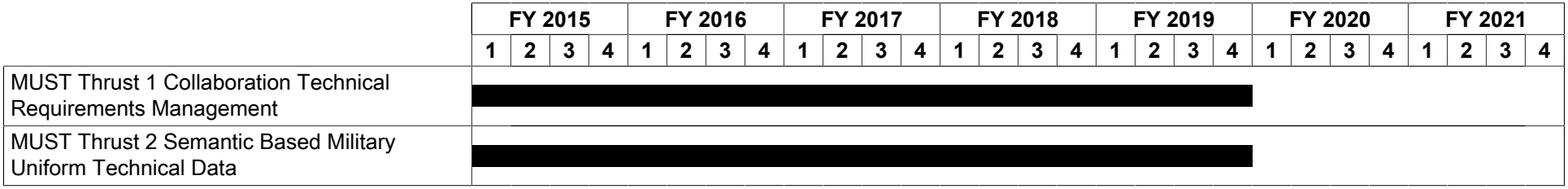

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603680S / *Manufacturing Technology Program (ManTech)*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MUST Thrust 1 Collaboration Technical Requirements Management	1	2015	4	2019
MUST Thrust 2 Semantic Based Military Uniform Technical Data	1	2015	4	2019

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	82.806	22.224	15.537	11.011	-	11.011	11.230	11.520	11.834	12.133	Continuing	Continuing
1: *Medical Logistics Network (MLN)*	8.382	1.952	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
2: *Weapon System Sustainment (WSS)*	23.991	5.634	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
3: *Supply Chain Management (SCM)*	14.844	5.730	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
4: *Strategic Distribution & Disposition (SDD)*	17.345	2.051	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
5: *Energy Readiness Program (ERP)*	10.735	5.061	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
6: *Defense Logistics Information Research (DLIR)*	7.509	1.796	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
7: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	0.000	0.000	3.423	2.371	-	2.371	2.617	2.681	2.750	2.818	Continuing	Continuing
8: *Improving Logistics Processes (formerly Logistics Process)*	0.000	0.000	7.042	5.236	-	5.236	5.757	5.901	6.051	6.201	Continuing	Continuing
9: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	0.000	0.000	5.072	3.404	-	3.404	2.856	2.938	3.033	3.114	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency is responsible for providing to the Military Services, and other Federal Agencies, as well as combined and allied forces the full spectrum of logistics, acquisition and technical services. DLA sources and provides nearly 100 percent of the consumable items the military forces need to operate – including food, fuel and energy, uniforms, medical supplies as well as construction and barrier equipment. DLA supplies more than 85 percent of the military's spare parts, provides logistics information data and products, manages the reutilization of military equipment, and offers document automation and production services. DLAs Research and Development (R&D) program helps ensure that advanced logistics concepts and business processes are available in order to accomplish the agency's

mission with the leanest possible infrastructure, using the best commercial and government sources and applying most effective business processes. The Logistics R&D program develops and demonstrates high risk, high payoff technology that provides a significantly higher level of support at lower costs than would be otherwise attainable. The program has a proven track record of implementation and benefits.

In December 2013, the DLA Director called for greater flexibility within the R&D program in support of the agency's efforts to achieve its mission. As a result, the R&D program is evolving from single supply chain efforts to Strategic Focus Areas (SFAs). The SFAs will support DLA's efforts to make the improvements needed to maintain mission readiness rates in a constrained budget environment.

The three Strategic Focus Areas were renamed in FY 17-FY 21 to more clearly capture their focus and scope:

1. Enhancing Analysis, Modeling, and Decision Support (formerly Analytic and Decision Support): R&D 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.
2. Improving Logistics Processes (formerly Logistics Processes): R&D efforts to develop and implement advanced technology in logistics processes over and above current baseline systems.
3. Emergent Logistics R&D Requirements (formerly Innovative Products and Services for Customers): R&D Efforts to support emergent Logistics R&D requirements that arise out of the budget cycle. These out of cycle requirements always occur. The SFA begins new projects in a timely manner without disrupting ongoing projects by funds reallocation. This SFA includes all DLA supply chains and logistics processes.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	16.836	16.543	16.949	-	16.949
Current President's Budget	22.224	15.537	11.011	-	11.011
Total Adjustments	5.388	-1.006	-5.938	-	-5.938
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.000			
• Congressional Rescissions	-0.005	-			
• Congressional Adds	4.500	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.485	-			
• SBIR/STTR Transfer	-0.592	-			
• FY17 Fund Realignment	-	-	-4.646	-	-4.646
• FFRDC	-	-0.006	-	-	-
• AT&L Top-Line Reduction	-	-	-1.200	-	-1.200
• Inflation for Non-Pay/Non-Fuel purchases	-	-	-0.092	-	-0.092

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603712S *I Logistics Research and Development Technology (Log R&D)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: 5: *Energy Readiness Program (ERP)*		
Congressional Add: *Innovative industrial practices for the co-production of fuels, chemicals, and wood fiber products to meet DoD bulk fuel requirements*	0.000	-
Congressional Add Subtotals for Project: 5	0.000	-
Congressional Add Totals for all Projects	0.000	-

Change Summary Explanation

During FY 2017 – FY 2021 funds were realigned from PE LOG R&D (0603712S) to the Industrial Preparedness – Manufacturing Technology Program (PE 0708011S). This realignment was needed to accommodate high priority requirements within DLA to improve the industrial base that supports critical weapon systems. In FY17, $4.646M was realigned from LOG R&D to MANTECH for these high priority requirements.

The consequences to the realignment include: The Medical On-Demand Business Analytics (ODBA) capability will be delayed depriving DLA end-users the ability to easily access and navigate the data from a single interface without requiring the knowledge of database access language (SQL). The Supply Chain management project reductions means additional anti-counterfeiting technology will not be fully developed and implemented, increasing the risk that counterfeit parts will enter the DOD supply system. Reductions to the Energy readiness program mean cost increases to the Services for fuel because fewer alternative fuel additives will be available. Modeling and Simulation tools will not be available for DLA to optimize operations and logistics processes.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 1 / *Medical Logistics Network (MLN)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Medical Logistics Network (MLN)*	8.382	1.952	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

FY2016-FY2020 funding for this effort is split and realigned to Strategic Focus Areas #7, Analytic and Decision Support, and #8, Logistics Processes, depending on the nature of the specific R&D activity being performed.

The Medical Logistics Network (MLN) program supports the Medical Directorate's mission to develop and implement the critical logistics and medical supply chain business practices that ensure the cost-effective and efficient distribution of medical materiel to the full range of Military Health System operations.

The Medical Logistics Network (MLN) program anticipates future medical logistical requirements and develops strategies and tools to meet these requirements. Operating in the unique DoD-Commercial medical logistics environment, the Medical Logistics Network program develops processes for management of DoD Medical Logistics to ensure effective and safe medical supplies support the warfighter. These business process improvements may have potential extensions to other supply chains.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Medical Logistics Network Accomplishments/Plans	1.952	0.000	-
FY 2015 Accomplishments: In FY2015 work continued on the On-Demand Business Analytics (ODBA) project, the Fair and Reasonable Evaluation (FRE) project, and the Clinical Standardization project. Additionally, Advancing Cold Chain Management (ACCM) executed a sub-project in FY2015. MLN Success: The Trade Agreement Act (TAA) requires the Government to acquire end-products which are Manufactured or Substantially Transformed in either the U.S. or a Qualifying or Designated Country, unless there are no offers of such end-products or the offers of such end- products are insufficient to fulfill the Government's requirements. In FY2015 MLN undertook the development of an improved and comprehensive web based custom software solution to automate and support the TAA Compliance Management business function of Customer Pharmacy Operations Center (CPOC) team.			
FY 2016 Plans: Efforts related to MLN have been moved to the Analytic and Decision Support (A&DS) and Logistics Processes Strategic Focus Areas. On-Demand Business Analytics (ODBA), in year 3 of 3, is planned to transition in FY2016.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 1 / *Medical Logistics Network (MLN)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Additionally, the Medical Object Oriented Data Sustainment (MOODS) Project will be initiated in FY2016. MOODS will improve processes and tools to sustain Joint Task-Time-Treater (JTTF) data which will be used by military services to create medical supply forecasts that are based on expected patient treatments. The JTTF helps to define supplies and equipment to treat a population at risk in terms of specific medical conditions. The current processes to sustain JTTF are extremely complex, improvement will help to optimize the standard of care that Warfighters receive.			
Accomplishments/Planned Programs Subtotals	1.952	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The On-Demand Business Analytics (ODBA) project was competitively bid as a task order on the Defense Logistics Standard Support Blanket Purchase Agreement (DMLSS-W BPA). All new project execution work is being solicited through the DLA R&D Emergent Requirements 2 Broad Agency Announcement (BAA).

E. Performance Metrics

Defense Medical Logistics Transformation (DMLT): 1) The percentage of requirements supported by architecture products – 100% of the MedSurg Prime Vendor Program's Gen IV Requirements were supported by architecture products. 2) Measurement of compliance with laws and regulations (e.g. Clinger-Cohen Act) that require complete enterprise architecture- 93.0% of required products passed first certification review (based on MS-B and CDR).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 2 / *Weapon System Sustainment (WSS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Weapon System Sustainment (WSS)*	23.991	5.634	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

FY2016-FY2020 funding for this effort is split and realigned to Strategic Focus Areas #7, Analytic and Decision Support, and #8, Logistics Processes, depending on the nature of the specific R&D being performed.

Support Defense Logistics Agency (DLA) Strategic Plans Goals 1.) Warfighter Support) and 2.) Stewardship Excellence. The program spans multiple weapon systems and supply chains to improve internal processes, provide new methods, reduce costs and lead times, and ultimately, improve readiness for DLA customers.

The program is focused in three initiatives:
1.) Planning Process Improvement: The program improves elements of current inventory policy models, assesses potential benefits of new technologies and seeks more efficient approaches to deliver customer requirements while reducing inventory and order fulfillment costs.

2.) Technical/Quality Process Improvement: The program improves internal efficiency and customer satisfaction through new tools and methods to proactively address supply issues resulting from current technical/quality processes.

3.) Procurement Process Improvement: The program will demonstrate tailored data collection and business processes for well-defined subsets of suppliers and procurement types to improve supplier responsiveness, cycle time and cost.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Weapon System Sustainment	5.634	0.000	-
FY 2015 Accomplishments: Planning Process Improvements: The Supplier Initiated Orders (SIO) project was completed and transitioned to DLA Aviation, which is using the SIO method with Boeing and GE. Substantial cost reductions and improved performance are being realized. Transition to other Aviation weapon systems is on hold until DLA J6 resources are available to move forward with the implementation of the SIO automated workflow. The FINISIM, Returns and Peak/Next Gen enhancements projects were completed and transition efforts started by J343. Peak/Next Gen is being used to set inventory levels for more than 500,000 items, and continues to allow PLFAs to meet stringent Material Availability goals. A project was initiated to improve the accuracy of PLT estimates which will improve support to warfighters and reduce overstocking. A project was initiated to pilot the use of Vendor Owned Inventory, a commercial practice known to reduce costs through more effective inventory management. A new project will develop techniques to link parts in indentured bills of materials to Service maintenance and parts usage data, and use			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 2 / *Weapon System Sustainment (WSS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
modeling and simulation to provide a better estimate of demand for those parts. A Weapon System Demand Mapping project was established to link sales, orders and requisition information to the weapon system the ordered items are used on, which will enable improved collaboration among DLA, its suppliers and its customers. Collaborative efforts were continued with the Planning team to develop new projects for FY 2016 awards. Technical/Quality Process Improvements: Three new projects were started in FY 2015. Technical Data Availability will initiate an attack on the problem of lengthy delays in determining if technical data is current by assessing Services' systems for configuration management could be automatically accessed by EBS or some other method. As part of DLA's initiative in Additive Manufacturing (AM), a project was awarded to take parts from identification of applicability through final approval by the appropriate Service, which will clarify the issues associated with obtaining Service approvals and identify some approaches to resolving those issues. The Cost of Quality in Procurement project will identify and document the specific contractor/bidder characteristics that distinguish the need for oversight, the appropriate oversight actions, and the associated cost of performing the actions. Collaborative efforts were continued with the Technical/Quality team to develop new projects for FY 2016 awards. Procurement Process Improvements: The Performance-Based Logistics (PBL) Process Improvement project provided recommendations to DLA senior leadership for how to improve DLA's use of PBL in its operations. A project was initiated to determine the issues and potential benefits of moving PBL storage and distribution functions from commercial sites to DLA Distribution Centers. A project was awarded to develop improvements to the automated bid evaluation process to reduce the number of manual reviews in order to reduce cost of DLA's operations and reduce the time to award purchase orders. Collaborative efforts were continued with the Procurement Process Owner and his team to develop new projects for FY 2016 awards. ***FY 2016 Plans:*** Funding and efforts related to Weapon Systems Sustainment transferred to Analytic and Decision Support and Logistics Processes.			
Accomplishments/Planned Programs Subtotals	5.634	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

A competitive BAA was issued and awarded in FY 14. Delivery orders will be placed against the contract.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 2 / *Weapon System Sustainment (WSS)*

E. Performance Metrics

The WSS program supports the Director's strategic goals of Warfighter First, Strategic Engagement, Financial Stewardship and Process Excellence. Projects completed in FY2015 reduced material costs, improved the efficiency of the Material Returns process, reduced backorders, and reduced procurement workload.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 3 / *Supply Chain Management (SCM)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3: *Supply Chain Management (SCM)*	14.844	5.730	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

DLA operates in a very dynamic environment. To meet customer expectations DLA must be able to address problems in a timely manner and be able to respond to emerging opportunities. The Supply Chain Management Program within R&D provides the Agency with the resources needed to quickly take advantage of new ideas emerging from the Center Commanders, Process Owners, or Staff Directors.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Supply Chain Management Accomplishments/Plans	5.730	0.000	-
FY 2015 Accomplishments: During FY2015 Supply Chain Management will invest in the technologies to implement advanced Supply Chain Management techniques into DLA's Supply Chains. DLA is expecting to reduce the production lead-time needed to produce critical DLA Land and Maritime items. Supply Chain Management initiated an out of cycle requirement to assure the supply of critical carbon fiber for strategic systems and new starts in additive manufacturing. R&D awarded Strategic Materials R&D projects on DLA's Emerging R&D Requirements BAA for critical initial manufacturing technology requirements in domestic high strength carbon fiber material testing.			
FY 2016 Plans: Funding and effort related to Supply Chain Management transferred to Innovative Products and Services for Customers			
Accomplishments/Planned Programs Subtotals	5.730	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Projects are awarded following competitive Broad Agency Announcement acquisition processes and delivery orders against competitively awarded IDIQ contracts.

E. Performance Metrics

SCM is measured on the ability to meet emerging needs that occur out of phase with the budget cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 3 / *Supply Chain Management (SCM)*

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 4 / *Strategic Distribution & Disposition (SDD)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4: *Strategic Distribution & Disposition (SDD)*	17.345	2.051	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program improves DLA's distribution and disposition capabilities, operational effectiveness, and efficiency in support of the Services, COCOMs, and DOD in CONUS, OCONUS, and deployed locations. Its long-range objectives include but are not limited to: 1) Continued improvement and integration of DLA, TRANSCOM, and Joint Service logistics planning, visibility, and Command and Control (C2) capabilities for military and humanitarian deployments; 2) Development and integration of advanced deployable distribution and disposition capabilities, reducing DLA's expeditionary footprint while improving Warfighter support and resource stewardship; 3) Improvements to DLA Distribution centers and DLA Disposition Services through insertion of state-of-the-art technologies, including intelligent material handling equipment, communications, and workload forecasting tools; 4) Distribution and Disposition workforce developments through advanced training methods and technologies; and 5) Intelligent end-to-end supply chain management from DLA's inventory control points, through its distribution centers to customers' and back to DLA Disposition for final disposition.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Strategic Distribution & Disposition (SDD) Accomplishments / Planned Program	2.051	0.000	-
FY 2015 Accomplishments: Completed a DEMIL "C" vehicle sales project culminating in a Business Case Analysis (BCA) that identified three models of HMMWV suitable for public sale after DEMIL. Courses of action are anticipated to yield up to $155.9M in vehicle sales. Began work on Distribution Automation/Robotics Project designed to improve warehouse performance by incorporating cutting-edge technology.			
FY 2016 Plans: Efforts related to the SDD Program have been moved to the Enhancing Analysis, Modeling, and Decision Support and Improving Logistics Processes Strategic Focus Areas (SFA).			
Accomplishments/Planned Programs Subtotals	2.051	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 4 / *Strategic Distribution & Disposition (SDD)*

E. Performance Metrics

SDD improves DLA distribution and disposition capabilities. At least 30% of the completed projects will transition. OSD-C financial metrics (obligation and disbursement) will be achieved.

SDD Analytic and Decision Support (A&DS): planned technical performance metrics include completed CAD 2D/3D modeling and simulation analyses of the layout/ design of the EDC in New Cumberland, PA, and a completed Feasibility Study/BCA to determine the need, location, resources, and equipment requirements for a DLA Disposition Customer Kiosk prototype.

SDD Logistics Processes (LP): planned technical performance metrics include a completed survey of technology (report) identifying technology applicable to DLA's warehouse and distribution operations and leveraging Logistics R&D to test commercial applications via the Warehouse Automation and Robotics Exploratory Project (WAREP).

Additionally, SDD will test and document new methodologies and technologies for maintaining DLA Distribution batteries and decreasing battery corrosion due to sulfation. Performance metrics include completed and documented methodologies and test plans as well as completed test results (reports).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 5 / *Energy Readiness Program (ERP)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
5: *Energy Readiness Program (ERP)*	10.735	5.061	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Program Management Office Support (PMO) for developing program strategies and goals, preparing documentation for the program, and performing quick reaction studies, including Congressionally Mandated Studies (CMS) and analysis. Alternate Energy Development (AED) to include test and certification to support the addition of synthetic and alternative fuels to mobility fuel specifications and acquisition plan; renewable fuels studies and planning; continued study of directives related to the implementation of alternative fuels and renewable energy. Improving Class IIIB supply chain through Current Product Improvement (CPI) (such as the study and development of fuel additives and studies to increase sources of supply) and Infrastructure & Process Improvement (such as the development of analytical tools).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Energy Readiness Program (ERP) Accomplishments/Plans	5.061	0.000	-
FY 2015 Accomplishments: Continued PMO support in program implementation and planning. Continued support of alternative/renewable energy solution study, test, and demonstration. Continued support Class IIIB supply chain through product improvement to increase sources, improve quality, and reduce cost. Continue to support infrastructure & process improvements. Projects successfully completed projects during FY 15 included “Field Evaluation of Automatic Particle Counters for Aviation Fuels” and “Characterization of Light Cycle Oil Contaminants in Fuels”, both of which have yielded results which will enhance DLA Energy’s capabilities in delivering quality on-spec fuel products to the services and significantly decrease instances of product failures, replacements and military services equipment maintenance efforts which result in mission delays or failures. Transitioning of the results of these project efforts into DLA and DoD specifications, standards and quality surveillance/assurance procedures is currently ongoing.			
FY 2016 Plans: Efforts funding related to Energy Readiness have been moved to the Innovative Products and Services for Customers Strategic Focus area. Continued PMO support in program implementation and planning. Continued support of alternative/renewable energy solution study, test, and demonstration. Continued support Class IIIB supply chain through product improvement to increase sources, improve quality, and reduce cost. Continue to support infrastructure & process improvements.			
Accomplishments/Planned Programs Subtotals	5.061	0.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 5 / *Energy Readiness Program (ERP)*

	FY 2015	FY 2016
Congressional Add: Innovative industrial practices for the co-production of fuels, chemicals, and wood fiber products to meet DoD bulk fuel requirements ***FY 2015 Accomplishments:*** Needs to be updated	0.000	-
Congressional Adds Subtotals	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N//A

E. Performance Metrics

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Technical Achievements: 1. Development of improved test methods for the detection of unstable light cycle oil contaminants in jet fuels; 2. Development of improved test methods to determine the long-term storage stability of diesels fuels per MILSPEC requirements; 3. Development of acceptable lubricity limits/requirements for jet fuels derived from alternative (non-petroleum) sources).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 6 / *Defense Logistics Information Research (DLIR)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
6: *Defense Logistics Information Research (DLIR)*	7.509	1.796	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

FY2016-FY2020 funding for DLIR have been reprogrammed to the DLA Manufacturing Technology Program (P.E. 0708011S). This change will better align the technical work with the OSD Manufacturing Technology Program initiative for the Model Based Enterprise (MBE). The MBE will help DOD move to a completely digital environment for design and engineering data needed to conceive, design, build and support weapon systems.

The Defense Logistics Information Research (DLIR) program objective is to research, identify, and implement potential or existing technologies using high-risk, high payoff tools, methods, techniques, and products. The DLIR program partners with commercial industry to perform short-term projects (STPs) in various logistics business areas which align with the DLA strategic vision. DLIR improves functional and business processes using the latest technologies available to support the nation's warfighter. The technical areas of interest is the development of Logistics Data Interoperability & Availability. Enhances the functionality and compatibility of data in a complex data environment using supply chain relationships and lifecycle management to allow flexible visibility.

DLIR is working several short term projects in the area of interest. These efforts are positioning DLA to move towards a model-based enterprise (MBE), using and acquiring 3-Dimensional model-based data instead of 2-Dimensional hardcopy for weapon system sustainment and support.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Logistics Information Research (DLIR) Accomplishments/Plans	1.796	0.000	0.000
FY 2015 Accomplishments: Completed the concept of operations (CONOPS) for using Model based technical data in Procurement. Develop automated tools and methodologies to store and deliver 3 Dimensional model data to customers so they can use Additive Manufacturing to make the part. The goal is that DLA will store, stock, and ship the model, not the part.			
FY 2016 Plans: Efforts related to DLIR have been moved to the Industry and Customer Collaboration Strategic Focus Area. P.E. 0708011S			
FY 2017 Plans: Efforts related to DLIR have been moved to the Industry and Customer Collaboration Strategic Focus Area. P.E. 0708011S			
Accomplishments/Planned Programs Subtotals	1.796	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 6 / *Defense Logistics Information Research (DLIR)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

" Transition may include two scenarios:
1) Transition applications behind the J6 firewall IAW the J6 Front door process.
2) Transition applications as a contractor hosted web based Software as a Service model "

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 7 / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
7: *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*	0.000	0.000	3.423	2.371	-	2.371	2.617	2.681	2.750	2.818	Continuing	Continuing

A. Mission Description and Budget Item Justification

R&D efforts undertaken to develop and implement 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 response to emerging market and customer requirements. Currently there are three major analytical thrusts: Planning Processes, Medical Supply Chain, and Distribution/Disposition. Planning processes model and simulate item and customer demand patterns to improve customer support, lower inventories, acquisition costs, and acquisition lead-times for hardware (Class IX items). Medical Supply Chain Modeling will provide DLA the capability to integrate DLA logistics data and commercial data with satellite and political maps; it will automate for DLA Medical planners the ability to identify entities such as suppliers, customers and vendor distribution centers to enhance spatial awareness of incidents such as catastrophic events and military contingencies. The Distribution/Disposition thrust will develop and implement analytical tools, models, and simulations of logistics and supply chain processes related to distribution and disposition.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Enhancing Analysis, Modeling, and Decision Support	0.000	3.423	2.371
FY 2015 Accomplishments: New start in FY 16			
FY 2016 Plans: Planning Process will focus on initial capabilities of supply chain risk management, examine the potential benefits of alternative ownership strategies for inventory and address ways to improve collaboration among DLA, its suppliers and its customers for more effective inventory management. Medical Supply Chain will transition the On-Demand Business Analytics (ODBA) capability. Strategic Distribution and Disposition (SDD) will conduct a current state simulation of DLA's East Coast Distribution Center (EDC). The current state simulation will be compared to new potential redesigns of the EDC. The most promising new designs will be simulated and compared to the current state for labor savings, reduction in fulfillment time/cycle, and reduction of Material Handling Equipment (MHE).			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 7 / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
SDD will also complete Phase I of the Warehouse Automation and Robotics Exploratory Project and provide an initial ROM BCA. ***FY 2017 Plans:*** MLN will transition the Clinical Standardization application to sustainment. A new project in Medical 3D Printing could be undertaken this year. Planning Process will focus on initial capabilities of Supply chain risk management, examine the potential benefits of alternative ownership strategies for inventory and address ways to improve collaboration among DLA, its suppliers and its customers for more effective inventory management. Collaborative efforts will be continued with the Planning Process Owner and his team to develop new projects for FY 2017 awards. Strategic Distribution and Disposition (SDD) will update the Warehouse Automation and Robotics BCA to include results of the East Coast Distribution Center (EDC) study. Additionally, SDD will assist in the economic analysis of new Lithium-Ion battery technology.			
Accomplishments/Planned Programs Subtotals	0.000	3.423	2.371

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Delivery orders will be issued against competitively awarded contracts.

E. Performance Metrics

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Additional and planned A&DS technical achievements include:

WSS -
Improvements in the planning processes for DLA managed items, more accurate estimates of the cost of medical material and improvements will be made in DLA's capability to plan for contingencies. Improvements in the planning process focus on objectives in the Director's Strategic Goals of Warfighter First (Objective 1:

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 7 / *Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)*

anticipate, assess and meet current and future Warfighter requirements) and Strategic Engagement (Objective 1: collaborate with providers to incentivize productivity and innovation, eliminate unproductive business processes, and address industrial base vulnerabilities).

SDD -
Planned technical performance metrics include completed CAD 2D/3D modeling and simulation analyses of the layout/design of the EDC in New Cumberland, PA, and a completed Feasibility Study/BCA to determine the need, location, resources, and equipment requirements for a DLA Disposition Customer Kiosk prototype. Additionally, SDD will assist in the economic analysis of new Lithium-Ion battery technology.

MLN -
Improved data access and navigation abilities from a single interface without requiring the knowledge of database access language (SQL) - ODBA.

Developing applications to effectively identify new contracting/sourcing opportunities for medical products based upon best-value criteria such as price, market share, and clinical attributes - Clinical Standardization.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	Project (Number/Name) 8 / *Improving Logistics Processes (formerly Logistics Process)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Improving Logistics Processes (formerly Logistics Process)*	0.000	0.000	7.042	5.236	-	5.236	5.757	5.901	6.051	6.201	Continuing	Continuing

A. Mission Description and Budget Item Justification

Logistics Processes are R&D efforts undertaken to develop and implement advanced technology in the internal DLA logistics processes. 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.
This strategic focus area has 4 thrusts: Technical/Quality Process Improvements, Selected Process Improvements, Medical Processes, and Distribution/Disposition Processes.

T/Q process improvements to reduce material and internal costs and improve support to warfighters. Services have engineering responsibility for most Class IX parts. Many T/Q sub-processes involve interactions with Service engineering functions, which often are time-consuming and costly. Other key T/Q sub-processes are essential to the procurement function, such as analysis of parts content, source capabilities and problem resolution.

Selected process improvements cover processes outside the scope of the Technical/Quality (T/Q) function. Although all DLA processes are in scope, the focus for FY 2016 is on the Procurement process, especially aspects driving internal costs and delays in awards.

Medical Processes will expand work in critical mechanisms to guarantee product quality of temperature-sensitive medical materiel distributed to our customers, and identify the most efficient and cost-effective means to deliver those medical products in accordance with FDA-labeled and other regulatory requirements.

Distribution and Disposition logistics processes deal with improving distribution and disposition capabilities, operational effectiveness, and efficiency. While numerous technologies and applications have been developed and exploited, DLA has not kept pace with the commercial industry in regards to modernizing its technology systems infrastructure, processes, or mobilizing information for personnel, customers, and processes.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Logistics Processes (LP)	0.000	7.042	5.236
FY 2015 Accomplishments: New Start in FY 16			
FY 2016 Plans: T/Q efforts will include transition of the Quality cost, organic manufacturing process and Critical Application item projects initiated in FY 15. In addition, a new effort will begin in expanding DNA Marking and developing methods to guard against malicious code entering the supply system through acquired items.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 8 / *Improving Logistics Processes (formerly Logistics Process)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Selected Process initiatives for FY 16 in the T/Q area include Cost of Quality in Procurement, Technical Data Availability, processes for Service approval of substituting Additive Manufacturing for selected parts, develop and demonstrate and approach to making information systems containing data on chemical content of parts interoperable to aid in identifying material risk, and creation of a decision support tool to identify problematic parts procurement much earlier.Initiatives in the Procurement area include Reducing Manual Reviews to cut cost and time, Proactive No-Bid Modeling to reduce time to award and improve support to warfighters, and eCommerce to cut internal and parts costs and reduce Production Lead Time. Medical Processes will continue to execute projects that support Advancing Cold Chain Management (ACCM). The Distribution and Disposition initiative will leverage emerging distribution and disposal technologies and state of the art reverse logistics. One promising new project is the DLA Disposition Customer Kiosk. The project will explore the feasibility of using self-service unmanned kiosk type collection points to improve efficiency, and eliminate and/or reduce appointment wait times for customers that use this new service, thereby creating just-in-time disposition services. ***FY 2017 Plans:*** Medical Processes will continue to execute projects that support Advancing Cold Chain Management (ACCM). Additionally, a new project in Medical 3D Printing could be undertaken this year. T/Q efforts will include transition of the Cost of Quality in Procurement and Agile Logistics for Acquisition and Regulated Materials Projects initiated in FY 15 and FY16, respectively. In addition, a new effort will begin in developing methods to guard against malicious code entering the supply system through acquired items. Additional new projects will be awarded as a result of collaborative planning efforts during FY16. Collaborative efforts will be continued with the Procurement and T/Q Process Owners and their teams to develop new projects for FY 2016 awards. Strategic Distribution and Disposition (SDD) will continue beta testing commercial automation and robotics applications as approved by DLA Distribution.			
Accomplishments/Planned Programs Subtotals	0.000	7.042	5.236

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 8 / *Improving Logistics Processes (formerly Logistics Process)*

E. Performance Metrics

At least 30% of the completed projects will transition. OSD-C financial metrics (obligation and disbursement) will be achieved. Additional technical achievements will include providing extreme ambient profiles for selected shipping lanes to assist in the thermal design of temperature controlled systems.

WSS -
T/Q and Procurement process improvement projects focus on objectives in the Director's Strategic Goals of Financial Stewardship (Objective 4: reduce overall DLA operation and maintenance costs) and Process Excellence (Objective 2: implement and integrate end-to-end process management to optimize enterprise initiatives.

SDD -
Planned technical performance metrics include a completed survey of technology (report) identifying technology applicable to DLA's warehouse and distribution operations and leveraging Logistics R&D to test commercial applications via the Warehouse Automation and Robotics Exploratory Project (WAREP).

Additionally, SDD will test and document new methodologies and technologies for maintaining DLA Distribution batteries and decreasing battery corrosion due to sulfation. Performance metrics include completed and documented methodologies and test plans as well as completed test results (reports).

MLN -

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 9 / *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*	0.000	0.000	5.072	3.404	-	3.404	2.856	2.938	3.033	3.114	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Innovative Products and Services for Customers Strategic Focus Area includes R&D efforts to develop new products and services for DLA customers. The Energy Roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels. The Supply Chain Management Roadmap addresses emerging and out of cycle requirements that always occur and new products and services developed by DLA.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Emergent Logistics R&D Requirements	0.000	5.072	3.404
FY 2015 Accomplishments: New start in FY 16			
FY 2016 Plans: Supply Chain Management addresses the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the Agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. Energy Readiness will focus on providing additional alternatives for military unique fuels, 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.			
FY 2017 Plans: Supply Chain Management addresses the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the Agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603712S / *Logistics Research and Development Technology (Log R&D)*	**Project (Number/Name)** 9 / *Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Additional targeted requirements will be determined with DLA Strategic Materials. Targeted requests for proposals will be conducted to address specific needs and opportunities to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently produce strategic materials. Manufacturing technologies and capabilities are expected to transition to Title III or specific Weapon System Program funds for industrial base qualification. Funding will be reallocated based on project requirements and reclassified into the Strategic Material Thrust. Energy Readiness will continue to focus on providing additional alternatives for military unique fuels, 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.			
Accomplishments/Planned Programs Subtotals	0.000	5.072	3.404

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Competitive awards against a DLA BAA or Delivery Orders against MILSVC IDIQ contracts.

E. Performance Metrics

Implementing new fuel supply technology into the industrial base and meeting emerging requirements and opportunities for logistics technologies that will provide better support to the DLA mission.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	116.465	29.533	29.888	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Capabilities Based Logistics*	7.342	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	7.342
2: *Deployment and Distribution Velocity Management*	6.869	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	6.869
3: *Cross Domain Intuitive Planning*	2.408	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	2.408
4: *End-to-End Visibility*	5.973	0.666	0.400	0.000	-	0.000	0.000	0.000	0.000	0.000	0	7.039
5: *Distribution Planning and Forecasting*	8.504	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	8.504
6: *Joint Transportation Interface*	14.917	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	14.917
7: *Distribution Protection/Safety/ Security*	15.135	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	15.135
8: *Command and Control/ Optimization/Modeling and Simulation*	35.724	21.735	16.492	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
9: *Cyber*	3.690	2.090	5.436	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
10: *Global Access*	15.903	5.042	7.560	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

A. Mission Description and Budget Item Justification

USTRANSCOM is tasked to provide globally integrated, agile deployment and distribution solutions as well as related enabling capabilities to support national security, force readiness and sustainability within an increasingly constrained defense budget. Unpredictable/extended global distribution routes, limited visibility of sustainment requirements, force packaging limitations, lift constraints, anti-access/area denial concerns, complex supply chains, as well as non-networked battlefield command and control, planning, and decision support tools impede timely customer logistical support. To project unimpeded global power and influence, USTRANSCOM must have access to relevant, real-time information, invest in enabling capabilities that contribute to mission success, ensure the viability of our capabilities, and implement a relevant transportation strategy. Effective knowledge sharing, decision support and transparency across the joint logistics enterprise, facilitated by secure enterprise-

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603713S *I Deployment and Distribution Enterprise Technology*

wide visibility into logistical processes as well as the ability to effectively collaborate/operate in a contested cyberspace, is required to promote the effective/efficient/ responsive global management of force projection and sustainment resources.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	29.683	29.888	0.000	-	0.000
Current President's Budget	29.533	29.888	0.000	-	0.000
Total Adjustments	-0.150	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.150	-			

Change Summary Explanation

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 1 / *Capabilities Based Logistics*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Capabilities Based Logistics*	7.342	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	7.342

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

The Department requires procedures and technologies which provide enterprise-level capabilities critical to the distribution system to improve performance of the end-to-end DOD supply chain in direct support of the full range of military operations. Ability to rapidly respond to customers' changing demands, with a reliably high level of service. These needs include: capabilities which enhance any supply or transportation mission (aeromedical, air refueling, joint logistics over-the-shore, and seabasing); analysis, tailoring and implementation of selected best enterprise-level practices from industry; and tools/procedures to optimize transportation plus supply (distribution) plans and schedules in support of an entire operation. This project addresses the required mission support to combatant commanders and other customers in the area of capability-based logistics.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Capabilities Based Logistics	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Critical enterprise-level distribution system capabilities to improve DOD supply chain performance. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 2 / *Deployment and Distribution Velocity Management*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Deployment and Distribution Velocity Management*	6.869	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	6.869

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

DOD requires procedures/technologies targeted at optimizing throughput at the nodes and through the conduits of the deployment and distribution supply chains, from origin to point of use and return to include: inventory management enhancers (includes node cargo management/tracking); materiel handling innovations (including methods of reducing handling); improved physical access to nodes (includes aircraft all-weather visual systems); port throughput enhancements (includes in-port time reduction methods); and innovative delivery methods (for example, precision airlift, autonomous re-supply). This project addresses required mission support to combatant commanders and other customers of DOD's distribution and transportation systems in the area of deployment/distribution velocity management.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Deployment and Distribution Velocity Management	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Increase force projection and sustainment velocity. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 3 / *Cross Domain Intuitive Planning*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3: *Cross Domain Intuitive Planning*	2.408	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	2.408

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

Procedures/technologies which improve decision-making and collaboration within the supply chain, from the planning stage to real-time execution and retrograde operations, without need for highly specialized operators of the tools. Projects in this area address following areas: decision support tools for any echelon of the supply chain or decision-maker, distribution process simulations and models for analysis and training, distribution demand forecasting/execution monitoring tools, on-line training, automated decision-maker support (e.g., queuing, alerting, recommended courses of action), automated status monitoring with information fusion and drilldown capability, and resilient C2 infrastructure capabilities. This project will provide required mission support to combatant commanders and other distribution/transportation customers in the area of collaborative planning/execution/information sharing/decision support tools.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Cross Domain Intuitive Planning	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Improve decision-making and collaboration within the supply chain and focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 4 / *End-to-End Visibility*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4: *End-to-End Visibility*	5.973	0.666	0.400	0.000	-	0.000	0.000	0.000	0.000	0.000	0	7.039

Note

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

A. Mission Description and Budget Item Justification

Enhanced end-to-end visibility of all aspects of power projection/sustainment spectrum is required to improve the effectiveness/efficiency of deployment/distribution/ redeployment operations to ensure warfighter support and confidence. This requires investigation into next generation Automated Information Technology (AIT)/ Total Asset Visibility (TAV) technologies and/or container security to improve end-to-end distribution visibility, enhance planning/execution, and transform sustainment operations. Includes the ability to determine immediate, reliable, and accurate shipment status through system access or event management. Develop an over-arching process/system architecture which will integrate existing and innovative new programs across the supply chain to provide complete In Transit Visibility (ITV) data, to include visibility of non-DoD cargo during humanitarian/disaster relief operations. The ability of USTRANSCOM to supply transportation support for homeland defense and/or disaster relief depends on effective ways to link with other governmental and civilian agencies. Additionally need to explore the many barriers across the Joint Deployment and Distribution Enterprise (JDDE), to include non-DoD government entities, coalition partners, non-government organizations, and commercial industry, which can create confusion/conflict or detract from the optimization of the JDDE.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: End-to-End Visibility	0.666	0.400	-
FY 2015 Accomplishments: Begin development of an advanced predictive forecasting capability for better visibility and forecasting of Class IX (spare parts) demands, anticipate lift needs, and establish / measure lift priorities in terms of the operational availability implications of those demands on planned military operations. Complete process to determine parts failure/usage patterns and mission type/ environment to initiate sustainment support actions.			
FY 2016 Plans: Complete development of an advanced predictive forecasting capability for better visibility and forecasting of Class IX (spare parts) demands, anticipate lift needs, and establish / measure lift priorities in terms of the operational availability implications of those demands on planned military operations.			
Accomplishments/Planned Programs Subtotals	0.666	0.400	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603713S / *Deployment and Distribution Enterprise Technology*	**Project (Number/Name)** 4 / *End-to-End Visibility*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Project performance metrics are specific to each effort and include measures identified in the metric project plans. Project completions/success are monitored against schedules and deliverables stated in the statements of work. >80% transition rate of proven technologies to increase force projection and sustainment velocity. Ability to enhance the effectiveness and efficiency of DoD logistics/supply chain operations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 5 / *Distribution Planning and Forecasting*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
5: *Distribution Planning and Forecasting*	8.504	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	8.504

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

There is a lack of collaborative distribution planning, based on an understanding of aggregated customer requirements, for optimizing the end-to-end distribution process. Planning, forecasting and collaboration are insufficiently advanced to fully synchronize people, processes and assets to execute planned operations. Automated tools should be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems. Project investigates the need for flexible end-to-end enhanced modeling and simulation and collaborative decision support tools.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Distribution Planning and Forecasting	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Planning based on an understanding of customer requirements for optimizing the distribution process. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 6 / *Joint Transportation Interface*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
6: *Joint Transportation Interface*	14.917	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	14.917

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

Synchronizing strategic/theater delivery capabilities to meet increasingly dynamic customer needs. Transportation information exchange across the DOD is inhibited by the disparity of systems, differing data standards, and insufficient interfaces. Queries and retrieval of status and shipment information cannot be executed due to lack of connectivity between the various components of the supply chain. The ability to maintain situational awareness of movements at macro/micro (drill down) levels, with associated force and sustainment cargo on board; to track force packages progress, and rapidly determine the impact of any delays or changes to sailing progress and arrival at port of debarkation; and to conduct "what -if" impact assessment of possible changes to delivery asset's course, speed or departure/arrival information as it relates to force or force package delivery/impact of any change on the closure of force packages in theater is required. The ability of USTRANSCOM to supply transportation support for homeland defense and/or disaster relief depends on effective ways to link with other governmental and civilian agencies. Also need to explore the many barriers across the Joint Deployment and Distribution Enterprise (JDDE), to include non-DOD government entities, coalition partners, non-government organizations, and commercial industry, which can create confusion/conflict or detract from the optimization of the JDDE.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Transportation Interface	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Synchronizing, through information exchange, strategic/theater delivery capabilities to meet warfighter needs. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 7 / *Distribution Protection/Safety/Security*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
7: *Distribution Protection/Safety/ Security*	15.135	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	15.135

Note

Projects 1-3, 5-7 repackaged into new Projects 8-10 starting in FY2013 per ASD (R&E) recommendation.

A. Mission Description and Budget Item Justification

The Theater Commander has not always been able to provide the appropriate security in a timely manner during deployment. In some cases there are insufficient security assets to oversee convoy security in-country; therefore, all movement requirements are competing for the same limited resources. Additionally need to explore new, portable methods of detecting hazardous/asymmetric materials in very small quantities to support safe logistics operations. Also explore technologies to enhance the capability to deliver personnel/materiel to anti-access/austere airfields and seaports.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Distribution Protection/Safety/Security	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Providing the appropriate security in a timely manner during deployment and distribution operations. Plus focus on research and development to address warfighting requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 8 / *Command and Control/Optimization/ Modeling and Simulation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Command and Control/ Optimization/Modeling and Simulation*	35.724	21.735	16.492	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Capabilities which improve deployment, distribution and supply chain decision-making/collaboration (e.g., planning stage to real-time execution/retrograde operations) without need for highly specialized operators. Projects in this area address the following: decision support tools, distribution process simulations/analytics, distribution demand forecasting/execution monitoring, training, automated decision-maker support (e.g., queuing, alerting, courses of action), automated status monitoring with information fusion to include drilldown capability, and resilient C2 infrastructure capabilities. Current planning/forecasting/collaboration capabilities do not permit full synchronization of people, processes and assets to execute planned operations. Automated tools must be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems to include the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need. Transportation information exchange across the DOD is inhibited by disparate systems, multiple data standards and insufficient interfaces. The ability to rapidly determine the impact of any delays/changes and conduct "what -if" impact assessments on the closure of force packages is required. This project addresses the required mission support to combatant commanders and other customers in the area of C2, Optimization, and Modeling and Simulations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Command and Control/Optimization/Modeling and Simulation	21.735	16.492	0.000
FY 2015 Accomplishments: Start effort to provide ability to rapidly develop, assess, adapt, and execute plans in a dynamic environment. Start, at military installation Entry Control Facilities, to identify ways to reduce threat vehicle speeds and mitigate or defeat the threat through design changes. Start effort to plan and executing theater distribution of fuel and water. Continue the effort to develop the ability to effectively and efficiently schedule missions from all known sources of airlift requirements. Continue partnership with Air Force Institute of Technology to develop Modeling and Simulation Decision Support technologies. Continue partnership with Lincoln Labs for information technology system integration and prototype development. Continue effort to increase shared awareness, operational agility and optimize the use of the active duty air refueling (AR) fleet, during the short notice planning process, from a worldwide/fleet-wide perspective, as well as providing the ability to plan, if desired, using allied/coalition/international AR aircraft to refuel DoD aircraft. Continue development of robust modeling solutions in the face of uncertainty, provide the capability to model detailed enhanced business rules without major “surgery” or software development, and provide the ability to utilize sub-network modeling to streamline the modeling and analysis process. Complete development and spiral transition of collaboration & situational awareness technologies to provide dynamic planning and course of action development/execution capabilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603713S / *Deployment and Distribution Enterprise Technology*	**Project (Number/Name)** 8 / *Command and Control/Optimization/ Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Complete effort to provide a browser-based tool to capture user feedback/expertise/learning preferences and domain knowledge over time. Complete application of semantic technologies within the JDDE for data validation and correction. ***FY 2016 Plans:*** Begin comprehensive account of strategies, optional implementations & recommendations for enterprise-wide management of metadata. Continue development of robust modeling solutions in the face of uncertainty, provide the capability to model detailed enhanced business rules without major "surgery" or software development, and provide the ability to utilize sub-network modeling to streamline the modeling and analysis process. Continue effort to provide ability to rapidly develop, assess, adapt, and execute plans in a dynamic environment. Continue partnership with Air Force Institute of Technology to develop Modeling and Simulation Decision Support technologies. Continue partnership with Lincoln Labs for information technology system integration and prototype development. Continue effort to increase shared awareness, operational agility and optimize the use of the active duty AR fleet, during the short notice planning process, from a worldwide/fleet-wide perspective, as well as providing the ability to plan, if desired, using allied/coalition/international AR aircraft to refuel DoD aircraft. Continue the effort to develop the ability to effectively and efficiently schedule missions from all known sources of airlift requirements. Complete effort to plan and executing theater distribution of fuel and water. Complete effort to identify ways, at military installation Entry Control Facilities, to reduce threat vehicle speeds and mitigate or defeat the threat through design changes. Complete effort to plan and executing theater distribution of fuel and water. ***FY 2017 Plans:*** NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.			
Accomplishments/Planned Programs Subtotals	21.735	16.492	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603713S / *Deployment and Distribution Enterprise Technology*	**Project (Number/Name)** 8 / *Command and Control/Optimization/ Modeling and Simulation*

E. Performance Metrics

Project performance metrics are specific to each effort and include measures identified in the metric project plans. Project completions/success are monitored against schedules and deliverables stated in the statements of work. >80% transition rate of proven technologies to increase force projection and sustainment velocity. Ability to enhance the effectiveness and efficiency of DoD logistics/supply chain operations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 9 / *Cyber*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Cyber*	3.690	2.090	5.436	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

A. Mission Description and Budget Item Justification

USTRANSCOM requires mission assurance in a persuasive/dynamic cyber environment. USTRANSCOM requires the procedures/technologies to improve cyber surveillance and control of networks across multiple domains and the ability to continue critical network operations in contested unclassified and classified network environments. The Command also needs the ability to differentiate between valid/unauthorized users and determine/quantify the trustworthiness of hardware/software systems. Additionally must have the ability to rapidly analyze & correlate data regarding malicious activities, select/evoke real-time defense actuators, perform automated reasoning capabilities that address data quality issues, and the ability to rapidly return to a known/safe operating state.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Cyber	2.090	5.436	0.000
FY 2015 Accomplishments: Begin effort to identify and tailor best business practices, process improvement, knowledge management, and technology transition to operationalize cyber security. Start development of a prototype custom attribute solution with extensive documentation for open standards based identity providers. Continue to develop and deliver a set of services that will enable USTRANSCOM to recognize disruptive events or potential disruptive events, understand their impact, determine a response, as well as choose/implement the response that best balances addressing the cyber threat while minimizing mission impact. Continue partnership with Massachusetts Institute of Technology Lincoln Labs in developing cyber secure enclave.			
FY 2016 Plans: Continue development of a prototype custom attribute solution with extensive documentation for open standards based identity providers. Continue effort to identify and tailor best business practices, process improvement, knowledge management, and technology transition to operationalize cyber security. Continue partnership with Massachusetts Institute of Technology Lincoln Labs in developing cyber secure enclave. Complete development and delivery of a set of services that will enable USTRANSCOM to recognize disruptive events or potential disruptive events, understand their impact, determine a response as well as choose and implement the response that best balances addressing the cyber threat while minimizing mission impact.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603713S / *Deployment and Distribution Enterprise Technology*	**Project (Number/Name)** 9 / *Cyber*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.			
Accomplishments/Planned Programs Subtotals	2.090	5.436	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Project performance metrics are specific to each effort and include measures identified in the metric project plans. Project completions/success are monitored against schedules and deliverables stated in the statements of work. >80% transition rate of proven technologies to increase force projection and sustainment velocity. Ability to enhance the effectiveness and efficiency of DoD logistics/supply chain operations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603713S / *Deployment and Distribution Enterprise Technology*	Project (Number/Name) 10 / *Global Access*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
10: *Global Access*	15.903	5.042	7.560	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

A. Mission Description and Budget Item Justification

DoD requires procedures/technologies targeted at optimizing throughput at the nodes as well as across the conduits of the deployment and distribution supply chains, from origin to point of use as well as return. Needed capabilities include inventory/cargo management, materiel handling innovations, improved physical node access, port throughput enhancements, innovative delivery methods (e.g., precision airlift, autonomous re-supply), and cargo/container security. This project addresses required mission support to combatant commanders and other customers of DoD's distribution and transportation systems in the area of deployment/distribution velocity management, manned/unmanned systems to the point of effect, and increased global reach in austere/anti-access environments.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Global Access	5.042	7.560	0.000
FY 2015 Accomplishments: Begin effort to deliver an appliqué system that can be added onto currently fielded Rough Terrain Cargo Handlers to allow a single operator to perform the standard container movement operations quicker, safer, and without need of a safety spotter. Develop and deliver an operational prototype real-time monitoring and display system of local wave/current/wind conditions. Assess airship/hybrid airship viability through studies and limited technical or operational demonstrations. Continue effort to remotely access and retrieve containers and vehicles at sea. Complete effort to provide a 500-2,000 pound High Altitude Low Opening (HALO) Container Delivery System (CDS) as well as a series of technologies that improve the accuracy of precision airdrop, and which can be adapted as appropriate to any of the various systems that DoD agencies are using.			
FY 2016 Plans: Begin building a prototype modular petroleum pumping system that will provide a development path for Navy/USMC ship-to-shore technology. Begin development and integration of Large Aircraft Infrared Countermeasures (LAIRCM) Enhanced Situational Awareness capability. Start development of a capability to rapidly assess degraded/damaged ports in strategic locations. Begin effort to develop precision, on-demand air drop resupply of small units in remote/austere locations based on request from unit in need. Commence effort to provide visual/guidance technologies to use when global positioning systems are not available. Continue to assess airship/hybrid airship viability through studies and limited technical or operational demonstrations. Complete development of an operational prototype real-time monitoring and display system of local wave/current/wind conditions. Complete			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603713S / *Deployment and Distribution Enterprise Technology*	**Project (Number/Name)** 10 / *Global Access*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
effort to deliver an appliqué system that can be added onto currently fielded Rough Terrain Cargo Handlers. Complete effort to remotely access and retrieve containers and vehicles at sea. ***FY 2017 Plans:*** NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.			
Accomplishments/Planned Programs Subtotals	5.042	7.560	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Project performance metrics are specific to each effort and include measures identified in the metric project plans. Project completions/success are monitored against schedules and deliverables stated in the proposals and statements of work. >80% transition rate of proven technologies to increase force projection and sustainment velocity. Ability to enhance the effectiveness and efficiency of DoD logistics/supply chain operations.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	224.235	81.199	89.038	97.826	-	97.826	98.647	99.499	100.933	102.310	Continuing	Continuing
1: *Technology Development*	124.040	54.969	50.152	44.912	-	44.912	46.131	46.755	47.624	48.510	Continuing	Continuing
2: *Trusted Foundry*	100.195	26.230	38.886	52.914	-	52.914	52.516	52.744	53.309	53.800	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department has found it critical to National Security to maintain an ability to produce legacy microelectronics long after they are available from commercial foundries which move to more advanced technology levels based upon the global market. The Defense Microelectronics Activity (DMEA) uniquely accomplishes this mission for the Department by providing both a trusted and assured supply of microelectronics parts that are no longer available from, or bid by, commercial sources but are essential to combat operations. This is a critical capability in an atmosphere of diminishing domestic semiconductor manufacturing capability and increasing worldwide supply chain risks with threats to defense microelectronics. The threats include risks that include counterfeiting, Trojan horses, specific reliability issues in military environments and rapid obsolescence coming from an unpredictable and unsecured supply chain. As fiscal pressures force the Department to maintain its weapon systems longer than originally planned and their extended combat use increases attrition, the need for DMEA's unique capabilities increases.

Microelectronics is a crucial technology and central for all operations within the Department. Yet, as vital as this technology is to Department operations, the defense market represents less than 0.1% share of the total global semiconductor market. The Department frequently requires legacy microelectronics long after commercial foundries have moved on to advanced technology levels. As such, the semiconductor industry does not respond to the Department's particular needs of ultra-low volumes, long availability time frames, or its high-level security concerns. To meet these requirements, DMEA procures commercial licenses to organically produce semiconductor technologies that are no longer commercially manufactured or are unavailable due to no-bids owing to low volume requirements. These licenses enable DMEA to be the Department's microelectronics supplier of last resort, providing the Department with a long-term, trusted, and assured source.

DMEA provides increasingly rare microelectronics design and fabrication expertise to ensure that the Department can field systems capable of ensuring technological superiority over potential adversaries. DMEA provides decisive, quick turn solutions for defense, intelligence, special operations, cyber and combat missions as well as microelectronic components that are unobtainable in the commercial market. 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 implement novel microelectronic solutions to enhance mission capability. DMEA then uses these cutting-edge technology capabilities and products in the solutions it develops for its military clientele. After many years of performing analogous efforts, the technical experience, mission knowledge, and practical judgment that are gained from preceding efforts are incorporated into subsequent technology maturation projects. DMEA's capabilities make it a key tool in the intelligent and rapid development and application of advanced technologies to identified military needs.

Working alongside industry, DMEA has created a model partnership that provides this capability for the Department. DMEA's uniquely flexible foundry supports the Department with a wide variety of integrated circuits using various processes that were developed by commercial manufacturers and which are now assured to remain in one location for as long as they are needed. To obtain these processes, DMEA works closely with U.S. semiconductor industry partners to acquire process licenses.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603720S *I Microelectronics Technology Development and Support (DMEA)*

These Government-held licenses allow for the transfer to DMEA of industry-developed intellectual property (IP) and the related processes for Department needs. These licenses ensure no commercial conflicts by including industry's right to bid first on resulting production volumes. DMEA always looks to industry first to see if it can provide the required components. If industry cannot or will not, only then does DMEA provide the necessary prototypes and low volume production order. A critical element required to make this business model work effectively is protection of the industry partners' valuable IP and processes. DMEA is Government owned and operated, providing the structure and confidence necessary in an industry partner to ensure them that their 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. This includes the F-18 Super Hornet, F-22 Raptor, F-35, RQ-4 Global Hawk, MQ-9 Reaper, AEGIS Advanced Surface Missile System, Advanced Medium-Range Air-to-Air Missile (AMRAAM), Evolved Sea Sparrow Missile (ESSM), among many other programs. DMEA assists the Combatant Commands (COCOMs) including Special Ops, Cyber, Intelligence, and the Radiation-Hard communities.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	83.200	79.037	97.826	-	97.826
Current President's Budget	81.199	89.038	97.826	-	97.826
Total Adjustments	-2.001	10.001	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	0.001			
• SBIR/STTR Transfer	-2.001	-			

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: 2: *Trusted Foundry*		
Congressional Add: *Trusted Source Implementation of Field Programmable Gate Arrays Study*	-	10.000
Congressional Add Subtotals for Project: 2	-	10.000
Congressional Add Totals for all Projects	-	10.000

Change Summary Explanation

FY16 increase of $10M for program increase.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 1 / *Technology Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Technology Development*	124.040	54.969	50.152	44.912	-	44.912	46.131	46.755	47.624	48.510	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Technology Development funds provide DMEA with the core resources to execute its primary mission of providing an in-house ability to quickly develop and execute appropriate solutions to keep a weapon system operational, elevate its sophistication level or to meet new threats. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. These funds provide for the development and support necessary to ensure rapid prototyping, insertion, and support of microelectronics technologies into fielded systems, particularly as the technologies advance. DMEA maintains critical microelectronics design and fabrication skills to ensure that the Department is provided with systems capable of ensuring technological superiority over potential adversaries. DMEA provides an in-house capability to support these strategically important microelectronics technologies within the Department with distinctive resources to meet the Department's requirements across the entire spectrum of technology development, acquisition, and long-term support. This includes producing components to meet the Department's requirements for ultra-low volume, an extended availability timeframe, and a trusted, assured, and secure supply of microelectronics. These funds provide basic infrastructure upgrades as well as an in-house technical staff of skilled and experienced microelectronics personnel working in state-of-the-practice facilities providing technical and application engineering support for the implementation of advanced microelectronics research technologies from inspection and analysis through design, fabrication, test, assembly, integration and installation. These funds also provide for the recapitalization and modernization of aging microelectronic infrastructure, acquisition and implementation of design and test tools, the development of advanced techniques to inspect and analyze circuits, the adaptation of tools and processes to detect increasingly sophisticated counterfeit microelectronics in the defense supply chain, and the incorporation of the process technologies that are necessary to keep pace with the needs of the Department as weapon system support requirements migrate toward current state-of-the-art technologies. DMEA's capabilities make it a key resource in the intelligent and rapid application of advanced technologies to add needed performance enhancements in response to the newest asymmetric threats and to modernize aging weapon systems. DMEA designs, develops, and supports vital classified assets for ongoing and time-sensitive specialized intelligence operations and missions of the Department and the Special Operations Commands.

Today's weapon systems experience extended field operations and are required to remain in service beyond planned replacement schedules, driving the need for growth in DMEA's unique capabilities. This need, along with the continual contraction of commercial resources, makes DMEA the only available resource allowing many systems to remain operational. As such, DMEA and its capability are considered a National Critical Asset.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Technology Development Accomplishments/Plans	54.969	50.152	44.912
FY 2015 Accomplishments: DMEA designed, developed, and demonstrated microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA applied advanced technologies to add performance enhancements in response to the newest			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 1 / *Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
asymmetric threats and to modernize aging weapon systems. In keeping with the rapid pace of microelectronics technology, DMEA continued the process of extending its fabrication capability to smaller node sizes. ***FY 2016 Plans:*** DMEA will continue to 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 aging weapon systems. The increased missions seen in the last several years by Combatant Commands (COCOMs) and Special Operations have caused those organizations to dramatically increase their demands for DMEA's unique capability to provide quick technical solutions to immediate operational needs. To meet these increases, DMEA will continue to add capacity and capability by recapitalizing and modernizing aging microelectronic infrastructure, extending and upgrading process IP, developing advanced techniques to inspect and analyze circuits, and adapting tools and processes to detect increasingly sophisticated counterfeit microelectronics to ensure a secure supply chain, all to meet quick turn solutions on which COCOMs and Special Operations can rely. ***FY 2017 Plans:*** DMEA will continue to 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 aging weapon systems. The increased missions seen in the last several years by Combatant Commands (COCOMs) and Special Operations have caused those organizations to dramatically increase their demands for DMEA's unique capability to provide quick technical solutions to immediate operational needs. To meet these increases, DMEA will continue to add capacity and capability by recapitalizing and modernizing aging microelectronic infrastructure, extending and upgrading process IP, developing advanced techniques to inspect and analyze circuits, and adapting tools and processes to detect increasingly sophisticated counterfeit microelectronics to ensure a secure supply chain, all to meet quick turn solutions on which COCOMs and Special Operations can rely.			
Accomplishments/Planned Programs Subtotals	54.969	50.152	44.912

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 1 / *Technology Development*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	Project (Number/Name) 2 / *Trusted Foundry*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Trusted Foundry*	100.195	26.230	38.886	52.914	-	52.914	52.516	52.744	53.309	53.800	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department and the National Security Agency (NSA) require uninterruptible 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 tampered or sabotaged parts. Worldwide competition from foreign, state-subsidized manufacturing facilities continues to greatly reduce the number of U.S. semiconductor fabrication facilities that might 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 as illustrated by the recent acquisition of IBM's semiconductor manufacturing capability by GlobalFoundries. This acquisition, caused by economic pressures, has again highlighted the fact that 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. This trend is of acute concern to the defense and intelligence communities. Secure communications and cryptographic applications, among other areas of defense interest, depend heavily upon high performance semiconductors where a generation of improvement can translate into a significant force multiplier and capability advantage. 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 Microelectronics program provides the Department with access to the Trusted state-of-the-art microelectronics design and manufacturing capabilities necessary to meet their confidentiality, integrity, availability, performance and delivery needs. The program also provides the Services 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 focus on fostering all viable alternatives to continue the vital supply of Trusted and assured microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. It is imperative for a wide range of technologies in ongoing and future Department systems that access to Trusted suppliers continues. Most importantly, Trusted Microelectronics access is absolutely necessary to meet secure communication and cryptographic needs requiring state-of-the-art semiconductor technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Trusted Foundry	26.230	28.886	52.914
FY 2015 Accomplishments: Worked issues concerning the sale and transfer of IBM's microelectronics fabrication facilities to GlobalFoundries – a foreign-owned entity – to ensure a continued supply of Trusted state-of-the-art microelectronics technologies for the needs of the Department and NSA. The contract to provide Trusted access to state-of-the-art microelectronics technologies was novated from			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 2 / *Trusted Foundry*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
IBM to GFUS2, a newly formed US subsidiary of GlobalFoundries. Participated in, and oversaw, analyses to determine a revised long-term strategy for access to assured Trusted state-of-the-art microelectronics technologies based on the changing commercial landscape. As NSA has planned to reduce its role in Trusted activities to that of a user, DMEA started early transition planning activities to be able to assume responsibilities and administration of the Trusted Access Program Office by FY 2017. Enhanced the cadre of trusted suppliers for the critical trusted components and services needed for appropriate defense systems. Enhanced Trusted Microelectronics products to include newly available leading edge technologies and other key specialty processes required by Department programs. Enhanced trusted design activities to encompass new processing capabilities. Expanded a line of trusted catalog components, including Field Programmable Gate Arrays (FPGAs), which could be purchased by Defense contractors. Worked to ensure the Department has Trusted Access to leading edge semiconductor technologies.			
FY 2016 Plans: Continue the development of a capability for the inspection and analysis of application-specific integrated circuits (ASICs) and continuously refine the utilized methods for efficiency, accuracy, and applicability to multiple processes. Enhance the cadre of trusted suppliers for the critical trusted components and services needed for appropriate defense systems. Enhance Trusted Microelectronics products to include newly available leading edge technologies and other key specialty processes required by Department programs. Expand a line of trusted catalog components that can be purchased by Defense contractors. Continue activities that ensure the Department has Trusted Access to leading edge semiconductor technologies. Begin transition to assume responsibilities and administration of the Trusted Access Program Office that is currently operated by NSA.			
FY 2017 Plans: Continue the development of a capability for the inspection and analysis of application-specific integrated circuits (ASICs) and continuously refine the utilized methods for efficiency, accuracy, and applicability to multiple processes. Enhance the cadre of trusted suppliers for the critical trusted components and services needed for appropriate defense systems. Enhance Trusted Microelectronics products to include newly available leading edge technologies and other key specialty processes required by Department programs. Expand a line of trusted catalog components that can be purchased by Defense contractors. Continue activities that ensure the Department has Trusted Access to leading edge semiconductor technologies. Fully assume responsibilities and administration of the Trusted Access Program Office that was previously operated by NSA, including contractual support for state-of-the-art integrated circuit supply.			
Accomplishments/Planned Programs Subtotals	26.230	28.886	52.914

	FY 2015	FY 2016
Congressional Add: Trusted Source Implementation of Field Programmable Gate Arrays Study	-	10.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603720S / *Microelectronics Technology Development and Support (DMEA)*	**Project (Number/Name)** 2 / *Trusted Foundry*

	FY 2015	FY 2016
FY 2016 Plans: DMEA will implement promising aspects from the Trusted Field Programmable Gate Arrays (FPGAs) Study to further efforts to produce an FPGA in an acceptable Trusted manufacturing flow.		
Congressional Adds Subtotals	-	10.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605070S *I DoD Enterprise Systems Development and Demonstration*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	91.871	13.893	11.912	12.631	-	12.631	12.639	8.042	8.102	8.238	Continuing	Continuing
1: *Business Enterprise Information Services (BEIS)*	13.027	0.333	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
4: *Defense Information System for Security (DISS)*	52.258	9.762	9.529	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
5: *Defense Travel System (DTS)*	1.216	0.000	0.207	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
8: *Defense Retired and Annuitant Pay System (DRAS)*	15.010	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
9: *Enterprise Funds Distribution (EFD)*	10.360	3.798	2.176	3.800	-	3.800	3.786	0.000	0.000	0.000	Continuing	Continuing
11: *Next Generation Resource Management System (NGRMS)*	-	0.000	0.000	8.831	-	8.831	8.853	8.042	8.102	8.238	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). The DLA recognizes that DoD's business enterprise must be closer to its warfighting customers than ever before. Joint military requirements drive the need for greater commonality and integration of business and financial operations.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	15.326	13.412	4.493	-	4.493
Current President's Budget	13.893	11.912	12.631	-	12.631
Total Adjustments	-1.433	-1.500	8.138	-	8.138
• Congressional General Reductions	-0.944	-1.500			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.489	-			
• NGRMS transition to DLA	0.000	0.000	8.910	-	8.910
• Program increase for EFD	0.000	0.000	3.840	-	3.840

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency				Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*		**R-1 Program Element (Number/Name)** PE 0605070S *I DoD Enterprise Systems Development and Demonstration*			
• Program transfer out of DLA	0.000	0.000	-4.500	-	-4.500
• Inflation for Non-Pay/Non-Fuel Purchases	-	-	-0.112	-	-0.112

Change Summary Explanation

FY16 reduction of $1.5M as a result of forward financing and late contract awards.

FY17 increase of $8.910M is the transition of NGRMS from OSD(C) to DLA, increase of $3.840M to EFD for program increase, and program transfer out of DLA resulting in decrease of $4.5M.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 1 / *Business Enterprise Information Services (BEIS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Business Enterprise Information Services (BEIS)*	13.027	0.333	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 BEIS utilized the mature, existing infrastructure of Defense Corporate Database/Defense Corporate Warehouse (DCD/DCW), Defense Departmental Reporting System (DDRS), and Defense Cash Accountability System (DCAS) to provide timely, accurate, and reliable business information from across the DoD to support auditable financial statements as well as provide detailed information visibility for management in support of the Warfighter. The goals of BEIS are to ensure data compliance with Standard Financial Information Structure (SFIS) standards; provide security-defined, enterprise-level access to information for ad hoc management queries; and produce external financial management reports/statements based on standardized data. BEIS provides solutions to these goals by:
- Establishing the authoritative source for SFIS values and providing for standardization by implementing SFIS and United States Standard General Ledger (USSGL) compliant financial reporting capabilities for Audited Financial Statements and Budgetary Reports.
- Providing an enterprise-wide information environment that will serve as the single source for enterprise-wide financial information.
- Serving as the DoD-wide system for Treasury Reporting.
- Providing decision makers with significantly greater access to financial information through data visibility and business intelligence (e.g., Executive Dashboard).

The BEIS functional baseline encompasses a family of services organized into six distinct lines of business, four of which have achieved Full Operational Capability (FOC). The remaining two services, Financial Reporting Services and Cash Accountability Reporting Services, will provide DoD enterprise-wide financial visibility and will serve as the centralized financial data source and the single source for enterprise Audited Financial Statements and Budgetary Reports, as well as Treasury Reporting. The BEIS financial management capabilities will be used by the Military Services, Defense Agencies, and the Under Secretary of Defense (Comptroller). These modernization efforts will complete deployment/implementation of BEIS capabilities and will serve the Department Auditability goals and objectives.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Business Enterprise Information Services (BEIS)	0.333	-	-
FY 2015 Accomplishments: BEIS DCAS Cash Accountability Reporting Services: - Implementation of significant system enhancements/modifications required to meet evolving regulatory and/or statutory changes in support of DoD/Treasury fiduciary reporting and/or the DoD Audit Readiness effort.			
Accomplishments/Planned Programs Subtotals	0.333	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 1 / *Business Enterprise Information Services (BEIS)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

BEIS leveraged existing infrastructure in DoD's investment in DCD/DCW, DDRS, and DCAS. BEIS formally implemented a portfolio management approach to program management that helped to ensure a management strategy was in place to better reallocate assets within the portfolio. BEIS has and will continue to deliver needed capabilities more rapidly and efficiently using a Family of Systems (FoS) concept providing a functional baseline organized into six distinct lines of business: General Ledger Services, Business Integration Services, Reference Data Services, Enterprise Level Business Intelligence Services, Cash Accountability and Reporting Services, and Financial Reporting Services. These services are provided by individual IT systems that collectively, make up the BEIS FoS. The BEIS FoS program is composed of four core systems; Defense Departmental Reporting System (DDRS), Defense Cash Accountability System (DCAS) Enterprise Business Intelligence (EBI), and Defense Corporate Database/Defense Corporate Warehouse (DCD/DCW). Capabilities are being developed incrementally with multiple releases per year to meet the Enterprise Transition Plan milestones provided to Congress. BEIS has achieved FOC for the following system components/services: DCD/DCW, to include General Ledger Services, Business Integration Services, Reference Data Services, and Enterprise Business Intelligence (EBI) and transitioned these to DFAS for operations and sustainment. Based on the list of remaining requirements for BEIS DDRS Financial Reporting Services and BEIS DCAS Cash Accountability and Reporting Services an overall schedule including integrated activities as well as identified products and milestones has been developed. Contracts are competitively awarded to keep costs down. Intra-governmental services are being used where possible for infrastructure support by the Defense Finance and Accounting Service (DFAS) Technical Services Organization and Defense Information Systems Agency (DISA) Information Processing Center.

E. Performance Metrics

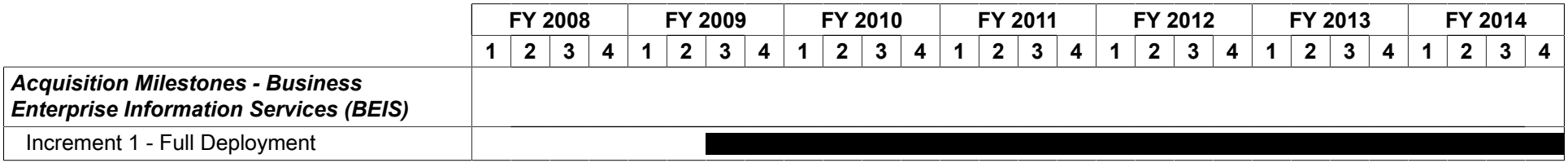
N / A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 1 / *Business Enterprise Information Services (BEIS)*

Remarks

Product Development ($ in Millions) FY 2014 FY 2015 FY 2016 Cost Category Item Contract Method & Type Performing Activity & Location All Prior Years Cost Award Date Cost Award Date Cost Award Date Cost To Complete Total Cost Target Value of Contract BEIS Product Development - Functional Analysis and Design C/FFP Savantage: Rockville, MD 10.407 2.007 Oct 2013 - - Continuing Continuing Continuing BEIS Product Development - Functional Analysis and Design C/T&M BearingPoint: McLean, VA 0.487 - - - Continuing Continuing Continuing BEIS Product Development - Functional Analysis and Design C/T&M Executive Service Corps of Cincinnati (ESCC):Cincinnati, OH 5.137 - - - Continuing Continuing Continuing BEIS Product Development - Functional Analysis and Design C/T&M NAVAIR LMSS (Deloitte):Rosslyn, VA 4.385 - - - Continuing Continuing Continuing BEIS Product Development - Functional Analysis and Design C/FFP Deloitte: Rosslyn, VA 0.581 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/T&M Worldwide Technology, Inc (WWT):Various 1.742 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/T&M BearingPoint: Various 0.831 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development MIPR DFAS (TSO-CL) / DFAS (I&T-CL):Indianapolis, IN 7.647 0.524 Feb 2014 0.496 Mar 2015 Continuing Continuing Continuing BEIS Product Development - Technical Design & Development MIPR DFAS (TSO-PE):Indianapolis, IN 1.160 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/T&M CyberData: Various 2.647 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/T&M CACI: Chantilly, VA 0.716 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/T&M TSO-CS: Various 0.080 - - - Continuing Continuing Continuing BEIS Product Development -Technical Design & Development C/T&M NAVAIR LMSS (Deloitte):Arlington, VA 2.458 - - - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/FFP CSCI: Indianapolis, IN 3.322 0.829 Mar 2014 0.447 - Continuing Continuing Continuing BEIS Product Development - Technical Design & Development C/FFP Deloitte: Alexandria, VA 0.161 - - - Continuing Continuing Continuing Subtotal 42.386 3.360 0.942 0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 1 / *Business Enterprise Information Services (BEIS)*



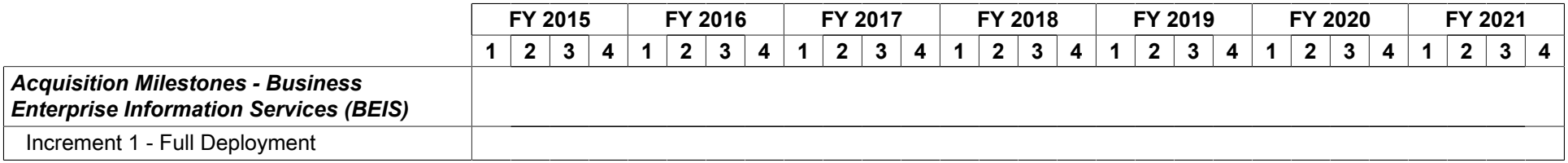


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 1 / *Business Enterprise Information Services (BEIS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestones - Business Enterprise Information Services (BEIS)				
Increment 1 - Full Deployment	3	2009	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 4 / *Defense Information System for Security (DISS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4: *Defense Information System for Security (DISS)*	52.258	9.762	9.529	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 Defense Information System for Security (DISS) is a family of systems solution that specifically addresses the security clearance and suitability determinations requirements of Section 3001 of Public Law 108-458, the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA) which requires 90% of all clearances – whether Top Secret, Secret, or Confidential – to be completed within 60 days, as well as supports Homeland Security Presidential Directive 12 (HSPD-12) compliance across the DOD. The DISS will electronically collect, review, and share relevant data, government-wide, as mandated by the IRPTA and, guided by relevant Executive Orders, Congress, and GAO recommendations, deliver and maintain an appropriately vetted world-class workforce.

As a secure, end-to-end IT system, the DISS will be the authoritative source for the management, storage, and timely dissemination of and access to personnel security, HSPD-12, and suitability information and will accelerate the clearance process, reduce security clearance vulnerabilities, decrease back-end processing timelines, and support simultaneous information sharing within various DOD entities as well as among a number of authorized federal agencies.

The DISS family of systems is comprised of two components: the Case Adjudication Tracking System (CATS) and the Joint Verification System (JVS). Once fully deployed, the DISS family of systems will replace the Joint Personnel Adjudication System, which contains approximately six million active security clearance records and supports over 80,000 users. The DISS has also been designated as the repository for adjudicative results for Suitability and HSPD-12 determinations by the 13 July 2011 USD(I) memo "Storage of Adjudicative Results in the Defense Information System for Security."

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Information System for Security (DISS)	9.762	9.529	-
Description: The DISS CATS has been designated as the DoD non-Intelligence Community IT system for case management and adjudications by the 10 April 2009 USD(I) memo "Designation of the DoD Case Management and Adjudication Systems." Currently, CATS processes over 500,000 cases annually; electronically producing favorable adjudicative decisions for approximately 24% of Secret level cases. Further, the 3 May 2012 Deputy Secretary of Defense Memo "DoD Central Adjudication Facilities (CAF) Consolidation" consolidated all DoD CAF into one consolidated DoD CAF responsible for personnel security adjudicative functions as well as favorable Suitability and HSPD-12 adjudications. The DISS (CATS) is the DOD CAF's designated IT case management system.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Achieving the above goals will significantly enhance the operational readiness of the national security community and the Federal government. It will decrease the time required to get an individual through the investigation process. It will strengthen and reinforce reciprocity throughout the federal community by eliminating redundant or incomplete investigations by standardizing adjudicative decisions and by making available to all agencies adjudicative determinations of the Federal government. ***FY 2015 Accomplishments:*** • Accepted consolidated DoD Central Adjudication Facility Case Adjudication Tracking System v4.2 - RSM. • Accepted initial capability for Homeland Security Presidential Directive (HSPD-12) and Suitability determinations in CATS V4. • Accepted consolidated DoD Central Adjudication Facility Case Adjudication Tracking System v4.3 - Common Portal Enhancements. • Completed CATS physical transfer. • Completed development of the CATS Service Desk application. • Continued development and testing of the JVS prototype. • Transitioned JVS MS B to begin the Engineering Development phase in which the program will refine system requirements, configure the software, build functionality, conduct developmental testing, and plan for operational testing. • Developed JVS Self-Service user module and JVS Service Desk application. • Completed interface development for ESB. • Initiated JVS integration with DMDC Enterprise Services. ***FY 2016 Plans:*** • Complete development of the CATS Service Desk application. • Complete development and testing of the JVS prototype. • Complete interface development for ESB. • Complete DMDC Data Migration for DISS. • Complete development and testing of the JVS (DISS 2.0). • Complete integration of DISS with DMDC Enterprise Services. • Complete development of JVS Self-Service user module and JVS Service Desk application. • Transition JVS Full Deployment Decision to begin the JVS Operations and Sustainment phase. • Define system capabilities for emerging Office of the Under Secretary of Defense, Intelligence requirements.			
Accomplishments/Planned Programs Subtotals	9.762	9.529	-

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

The Defense Information System for Security (DISS) is being fielded as a Family of Systems (FoS) employing an evolutionary acquisition approach by fielding incremental capabilities. On May 09, 2013, the DISS CATS received a Full Deployment (FD) Acquisition Decision Memorandum (ADM) which acknowledged that CATS was operationally fielded at the five adjudication facilities and authorized the DISS PMO to enhance and field a consolidated CATS (CATS v4) and its associated portal in order to improve the lifecycle management of the CATS by consolidating the existing CATS applications into a consolidated CATS application that uses a single database. The July 11, 2014 “DISS Acquisition Strategy Revision Acquisition Decision Memorandum” revised the DISS acquisition strategy to field the remaining JVS capability not contained in the CATS. The JVS Milestone B Acquisition Decision Memorandum (ADM) was signed in FY15 Q2 and this initiated the Engineering Development phase in which the program will refine system requirements, configure the software, build functionality, conduct developmental testing, and plan for operational testing. These activities will continue until a Full Deployment Decision (FDD) is made in Q2 FY16.

The DISS PMO is responsible for program execution and will employ contract types as directed by the agency contracts policies in order to support the delivery and sustainment of the DISS Capabilities. DISS development contractors employ an agile development methodology to allow for a flexible approach that incorporates user requirements and feedback throughout the development lifecycle while meeting delivery requirements as prescribed by the associated development contract. The Agile development methodology allows for the fielding of incremental capabilities IAW the program’s acquisition approach.

E. Performance Metrics

N / A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Product Development	C/FFP	iWorks Corporation : Reston, VA	-	2.011	Mar 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	C/FFP	iWorks Corporation. : Reston, VA	1.023	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	C/FFP	iWorks Corporation, : Reston, VA	11.799	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Manpower Data Center (DMDC) GSA-Philadelphia : Philadelphia, PA	7.054	3.450	Mar 2015	2.500	Mar 2016	-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Manpower Data Center (DMDC) GSA-Philadelphia. : Philadelphia, PA	0.274	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Intelligence Agency : N/A	0.999	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Personnel Security Research Center : Monterey, CA	0.994	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	California Analysis Center, Inc (CACI) : Chantilly, VA	6.026	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Northrop Grumman Inc : McLean, VA	0.127	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	C/FFP	TBD 5 : TBD 5	0.368	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	C/FFP	TBD : TBD	-	-		0.834	Jan 2016	-		-		-	Continuing	Continuing	Continuing
DISS Product Development	SS/IDIQ	iWorks Corporation . : Reston, VA	-	0.130	Sep 2015	1.000	Sep 2016	-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Product Development	TBD	TBD 6 : TBD 6	-	0.049		-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	TBD	TBD. : TBD.	-	-		0.329	Mar 2016	-		-		-	Continuing	Continuing	Continuing
		Subtotal	28.664	5.640		4.663		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Support	C/FFP	iWorks Corporation : Reston, VA	0.310	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	IMMIX Technology Inc. : McLean, VA	0.063	0.050	Jan 2015	0.027	Jan 2016	-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Carahsoft Technology : Reston, VA	0.229	0.060	Dec 2014	0.072	Dec 2015	-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Sterling Computer Corp : Dakota Dunes, SD	0.188	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Carahsoft Technology- : Reston, VA	-	0.142	Aug 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	TBD 2 : TBD 2	-	0.006	Feb 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Support	MIPR	Defense Manpower Data Center (DMDC) GSA- San Francisco : San Francisco, CA	0.364	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	MIPR	Technology Applications Office : Ft. Detrick, MD	0.376	-		-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Support	C/FFP	Advanced Concepts, Inc. : Colombia, MD	0.235	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	MIPR	Washington Headquarters Service : Washington, DC	0.300	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Federated IT : Washington, DC	2.499	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Future Net Group : Detroit, MI	0.688	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	InfoReliance Corp : Fairfax, VA	0.331	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Katex Solutions : Mission Viejo, CA	0.303	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Mythics Inc : Virginia Beach, VA	1.475	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Carahsoft Technology. : Reston, VA	-	0.020	Dec 2014	0.020	Dec 2015	-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	Agust Schell Enterprises : Rockville, MD	-	0.136	Jun 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Support	C/BPA	TBD : TBD	-	0.812	Oct 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Support	TBD	TBD 3 : TBD 3	-	-		0.500	Jan 2016	-		-		-	Continuing	Continuing	Continuing
DISS Support	TBD	TBD 1 : TBD1	-	-		1.714	Apr 2016	-		-		-	Continuing	Continuing	Continuing
		Subtotal	7.361	1.226		2.333		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Test and Evaluation	MIPR	Joint Interoperability Test Command (JITC) : Indian Head, MD	0.070	0.248	Apr 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Test and Evaluation	MIPR	Defense Manpower Data Center (DMDC), Seaside : Seaside, CA	6.197	0.719	May 2015	-		-		-		-	Continuing	Continuing	Continuing
DISS Test and Evaluation	MIPR	SPAWARSYSCEN : Charleston, SC	0.020	-		-		-		-		-	Continuing	Continuing	Continuing
SBIR Tax	TBD	TBD : TBD	-	0.329	Oct 2014	-		-		-		-	Continuing	Continuing	Continuing
SAC-D Reduction	TBD	TBD 1 : TBD 2	-	-		0.933	Oct 2015	-		-		-	Continuing	Continuing	Continuing
		Subtotal	6.287	1.296		0.933		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DISS Management Services	Option/ FFP	Celerity Government Solutions/Xcelerate : McLean, VA	-	1.600	Dec 2014	-		-		-		-	Continuing	Continuing	Continuing
DISS Management Services	Various	Government Program Management Office : Alexandria, VA	1.446	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Management Services	Option/ FFP	International Business Machines : Bethesda, MD	4.520	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Management Services	C/FFP	Amyx, Inc : Reston, VA	3.980	-		-		-		-		-	Continuing	Continuing	Continuing
DISS Management Services	C/BPA	TBD : TBD	-	-		1.600	Dec 2015	-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	9.946	1.600		1.600		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	52.258	9.762		9.529		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

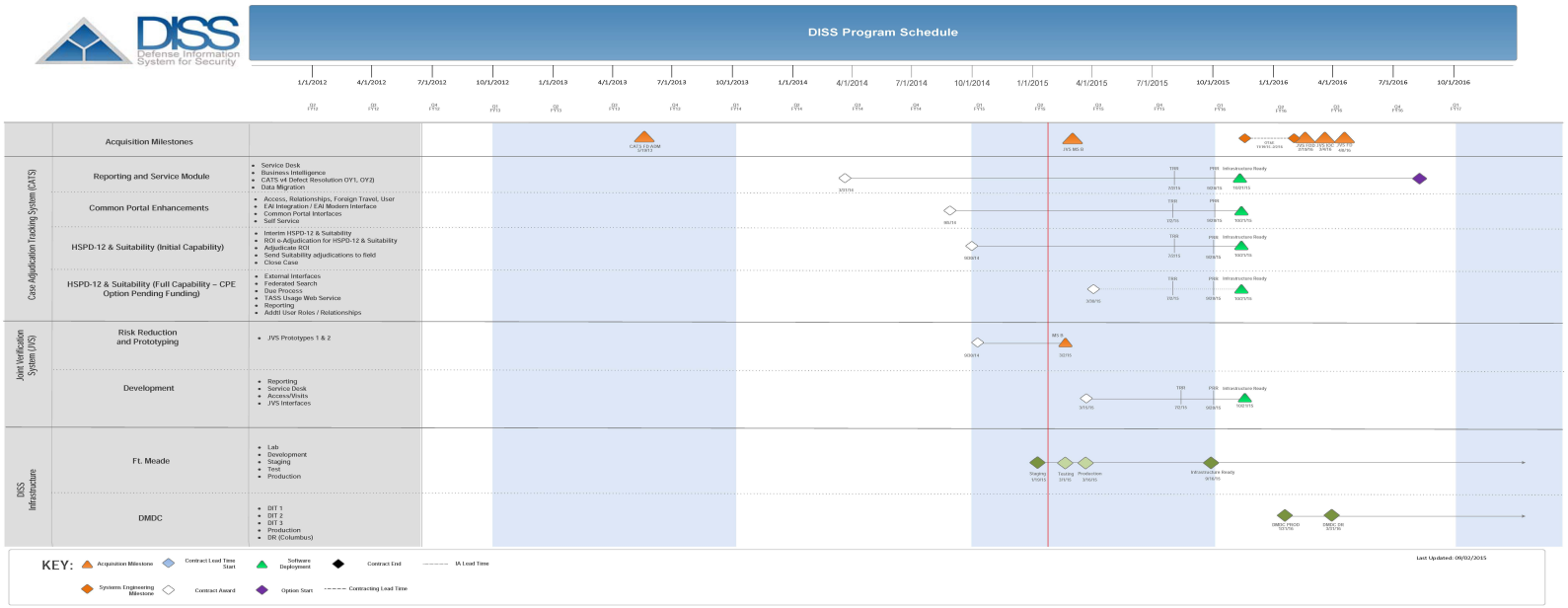


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 4 / *Defense Information System for Security (DISS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Defense Information System for Security (DISS)	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 5 / *Defense Travel System (DTS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
5: *Defense Travel System (DTS)*	1.216	0.000	0.207	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 Defense Travel System (DTS) is a fully integrated, electronic, end-to-end financial management system that automates temporary duty travel for the Department of Defense (DoD). DTS meets unique DoD mission, security and financial system requirements within the guidelines of Federal and DoD travel policies and regulations. DTS automates travel authorizations, reservations and arrangements, voucher processing, payment, reconciliation, accountability and archiving. DTS employs Digital Signature and Login/Authentication which requires users to provide a signed response using a valid DoD Public Key Infrastructure (PKI) certificate to gain access to the DTS application. Travel documents created in DTS are digitally signed with the user's PKI certificate to provide a means of identifying the signer, verifying the document's integrity, and enforcing non-repudiation of the signature by the signer.

DTS is a Major Automated Information System (MAIS), Acquisition Category (ACAT) 1AC program. DTS delivers capability by evolutionary acquisition utilizing incremental development; recognizing up front the need for future capability improvements. DTS has a flexible design so that each increment builds upon its core functionality, dependent on available, mature technology providing increasing capabilities to travelers, travel administrators, and process owners. Full Operational Capability (FOC) was declared in March 2010. Future capability improvements will be implemented as P3I beginning FY 2011.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Travel System (DTS)	0.000	0.207	-
FY 2015 Accomplishments: -Continued "work-off" of development related Software Problem Reports (SPRs). -Simplified User Interface/Usability Enhancements -Completed User functionality enhancements based upon user community requirements -Addressed system changes if needed in support of DoD Audit Readiness objectives -Integrated the existing Services' Defense Lodging Systems (DLS) with the DTS to allow display and booking of available, on-base military lodging at all installations, via travel industry standard formatted transactions used by DLS. DTS will also incorporate the Preferred Lodging initiative which will provide the capability to search, display, and book preferred lodging -Implemented changes to Defense Enterprise Accounting and Management System (DEAMS) that will allow Air Force, Air National Guard, and Air Force Reserve personnel to travel on a DTS/DEAMS Line of Accounting (LOA) that includes the Reimbursable Funding Document Number. This process change will maximize automation and minimize manual tasks while achieving Financial Improvement and Audit Readiness (FIAR) standards			
FY 2016 Plans: -Continue "work-off" of development related Software Problem Reports (SPRs)			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 5 / *Defense Travel System (DTS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
-Simplify User Interface/Usability Enhancements -Address system changes if needed in support of DoD Audit Readiness objectives -Upgrade of Specified Accounting Systems Integrations to support Standard Line of Accounting (SLOA) data formatting			
Accomplishments/Planned Programs Subtotals	0.000	0.207	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Plan of Action described in Section B is to competitively award a single contract for DTS hosting, sustainment, and development. This is expected to achieve the following PMO objectives:

. Reduce system operation, maintenance, and development costs through increased competition;
. Continue high availability of DTS for reasonable cost;
. Improve quality of delivered software;
. Eliminate Government ownership and detailed management of system operating environment;
. Facilitate future migration to Open Source and Modular Architecture.

E. Performance Metrics

N / A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** *5 / Defense Travel System (DTS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TBD	Allot	TBD : Alexandria, VA	1.216	-		0.207		-		-		-	Continuing	Continuing	-
		Subtotal	1.216	-		0.207		-		-		-	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.216	-		0.207		-		-		-	-	-	-

Remarks

Funding needed for any new development required to keep the Defense Travel System operational and sustainable

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 5 / *Defense Travel System (DTS)*

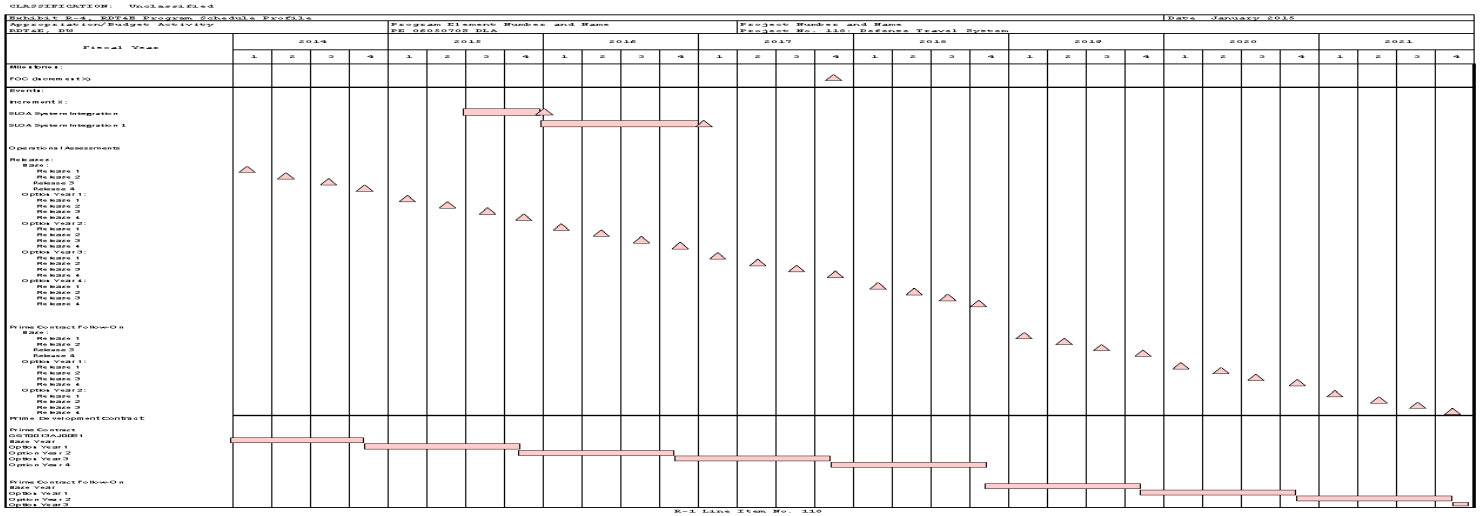


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 5 / *Defense Travel System (DTS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Increment X				
SLOA System Integration	3	2015	4	2015
SLOA System Integration 1	1	2016	4	2016
Option Year 1 Release 1	1	2015	1	2015
Option Year 1 Release 2	2	2015	2	2015
Option Year 1 Release 3	3	2015	3	2015
Option Year 1 Release 4	4	2015	4	2015
Option Year 2 Release 1	1	2016	1	2016
Option Year 2 Release 2	2	2016	2	2016
Option Year 2 Release 3	3	2016	3	2016
Option Year 2 Release 4	4	2016	4	2016
Option Year 3 Release 1	1	2017	1	2017
Option Year 3 Release 2	2	2017	2	2017
Option Year 3 Release 3	3	2017	3	2017
Option Year 3 Release 4	4	2017	4	2017
Option Year 4 Release 1	1	2018	1	2018
Option Year 4 Release 2	2	2018	2	2018
Option Year 4 Release 3	3	2018	3	2018
Option Year 4 Release 4	4	2018	4	2018
Contract Option Extension GS00Q09BGD0056/GST0013AJ0081 Option Year 1	4	2014	4	2014
Contract Option Extension GS00Q09BGD0056/GST0013AJ0081 Option Year 2	4	2015	4	2015
Contract Option Extension GS00Q09BGD0056/GST0013AJ0081 Option Year 3	4	2016	4	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** *5 / Defense Travel System (DTS)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Contract Option Extension GS00Q09BGD0056/GST0013AJ0081 Option Year 4	4	2017	4	2017
Follow-on Prime Contract	4	2018	4	2018
Follow-on Prime Contract Base Year Release 1	1	2019	1	2019
Follow-on Prime Contract Base Year Release 2	2	2019	2	2019
Follow-on Prime Contract Base Year Release 3	3	2019	3	2019
Follow-on Prime Contract Base Year Release 4	4	2019	4	2019
Follow-on Prime Contract Option 1 Year Release 1	1	2020	1	2020
Follow-on Prime Contract Option 1 Year Release 2	2	2020	2	2020
Follow-on Prime Contract Option 1 Year Release 3	3	2020	3	2020
Follow-on Prime Contract Option 1 Year Release 4	4	2020	4	2020

Exhibit R-5, RDT&E Termination Liability: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 5 / *Defense Travel System (DTS)*	

Cost ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Program Termination Liability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 8 / *Defense Retired and Annuitant Pay System (DRAS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Defense Retired and Annuitant Pay System (DRAS)*	15.010	0.000	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 primary objective of Defense Retired and Annuitant Pay System 2 (DRAS 2) is to establish and maintain a modernized retired military pay accounts. DRAS 2 will replace the current Defense Retiree and Annuitant Systems (DRAS) and selected manual processes with proven state of the market technology using Clinger-Cohen guidance for selection of the solution. Rapid fielding techniques will be used to close business process gaps by delivering incremental capability that provides clear financial benefits. This modernization will allow for the consolidation of disparate DRAS systems and processes, the reduction of system redundancies and inefficiencies, increased customer satisfaction and compliance to Department of Defense (DoD) and federally mandated Information Assurance (IA) requirements. The DRAS2 modernization is in keeping with the DoD Strategic Management Plan for FY2014-2015 goals and the White House CIO Council 2.0 initiatives. In FY2015, DRAS 2 has it's own PE 0605090S separate from the PE referenced in this submission.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Retired and Annuitant Pay System (DRAS)	0.000	-	-
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

During FY2014, a System Development Task Order Delivery contract will be established for DRAS2 in order to begin system development activities. Acquisition activities will follow the Business Capabilities Lifecycle (BCL) and system development will be in an incremental approach.

E. Performance Metrics

N / A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 8 / *Defense Retired and Annuitant Pay System (DRAS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DRAS2 System Development and Integration	C/IDIQ	To be Determined : To be Determined	15.010	0.000		-		-		-		-	-	-	-
		Subtotal	15.010	0.000		-		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.010	0.000		0.000		-		-		-	-	-	-

Remarks

The System Development and Integration Contract is scheduled to award during September 2014. The FY2014 cost is an estimate and not the actual cost.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 8 / *Defense Retired and Annuitant Pay System (DRAS)*

	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014			
	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
"N/A"																												
"N/A"																												

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
"N/A"																												
"N/A"																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 8 / *Defense Retired and Annuitant Pay System (DRAS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
"N/A"				
"N/A"	1	2014	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 9 / *Enterprise Funds Distribution (EFD)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Enterprise Funds Distribution (EFD)*	10.360	3.798	2.176	3.800	-	3.800	3.786	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 solution established as a key initiative to provide full visibility of funds distributed through echelon I and II for the Military Departments and at all levels for the Defense Agencies to improve and modernize the OUSD(C) funds distribution process. 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)	FY 2015	FY 2016	FY 2017
Title: Enterprise Funds Distribution (EFD)	3.798	2.176	3.800
Description: EFD will distribute funds to the Military Departments and the Defense Agencies.			
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 9 / *Enterprise Funds Distribution (EFD)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Completed System integration and regression testing for the new configuration of the budget structure in EFD for the lower level funds distribution process • Provided Extensive training for the users at the Defense Organizations • Implemented the first subset of Defense Organizations onto EFD • Completed Conversion of Family Housing data into EFD ***FY 2016 Plans:*** • Implement onto EFD the BRAC and non-general fund accounts (such as Special, Trust, Revolving, and Deposit funds). The efforts for implementation include requirements review, functional and technical analysis, system configuration/development, data conversion, and testing. • Provide training to the end users who are responsible for the BRAC and non-general funds accounts. • Conduct transition activities in preparation for DFAS to sustain the system. • Convert the funding data for years prior to FY16 for the Defense Organizations that were implemented onto EFD as part of the Phase 2 efforts. ***FY 2017 Plans:*** • Complete implementation of EFD Phase 2. and begin transition activities preparing for hand off to DFAS. • Complete research and employ new hosting solution for EFD IAW DFAS Systems hosting directives			
Accomplishments/Planned Programs Subtotals	3.798	2.176	3.800

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 needed to ensure EFD is fully implemented for all appropriation data for the Military Services and Defense Organizations has led to a full deployment date of September 2016.

E. Performance Metrics

• For performance, the objective is that 100% of the SFIS elements are SFIS compliant at FD.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 9 / *Enterprise Funds Distribution (EFD)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Savantage Solutions	Option/ FP	Savantage Solutions : Rockville, MD	10.360	3.798	Sep 2015	-		-		-		-	-	-	-
TeraThink Corporation	C/FFP	TeraThink Corporation : Reston, VA	-	-		1.710	Dec 2015	1.900	Dec 2016	-		1.900	-	-	-
To Be Determined	C/FFP	To Be Determined : To Be Determined	-	-		0.466	Jul 2016	1.900	Jul 2017	-		1.900	-	-	-
		Subtotal	10.360	3.798		2.176		3.800		-		3.800	-	-	-

Remarks

EFD Product Development – Technical Design and Development

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.360	3.798		2.176		3.800		-		3.800	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 9 / *Enterprise Funds Distribution (EFD)*

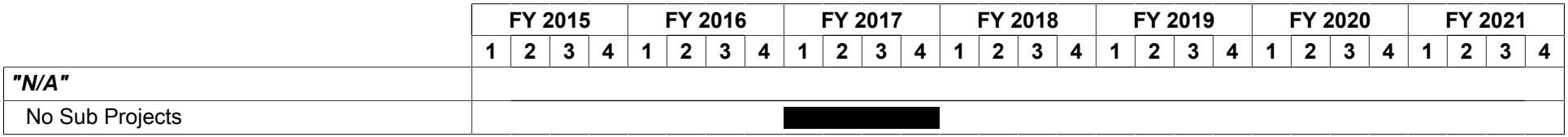


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 9 / *Enterprise Funds Distribution (EFD)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
"N/A"				
No Sub Projects	1	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	Project (Number/Name) 11 / *Next Generation Resource Management System (NGRMS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
11: *Next Generation Resource Management System (NGRMS)*	-	0.000	0.000	8.831	-	8.831	8.853	8.042	8.102	8.238	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Department's budget focuses on institutionalizing and financing our capabilities to fight the wars we are in today and the scenarios we are most likely to face in the years ahead, while at the same time mitigating risk and providing for contingency operations. It also includes a fundamental overhaul of the DoD's approach to procurement, acquisition, and contracting. As such, the complex details of budgeting and tracking of funds become increasingly critical to senior leader decision making and to provide accountability to the taxpayer. Incorporating information technology toward current and emerging business processes manifesting into a state-of-the art system of systems will result in increasing efficiencies, timely diagnostics, and reducing lifecycle costs to maintain, sustain and repair.

Today, the Office of the Under Secretary of Defense Comptroller OUSD(C) and the Cost Analysis and Program Evaluation (CAPE) use various distinct automated systems (Comptroller Information System (CIS), Program Resource Collection Process (PRCP), Supplemental Resource Collection Process (SRCP), Budget Exhibits Generator and Standard Data Collection System (SDCS)) to formulate, justify, and execute DoD budgets. These six or more systems interact with at least several computer-based systems controlled by external organizations and agencies. These systems manage very similar financial information, yet each uses its own scheme for representing information. Much of the information managed by these systems is redundant. Cross-system data representations and redundancies make it difficult to exchange and to reconcile information. The capabilities provided by Comptroller systems, in some cases, fail to deliver services needed by its users, or fail to operate in ways that complement current and emerging business practices. They fail to give executives information in a comprehensible form, making it difficult to draw conclusions. Data disparities and functional redundancy make these systems more costly to maintain than they need to be.

There is a critical need for the development of a state-of-the-art information technology system to modernize and replace multiple, antiquated legacy systems and processes used to formulate, justify, present and defend the entire Department of Defense Budget in the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) to meet Title 10 and Title 31 mission and reporting requirements. The Comptroller's plan for mitigating the deficiencies and capability gaps associated with current systems is development of the Next Generation Resource Management System.

This initiative exploits emerging technology, processes, trends, capabilities, and techniques to incorporate state-of-the-art information technology enabling the ability, agility, and level of fidelity to collect, process, administer and report resource management data and to automate business processes within a more robust analytical environment within the Office of the Under Secretary of Defense (Comptroller) OUSD(C). Funded efforts will improve the timeliness of resource management reviews and decisions for senior leaders and Congress.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Next Generation Resource Management Service (NGRMS)	0.000	0.000	8.831

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 11 / *Next Generation Resource Management System (NGRMS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: N/A. This program is currently being managed by OSD(C) and will be transferred to DLA in FY 2017. ***FY 2016 Plans:*** N/A. This program is currently being managed by OSD(C) and will be transferred to DLA in FY 2017. ***FY 2017 Plans:*** Plan, develop, test and evaluate the system components (i.e. unified database, expert system, cross domain security, enterprise service bus, applications, services) and supportability requirements in modernizing the budget formulation, programming execution and reporting capabilities for the Department of Defense. Activities will include, but not be limited to, the preparation of all documentation required for Clinger-Cohen Compliance and acquisition regulations, developing requests for proposals, and oversight and management of contracts and deliverables. This program will be transferred to DLA from OSD(C). Plan to: -Continue Program Management Office 1Q FY 2017 - 4Q FY 2017 -Increment 2.0 Deployment 3Q FY 2017 -Task Order award for Increment 3.0 3Q 2017			
Accomplishments/Planned Programs Subtotals	0.000	0.000	8.831

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Milestone C for Increment 2.0 3Q FY2017
Full Deployment Decision (FDD) for Increment 2.0 3Q FY2017
Increment 3.0 development and acceptance 3Q FY 2017 - 3Q FY 2018
Increment 4.0 development and acceptance 3Q FY 2018 – 2Q FY 2020

E. Performance Metrics

N/A.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 11 / *Next Generation Resource Management System (NGRMS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY17 Development	TBD	TBD : TBD	-	-		-		8.163		-		8.163	-	-	-
		Subtotal	-	-		-		8.163		-		8.163	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY17 Support	TBD	TBD : TBD	-	-		-		0.668		-		0.668	-	-	-
		Subtotal	-	-		-		0.668		-		0.668	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.000		8.831		-		8.831	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 11 / *Next Generation Resource Management System (NGRMS)*

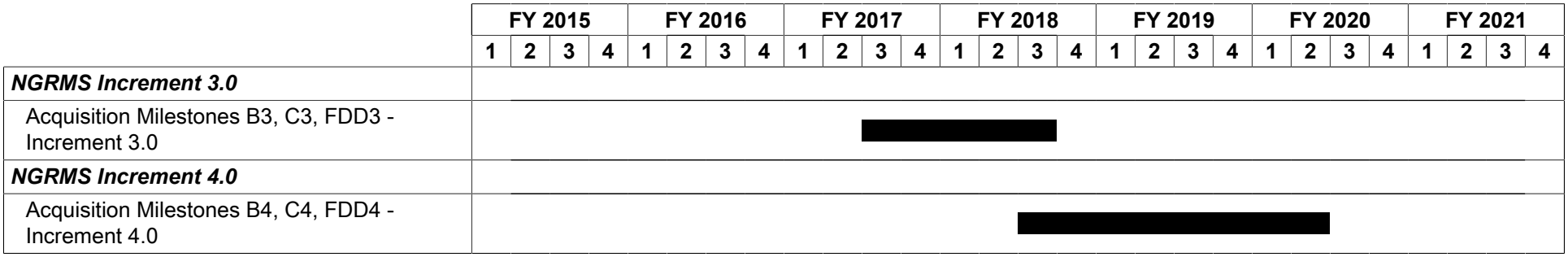


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605070S / *DoD Enterprise Systems Development and Demonstration*	**Project (Number/Name)** 11 / *Next Generation Resource Management System (NGRMS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NGRMS Increment 3.0				
Acquisition Milestones B3, C3, FDD3 - Increment 3.0	3	2017	3	2018
NGRMS Increment 4.0				
Acquisition Milestones B4, C4, FDD4 - Increment 4.0	3	2018	2	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605080S *I Defense Agency Initiatives (DAI) - Financial System*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	44.260	35.497	31.660	26.657	-	26.657	3.836	0.000	0.000	0.000	30.765	172.675
1: *Defense Agency Initiatives (DAI) - Financial System)*	44.260	35.497	31.660	26.657	-	26.657	3.836	0.000	0.000	0.000	30.765	172.675

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 0491

A. Mission Description and Budget Item Justification

This program supports the Defense Agencies Initiative (DAI) Increment 2, an Acquisition Category I program. Previous funding for DAI, Increment 1, was documented in the Defense Enterprise Business Systems program element 0605070S, as well as, FY2013 4th Quarter Increment 2.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	41.465	31.660	26.896	-	26.896
Current President's Budget	35.497	31.660	26.657	-	26.657
Total Adjustments	-5.968	0.000	-0.239	-	-0.239
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-4.600	-			
• SBIR/STTR Transfer	-1.368	-			
• Inflation for Non-Pay & Non-Fuel Purchases	-	-	-0.239	-	-0.239

Change Summary Explanation

In FY15, returned excess funding to OSD in the amount of $4.6M.

In FY17, funding was reduced due to inflation for non-Pay and non-Fuel purchases.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	Project (Number/Name) 1 / *Defense Agency Initiatives (DAI) - Financial System)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Defense Agency Initiatives (DAI) - Financial System)*	44.260	35.497	31.660	26.657	-	26.657	3.836	0.000	0.000	0.000	30.765	172.675
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 0491

A. Mission Description and Budget Item Justification

The DAI mission is to deliver auditable Chief Financial Officer (CFO) Act compliant business environments for Defense Agencies providing accurate, timely, authoritative financial data supporting the DoD goal of standardizing financial management practices improving financial decision support, and supporting audit readiness. Currently, Defense Agencies use more than 10 different non-compliant financial management systems supporting diverse operational functions and the warfighter in decision making and financial reporting. These disparate, non-integrated systems do not meet statutory requirements to produce timely, auditable reports.

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 and field activities across the DoD. DAI will support 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 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 is to deploy 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 12.2.3 (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 source).

DAI supports the 2014 Quadrennial Defense Review (QDR) Strategy 5, "Reform the business and support functions of the Defense enterprise". DAI is also aligned to the DOD Agency Strategic Fiscal Years 2015-2018, Goal 5: Reform and Reshape the Defense Institution, Key Strategic Initiative - Improving competitiveness through accountability and efficiency and SO 5.2: Improve financial processes, controls, and information via audit readiness. The objective of the DAI system is to achieve auditable, CFO Act compliant business environments for the Defense Agencies with accurate, timely, authoritative financial data.

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; Procure to Pay (P2P); Acquire to Retire (real property

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

lifecycle accounting only); Hire to Retire (Time and Labor reporting only); and Order to Cash. Release (Rel) 1 provided an application upgrade to Oracle R12 along with (P2P) enhancements facilitating SFIS/SLOA compliance and automated Time and Labor absence management. Rel 2 introduced Grants Financial Management accounting and the start of a phased implementation of Governance, Risk and Compliance (GRC) capabilities. Future capabilities will support Rel 3 Direct Treasury Disbursing and Budget Formulation as well as Rel 4 Defense Working Capital Fund accounting, and Re-Sale Accounting (for Defense Commissary Agency (DeCA).

DAI is currently implemented at 18 Defense Agencies and the Office of the Under Secretary of Defense, Comptroller, (OUSD(C)) (Time and Labor only) and supporting over 24,922 users. 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 deployments, and initiate the annual Statement on Standards for Attestation Engagements No. 16 (SSAE 16) assertion packages.

The benefits of DAI are:
- Common business processes and Enterprise data standards (i.e., SFIS and SLOA);
- Access to real-time financial data transactions;
- Significantly reduced data reconciliation requirements;
- Enhanced analysis and decision support capabilities; and
- Use of United States Standard General Ledger (USSGL) Chart of Accounts to resolve DoD material weaknesses and deficiencies.

The DAI PMO completed the Oracle R12 application upgrade. The DAI PMO also provides system integration services that include: acquisition/financial management, project management; blueprinting; design, build, and unit test; developing required Reports, Interfaces, Conversions, Extensions, Forms and Workflows (RICE-FW) objects; testing (cyber security/information assurance, integration, functional, performance, conversion, user acceptance, operational); end-user 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; conversion; information assurance; sustainment; data service; help desk support; as well as studies and analysis support.

DLA Information Operations provides the program executive officer, program manager and PMO staff. The DAI PMO relies on DLA Acquisition for most contracting. Defense Information Systems Agency (DISA) Defense Enterprise Computing Centers (DECCs) provide application, development and test as well as Continuity of Operations (COOP) hosting, Technical Contracting Office for development task orders, and the Joint Interoperability Test Command for Interoperability testing. While the DAI PMO serves as systems integrator, niche activities; i.e. P2P, development, are contracted.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Agency Initiatives (DAI) - Financial System	35.497	31.660	26.657
FY 2015 Accomplishments: In FY2015, DAI PMO successfully completed an independent audit documented in a SSAE 16 Service Organization Controls (SOC) 1 report with an unqualified opinion. The DAI PMO completed development of Rel 1 Oracle Release 12 Upgrade providing			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
P2P enhancements. Automated absence management was implemented in two follow-on smaller releases: Rel 1.1 for DoD Educational Activity, Defense Acquisition University and Defense Security Cooperation Agency; and Rel 1.2 for Defense Contract Management Agency and Defense Microelectronics Activity. DAI PMO also procured new user licenses and technology software licenses. DAI was granted Authority to Operate (ATO) from the Designated Accrediting Authority (DAA). The PMO developed a Rel 2 Workforce Preparation Strategy; Rel 1 associated Analysis/ Planning and Reporting Strategy; and a study of hardware hosting options. A plan for a Test & Development (T&D) environment at DISA DECC Mechanicsburg, PA was initiated and later discarded as the center did not have capacity. The PMO conducted Rels 1 and 2 pre- deployment planning and Business Process Reengineering (BPR) with current and prospective agencies and completed Rels 1 and 2 Systems Engineering (SE) Technical Reviews including five Rel 1 simulation mocks with the agencies. DAI PMO was awarded DAI Inc 2 Rel 1 Interim Joint Interoperability Certification, a Rel 1 limited fielding decision by Acquisition Decision Memorandum (ADM) April 21, 2015 and an Acquisition Program Baseline on February 8, 2015. DAI PMO migrated all existing users and their data to the DAI Increment 2 Rel 1 production baseline on May 4, 2015. After Defense Finance and Accounting Service (DFAS) revised the DoD's Federal Financial Management Requirements (FFMRs) in DFAS Blue Book (August 2014), DAI successfully completed an independent review of a regression test of a sample the revised basket of FFMRs (95% compliant). Later, DAI PMO began an assessment against all 797 applicable Federal Financial Management Improvement Act (FFMIA) requirements (91% complete as of September 8, 2015). DAI PMO successfully completed an independent Federal Information System Controls Audit Manual (FISCAM) Test of Design/Test of Effectiveness. The PMO deployed Rel 2 to existing users and to additional users within these agencies. DCMA. DAU, DODEA and DMEA began using DAI for financial management. Also in FY15, Joint Interoperability Test Command (JITC) completed an operational assessment of with several using agencies. JITC found that DAI is making satisfactory progress towards meeting Operational Effectiveness, Suitability, Interoperability, and Cybersecurity (OESIS). For Usability, Training, Sustainment, and Auditability, users reported no major issues or discrepancies during the OA. Survey comments were generally favorable in the areas of system Usability, Training, Help Desk, Configuration Management, Audit Trails, and Business Process accomplishment. Users demonstrated interoperability through successful completion of all mission tasks in all Business Process areas. Reliability and Operational Availability metrics were favorable; however, the prevalent issue reported by users was excessive system response time. PMO also conducted system tuning during Q1 to address this issue and reduced Rel 2 average response time from just over 5 seconds to 2.04 seconds as of December 3, 2015.			
FY 2016 Plans: In FY2016, the PMO will: • Conduct a service provider, independent audit, SSSAE 16 and support the Audit Readiness Office in developing service provider assertion packages supporting the SSAE 16 SOC 1 Report and resolve any Notification of Findings (NOFs). The DAI PMO will use the DECCs SSAE 16 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report that Agencies will use in their audits. DECCs maintain all the operations software and hardware in the suite.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Conduct BEA compliance assessment against the current version (v10.0 as of September 8, 2015), document results in the Department's Integrated Business Framework – Data Alignment Portal (IBF-DAP) portal and conduct Business Process Re-engineering for Rel 4 and October 2017 deploying Defense Agencies. • 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. • Support the DoD Information Assurance Certification and Accreditation Process (DIACAP)/ Risk Management Framework (RMF) process maintaining activity to support actions included in the DAA required POA&M including an independent FISCAM Test of Design/Test of Effectiveness. The submission package will result in a DAA decision to award an ATO. • Conduct testing to include: unit testing on developed items; monthly Rel testing that includes regression; annual Rel development testing that includes a SIT and UAT; Rel 3 developmental testing including a SIT and UAT; as well as an operational assessment event in conjunction with DOT&E following the annual Rel at using Defense Agencies. • Conduct contract renewal competitions and exercise options on existing contracts and monitor contractor performance and billing. • Deploy Rel 2 to some of the October 2017 deploying Defense Agencies' for Time and Labor. • Conduct October 2017 deploying Defense Agencies' implementation activities including data conversion, BPR and workforce preparation. • Continue the implementation of GRC capabilities delivered in Rel 2. • Develop Rel 3 Budget Formulation and Direct Treasury Disbursing capabilities, DAI Configuration Control Working Group (CCWG) approved changes and develop ability to send/receive the Department's Purchase Request and Procurement Data Standards (PRDS/PDS). • Conduct an annual Acquisition In-Process Review (IPR) with the MDA. • Oversee the operations of the DISA DECCs at Ogden, UT (Production and T&D to include training) and Columbus, OH (COOP). The PMO operates database servers, application servers and web servers, leveraging the DECC for infrastructure support and host site related IA and internal controls. DECC services are governed by an annually negotiated Service Level Agreement (SLA). • Maintain currency with existing Federal, DFAS and target Enterprise systems including the System for Award Management (SAM) web services, as SAM assumes the functionality of the Federal Integrated Acquisition Environment (IAE) systems. • Maintain a sufficient Information Assurance/cybersecurity posture and support the DIACAP/ RMF process maintaining activity to support actions included in the Designated Approval Authority required actions included in the POA&M including maintaining currency of documentation in Enterprise Mission Assurance Support Service (EMASS) portal. This includes maintaining the operational and application software currency and security patches. • Maintain DAI master data leveraging feeds from the authoritative data sources. • Maintain the program's DODAF views in accordance with DLA guidance and in DLA systems. • Ensure sufficient administer all of the databases: production; T&D/training; and COOP.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Maintain the system configuration in accordance with the DLA J6 Enterprise Configuration Management Plan (ECMP) and DAI CCWG. • Maintain currency with functional policy with regard to function and data standards. • Maintain the technical side of the system including the internal processes and the operation of several interfaces with external systems leveraging DLA Transaction Services as well as established Federal Enterprise system web services. • Maintain and monitor user roles and responsibilities at the system level and guide using Agencies at the Component level. • Obtain an ATO and Interoperability Certification. . ***FY 2017 Plans:*** In FY 2017, the DAI PMO will • Deploy Rel 3 to current Defense Agencies and to full financial capabilities to Defense Security Cooperation Agency, DoD Inspector General, Director of Operational Test & Evaluation, Defense Information Systems Agency (General Fund) and Defense Human Resources Activity. • DAI PMO will develop Rel 4 Re-Sale Accounting and Defense Working Capital Fund accounting, work instructions, training materials as well as any necessary RICE-FW objects. • Conduct pre-Rel 4 deployment planning and BPR, with new Agencies, Rel 3 Agency mocks and Rel 4 SE technical reviews. • Conduct a service provider, independent audit, SSSAE 16 and support the Audit Readiness Office in developing service provider assertion packages supporting the SSAE 16 Service SOC 1 Report and resolve any identified NOFs. • The DAI PMO will use the DECCs SSAE 16 SOC 1 Report as the basis for its input for the annual DLA SOC 1 Report that Agencies will use in their audits. DECCs maintain all the operations software and hardware in the suite. • Conduct BEA compliance assessment against the current version (v10.0 as of September 8, 2015), document results in the Department's IBF-DAP portal and conduct Business Process Re-engineering for newly joining Defense Agencies. • 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. • Support the DIACAP/RMF process maintaining activity to support actions included in the DAA required POA&M resulting in a DAA decision to award an ATO. • Conduct testing to include: unit testing on developed items; monthly Rel testing that includes regression; annual Rel development testing that includes a SIT and UAT; Rel 3 developmental testing including a SIT and UAT; as well as an operational assessment event in conjunction with DOT&E following the annual Rel at using Defense Agencies. • Conduct contract renewal competitions and exercise options on existing contracts and monitor contractor performance and billing. • Conduct October 2018 deploying Defense Agencies' implementation activities including data conversion, BPR and workforce preparation.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Continue the implementation of GRC capabilities delivered in Rel 2 based on audit feedback. • Develop, test and release Electronic Funds Distribution (EFD) to DAI production. • Conduct an annual Acquisition IPR with the MDA. • Oversee the operations of the DISA DECCs at Ogden, UT (Production and T&D to include training) and Columbus, OH (COOP). The PMO operates database servers, application servers and web servers, leveraging the DECC for infrastructure support and host site related IA and internal controls. DECC services are governed by an annually negotiated Service Level Agreement (SLA). • Maintain currency with existing Federal, DFAS and target Enterprise systems including the SAM web services, as SAM assumes the functionality of the Federal IAE systems. • Maintain a sufficient Information Assurance/cybersecurity posture and support the DIACAP/ RMF process maintaining activity to support actions included in the Designated Approval Authority required actions included in the POA&M including maintaining currency of documentation in EMASS. This includes maintaining the operational and application software currency and security patches. • Maintain DAI master data leveraging feeds from the authoritative data sources. • Maintain the program's DODAF views in accordance with DLA guidance and in DLA systems. • Ensure sufficient administer all of the databases: production; T&D/training; and COOP. • Maintain the system configuration in accordance with the DLA J6 ECMP and the DAI CCWG. • Maintain currency with functional policy with regard to function and data standards. • Maintain the technical side of the system including the internal processes and the operation of several interfaces with external systems leveraging DLA Transaction Services as well as established Federal Enterprise system web services. • Maintain and monitor user roles and responsibilities at the system level and guide using Agencies at the Component level. • Procure required hardware, software and licenses for new Agency's personnel. • Obtain an ATO and Interoperability Certification.			
Accomplishments/Planned Programs Subtotals	35.497	31.660	26.657

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

DAI is being 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 and Milestone Decision Authority (MDA).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

In the Acquisition Decision Memorandum (ADM) of September 23, 2013, the MDA placed DAI Increment 1 in sustainment. Increment 2 will address the Commercial Off The Shelf (COTS) application upgrade. The upgrade was completed (January 2015); therefore, Increment 2 Rel 1 overwrote Increment 1 for all users.

E. Performance Metrics

The following performance metrics will be performed on the DAI system:

Functionality: Financial system performance. PEO will determine substantial compliance with the annual Investment Review of PMO assertion of compliance with the latest version of the Department's BEA in scope requirements for Defense Financial Management Improvement Guidance (DFMIG) and other laws regulations and policy. Objective: Substantial compliance.

Program Conformance to BEA Processes, Data Standards, and Business Rules. The PEO will determine substantial compliance with the annual Investment Review of PMO assertion of compliance with the latest version of the Department's BEA. Objective: Substantial compliance.

Net Ready Key Performance Parameter (NR-KPP)
Attribute (Att) A - Support net-centric DoD military operations
Mission: Transform the budget, finance, and accounting operations of the DoD Agencies to achieve accurate and reliable financial information in support of financial accountability and effective and efficient decision making throughout the Defense Agencies in support of the missions of the warfighter.

A.1. Budget to Report (B2R). DAI provides General Ledger, Trial Balance, Budget Execution, and Financial Reporting Capabilities.
DAI will measure the percentage of successful attempts to:
* Generate and transmit Trial Balance Reports. Objective-95%;
* Receive budget information from agency-specific systems, to support budget execution. Objective-95%; and
* Generate and transmit reports to support period end processing procedures. Objective-95%

A.2 Procure to Pay (P2P). DAI provides the capability to Order Materials and Services (Commitments), Record Purchases and Contract Information (Obligations) Pay Bills (Accounts Payable), and Create Ready to Pay File.
DAI will measure the percentage of successful attempts to:
* Exchange contract, obligation, receipt and invoice information with external systems to support procurement processes. Objective-95%;
* Receive Purchase Card information from external systems to manage government purchase cards (P-Cards). Objective-95%;
* Exchange data across agencies to support intergovernmental Purchase Request (PR) processes. Objective-95%;
* Receive travel related data from external systems to support travel financial accounting events. Objective-95%; and
* Exchange miscellaneous payment information with trading partners. Objective-95%.

A.3. Order to Cash (O2C). DAI provides the capability to Receive Customer Orders, Record Work Performed on the orders, Bill Customers, and Track Accounts Receivable.
DAI will measure the percentage of successful attempts to:

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
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* Exchange data with external systems to support management of customer orders. Objective-95%;
* Exchange receivables data with external systems. Objective-95%; and
* Manage exchange collections data with external systems. Objective-95%.

A.4. Acquire to Retire (A2R). DAI provides the capability to record Asset Acquisition, Depreciation, and Disposal DAI will measure the percentage of successful attempts to:
* Receive asset creation information from external systems. Objective-95%;
* Accumulate and transmit costs incurred for Capital Assets on Construction in Progress (CIP) and Work in Progress (WIP) projects. Objective-95%;
* Generate and transmit property accounting information. Objective-95%;
* Receive property maintenance data from external systems. Objective-95%; and
* Receive disposal of assets information from external systems. Objective-95%.

A.5. Cost Management (formerly Cost Accounting). DAI provides Cost Accounting and Allocation Capabilities
DAI will measure the percentage of successful attempts to:
* Receive Project Budgets from external systems. Objective-95%; and
* Receive cost data to support cost collection processes. Objective-95%.

A. 6. Hire to Retire (H2R). DAI provides Civilian, Military, and Contractor Time and Labor capabilities DAI will measure the percentage of successful attempts to:
* Exchange employee and timekeeping information with external systems. Objective-95%; and
* Process and send payroll data to external systems. Objective-95%.

NR-KPP Att B - Managed in the Network
1) Type of Networks that are connected:
- The DAI application supports multiple Defense Agencies, and thus is accessible from multiple network points. A typical user accesses the application via the web browser from his/her agency specific LAN/WAN and/or local site firewall configurations, traversing through the Non-Classified Internet Protocol Routing Network (NIPRNet) to reach the secure DAI application hosted within the DoD Demilitarized Zone (DMZ) which is controlled and managed by DISA.
- The DAI production application is hosted in a DISA DECC environment located in Ogden, UT and is managed by DAI Program Management Office

2) Measures of Performance (MOPs) to measure network entrance and management performance:
a) Network related (DISA) – as per DISA Catalog of Services
-Interactive Availability - Portion of network/system controlled by DISA CSD available to the partner during the interactive window
-Batch Throughput – Completion rate and delivery by specified time during batch window specified in SLA
b) Database related (DAI Program Management Office)
-System Availability

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

-On Line user system response

3) Network Management:
-The Agency (user) being supported is responsible for the communications infrastructure necessary for leaving their location to connect users to the NIPRNet
-DISA is responsible for communications on NIPRNet between the end user and the main DAI environment
-DAI Program Management Office is responsible for activities occurring within the application and the Oracle Database

4) Systems Management
-NIPRNet and Infrastructure - Centralized within DISA CSD
-DAI System – centralized within DAI Program Management Office

5) Network Configuration Parameters – N/A (within the realm of DISA management) DAI will measure the percentage of success for:
* Supports secure Internet/NIPRNET access to solution. Interactive Availability. Objective-98.5%;
* Supports secure Internet/NIPRNET access to solution. Batch Throughput. Objective-95%;
* Provides adequate system response and availability to support operations. System Availability. (Condition: 5000 users/hour) Objective-95%; and
* Provides adequate system response and availability to support operations. On-line system response. (Condition: 5000 users/hour) Objective-95%.

NR-KPP Att C - Effectively Exchange Information.
DAI will satisfy all top-level critical Information Exchange Requirements (IERs) with all required DoD Enterprise, DFAS, Defense Agencies, and Federal Systems, as documented in SV-6. There are 47 data exchanges with other systems. The objectives are 100% for accuracy and ten seconds to 1 day for timeliness. Additional details available upon request.

Major Performers

CACI INC Federal
Chantilly, VA
Global Model Implementation and Compliance Support to DAI

CACI Inc Federal
Chantilly, VA
DAI Implementation Support Services

TASC, Inc.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

Andover, MA
DISA Test and Development

CACI ISS, Inc
Fairfax, VA
Infrastructure Support

Terathink Corporation
Reston, VA
Data Conversion Support

International Business Machines Corporation
Reston, VA
DAI Global Model Development for Procure to Pay (P2P), Order to Cash (O2C), Budget to Retire (B2R), and Customer Application Development (CAD)

CACI Inc. Federal
Chantilly, VA
DAI Global Model Development for Acquire to Retire (A2R), Cost Accounting (CA), and Time and Labor (T&L)

Mythics Inc DBA
Virginia Beach, VA
Oracle CLM and Purchase Software

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DAI Compliance Support	Option/ CPFF	CACI Inc Federal : Chantilly, VA	10.615	3.429	Jan 2014	3.713	Jan 2016	5.569		-		5.569	Continuing	Continuing	-
DAI Implementation Support	Option/ CPAF	CACI Inc Federal : Chantilly, VA	7.467	8.197	Aug 2015	5.221	Jul 2016	5.509		-		5.509	Continuing	Continuing	-
Infrastructure Support	Option/ FFP	CACI ISS Inc : Fairfax, VA	2.665	0.689	Jan 2015	1.040	Jan 2016	1.002		-		1.002	Continuing	Continuing	-
Global Model CAD	C/CPFF	CSC : Falls Church, VA	1.007	1.099	Apr 2015	0.000		-		-		-	0.000	2.106	-
Global Model P2P	C/FFP	IBM : Bethesda, MD	3.531	7.085	Apr 2015	6.020	Apr 2016	4.619		-		4.619	Continuing	Continuing	-
Global Model A2R	C/CPFF	CACI Inc Federal : Chantilly, VA	1.445	2.397	Apr 2015	2.273	Apr 2016	1.244		-		1.244	Continuing	Continuing	-
Data Conversion	Option/ FFP	Terathink : Reston, VA	0.814	0.850	May 2015	0.848	May 2016	0.000		-		0.000	0	2.512	-
Jaws Professional Licenses	C/FFP	Immix : McLean, VA	0.017	-		0.000		0.000		-		0.000	0.000	0.017	-
License Purchase	TBD	TBD : TBD	0.000	0.000		9.442	Jan 2016	3.611	Jan 2017	-		3.611	Continuing	Continuing	-
Oracle Contract Lifecycle Management licenses	C/FFP	Mythics Inc : Virginia Beach, VA	3.342	2.033	Oct 2015	0.000		0.000		0.000		0.000	0.000	5.375	-
Oracle Licenses	MIPR	DISA : Pensacola,FL	5.225	5.396		0.000		0.000		0.000		0.000	0	10.621	-
Additional Memory	MIPR	DISA : Pensacola, FL	1.004	0.033		0.000		0.000		0.000		0.000	0	1.037	-
Kurzweil 5000 508 Assistive Tech Licenses	C/FFP	Envision Technology Inc : Bethesda, Md	0.008	-		-		-		-		-	0	0.008	-
Dragon Naturally Speaking 508	C/FFP	Red River Computer Co : Claremont, NH	0.007	-		-		-		-		-	0	0.007	-
		Subtotal	37.147	31.208		28.557		21.554		0.000		21.554	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*	

Test and Evaluation ($ in Millions)

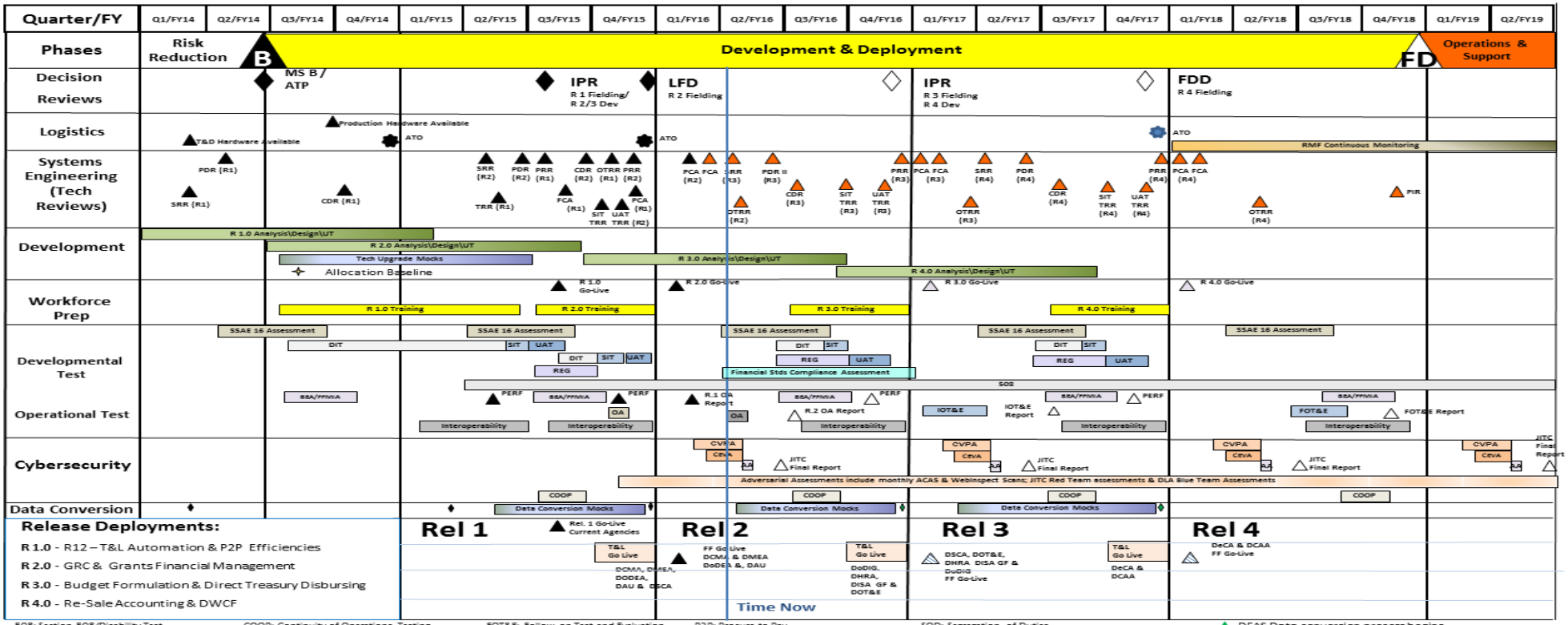
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Development	MIPR	DISA : Pensacola, FL	3.204	0.797	Oct 2015	0.216	Oct 2016	2.161	Oct 2017	-		2.161	Continuing	Continuing	-
Independant Testing	MIPR	JITC : Indian Head, MD	1.790	1.155	Oct 2015	2.887	Apr 2016	2.942	Apr 2017	-		2.942	Continuing	Continuing	-
Performance and Regression Testing	MIPR	JITC : Ft Huachuca	0.979	0.721	Jul 2015	-		-		-		-	0	1.700	-
Operational Test and Evaluation	MIPR	JITC : Fort Huachuca, AZ	1.037	1.461	Oct 2015	-		-		-		-	0	2.498	-
DCPS Testing	MIPR	DFAS : Indianapolis, IN	0.103	0.155		-		-		-		-	0	0.258	-
		Subtotal	7.113	4.289		3.103		5.103		-		5.103	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	44.260	35.497		31.660		26.657		0.000		26.657	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

DAI INC 2 Schedule



SOD: Segregation of Duties
SRR: Software Requirements Review
SSAE 16: Statement of Standards for an Attestation Engagement
Stds: Standards
T&D: Test and Development
T&L: Time & Labor
TRR: Test Readiness Review
UAT: User Acceptance Testing
USSGL: United States Standard General Ledger
UT: Unit Test

DFAS Data conversion process begins (12 - 24 months duration/size)

Increment Approach
Updated January 6, 2015

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605080S / *Defense Agency Initiatives (DAI) - Financial System*	**Project (Number/Name)** 1 / *Defense Agency Initiatives (DAI) - Financial System)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
N/A	1	2014	1	2014

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	8.229	9.801	10.135	4.949	-	4.949	4.872	2.226	1.753	1.785	Continuing	Continuing
1: *Defense Retired and Annuitant Pay System 2 (DRAS)*	8.229	9.801	10.135	4.949	-	4.949	4.872	2.226	1.753	1.785	Continuing	Continuing

A. Mission Description and Budget Item Justification

The primary objective of Defense Retired and Annuitant Pay System 2 (DRAS 2) is to establish and maintain a modernized retired military pay accounts.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	10.135	13.085	8.166	-	8.166
Current President's Budget	9.801	10.135	4.949	-	4.949
Total Adjustments	-0.334	-2.950	-3.217	-	-3.217
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.950			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.334	-			
• Underexecution	-	-	-2.441	-	-2.441
• SRRBs/U	-	-	-0.732	-	-0.732
• Inflation for Non-Pay/Non-Fuel Purchases	-	-	-0.044	-	-0.044

Change Summary Explanation

In FY 2016, PE was reduced $2.950M for a delayed new start contract award.

In FY 2017, PE was reduced $2.441M for underexecution and $0.732 for Services Requirements Review Boards (SRRBs)/Contractor Courts (U).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*	Project (Number/Name) 1 / *Defense Retired and Annuitant Pay System 2 (DRAS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Defense Retired and Annuitant Pay System 2 (DRAS)*	8.229	9.801	10.135	4.949	-	4.949	4.872	2.226	1.753	1.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The primary objective of Defense Retired and Annuitant Pay System 2 (DRAS 2) is to establish and maintain a modernized retired military pay accounts. DRAS 2 will replace the current Defense Retiree and Annuitant Systems (DRAS) and selected manual processes with proven state of the market technology. This modernization will allow for the consolidation of disparate DRAS systems and business processes, the reduction of system redundancies and inefficiencies, increased customer satisfaction.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Retired and Annuitant Pay System (DRAS) 2	9.801	10.135	4.949
FY 2015 Accomplishments: -DRAS2 issued a system development task order for continued system development activities in support of Milestone B and Critical Design Review. -DRAS2 obtained the USCG GOTS and Oracle PeopleSoft COTS licensing and established the DRAS2 software baseline. -DRAS2 performed Data Management activities in support of DRAS legacy data cleansing. -Obtained DLA Transaction Services for DRAS2 system interface activities. -Established development environment.			
FY 2016 Plans: -DRAS2 will issue a task order to continue system development, testing, and Information Assurance activities for Build 1 and 2. -Deliver 2 Conference Room Pilots and training modules and perform system regression, integration, and Functional testing. -DRAS2 will obtain additional Oracle PeopleSoft COTS software licensing. -Maintain Transaction Services for DRAS2 system interface activities. -Establish Data Management environment in MilCloud and begin legacy data cleansing activities. -Complete Build 1 configuration and design activities and begin development.			
FY 2017 Plans: -DRAS2 will issue a Task Order to continue system development, testing, and Information Assurance activities. Development activities include Build 2 requirements review and Conference Room Pilots, Build 2 System / Regression, System Integration, Function -Obtain additional COTS software licensing.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*	**Project (Number/Name)** 1 / *Defense Retired and Annuitant Pay System 2 (DRAS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
-Continue development of system interfaces and performance testing. -Establish DRAS2 hosting environment.			
Accomplishments/Planned Programs Subtotals	9.801	10.135	4.949

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

DRAS2 will achieve Milestone B in March 2016 and perform Critical Design Review in April 2016. After CDR DRAS2 will be in the Engineering, Development, and Production Phase of the Acquisition Lifecycle.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*	**Project (Number/Name)** 1 / *Defense Retired and Annuitant Pay System 2 (DRAS)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DRAS2 System Development and Integration	Option/ IDIQ	CSRA : To be Determined	1.478	5.894	Sep 2015	5.850	Sep 2016	1.495	Sep 2017	-		1.495	Continuing	Continuing	-
DRAS2 COTS License Purchase	Option/ IDIQ	CSRA/Oracle : To be Determined	5.951	2.857	May 2015	3.235	May 2016	1.195	May 2017	-		1.195	Continuing	Continuing	-
Cloud Hosting	MIPR	Commercial Cloud Provider : To Be Determined	0.000	0.000		0.000		0.959	Nov 2017	-		0.959	Continuing	Continuing	-
Transaction Services Interface Design	MIPR	DLA Transaction Services : Chambersburg, PA	0.800	1.050	May 2015	1.050	May 2016	0.800	May 2016	-		0.800	Continuing	Continuing	-
JITC - Testing	MIPR	JITC : To Be Determined	0.000	-		-		0.500	Nov 2016	-		0.500	-	-	-
		Subtotal	8.229	9.801		10.135		4.949		-		4.949	-	-	-

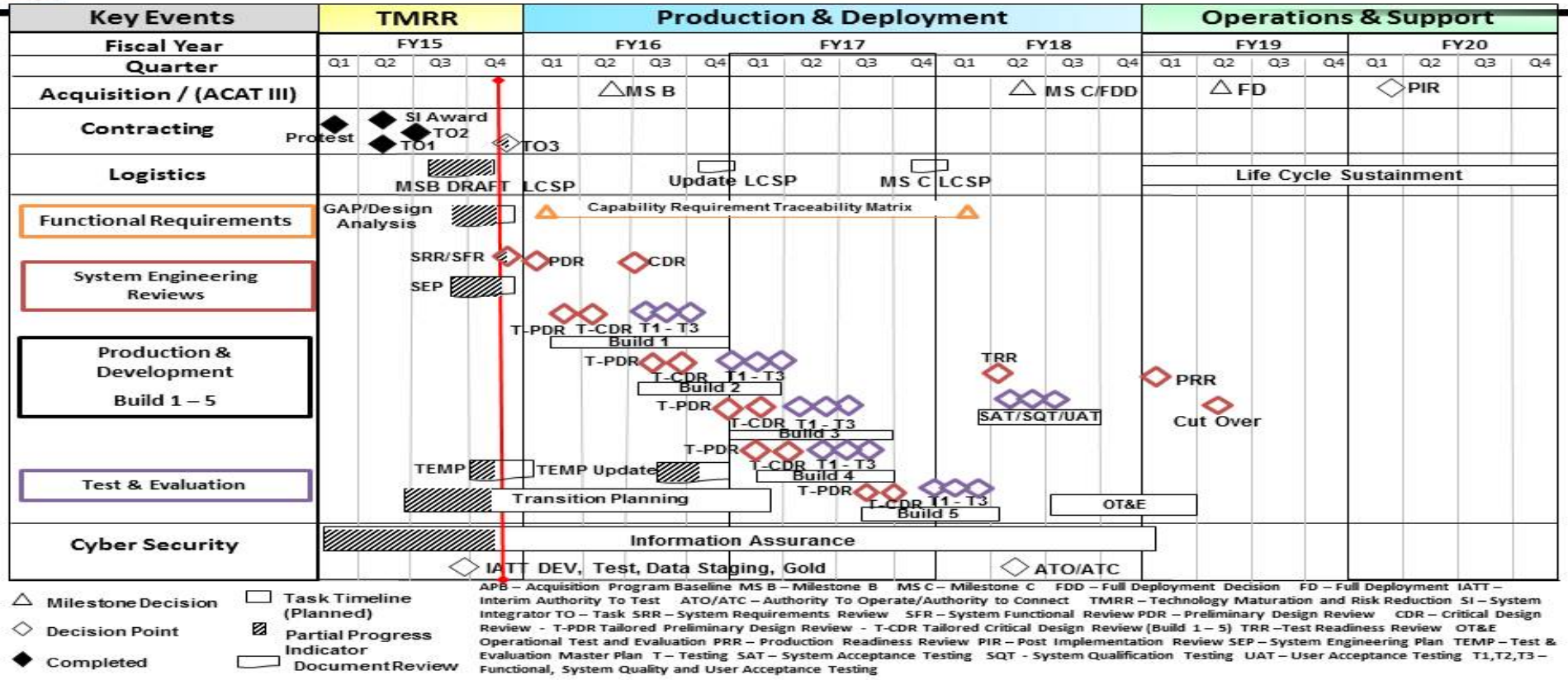
	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	8.229	9.801		10.135		4.949		-		4.949	-	-	-

Remarks

The System Development and Integration Contract is scheduled to award during September 2016.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*	**Project (Number/Name)** 1 / *Defense Retired and Annuitant Pay System 2 (DRAS)*

DRAS2 Top Level Schedule



APB – Acquisition Program Baseline MS B – Milestone B MS C – Milestone C FDD – Full Deployment Decision FD – Full Deployment IATT – Interim Authority To Test ATO/ATC – Authority To Operate/Authority to Connect TMRR – Technology Maturation and Risk Reduction SI – System Integrator TO – Task SRR – System Requirements Review SFR – System Functional Review PDR – Preliminary Design Review CDR – Critical Design Review - T-PDR Tailored Preliminary Design Review - T-CDR Tailored Critical Design Review (Build 1 – 5) TRR –Test Readiness Review OT&E Operational Test and Evaluation PRR – Production Readiness Review PIR – Post Implementation Review SEP – System Engineering Plan TEMP – Test & Evaluation Master Plan T – Testing SAT – System Acceptance Testing SQT - System Qualification Testing UAT – User Acceptance Testing T1,T2,T3 – Functional, System Quality and User Acceptance Testing

WARFIGHTER FIRST - PEOPLE & CULTURE - STRATEGIC ENGAGEMENT - FINANCIAL STEWARDSHIP - PROCESS EXCELLENCE

1

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605090S / *Defense Retired and Annuitant Pay System (DRAS)*	**Project (Number/Name)** 1 / *Defense Retired and Annuitant Pay System 2 (DRAS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Defense Retired and Annuitant Pay System (DRAS)				
Defense Retired and Annuitant System (DRAS)	1	2017	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502S *I Small Business Innovative Research (SBIR)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	11.805	5.711	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Small Business Innovative Research (SBIR)*	11.805	5.711	0.000	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 Department'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 high-risk research and development proposals from the small business community. All selections shall demonstrate and involve a high degree of technical risk with yet to be determined technical feasibility. Phase I proposals should demonstrate the feasibility of the proposed technology and the merit of a Phase II for a prototype or at least a proof-of-concept demonstration. Future market possibilities and demonstrated commercialization potential have a strong influence on Phase II selections.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	5.711	0.000	0.000	-	0.000
Current President's Budget	5.711	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	-	-			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502S / *Small Business Innovative Research (SBIR)*	Project (Number/Name) 1 / *Small Business Innovative Research (SBIR)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Small Business Innovative Research (SBIR)*	11.805	5.711	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

This project 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 Defense Logistics Agency (DLA) needs. 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 Defense Logistics Agency`s SBIR/STTR investments are divided into multiple Research Areas identified from within several DLA Elements:

J3 R&D
- Advanced Battery Manufacturing (BATTNET): Manufacturing Improvements for DLA Lithium Batteries
- Advanced Castings and Forgings (PRO-Fast):
- Anti Counterfeiting:
- Aircraft Alternative Braking System for Reduced Cost of Sustainment
- Economically Recovering Rare Earth Materials
- Advanced Technologies for Smart Connected Logistics

J6 R&D
- TBD

DMEA
- TBD

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SBIR Accomplishments/Plans	5.711	0.000	0.000
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*	**Project (Number/Name)** 1 / *Small Business Innovative Research (SBIR)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
DLA SBIR ($3.710M): The DLA SBIR Program used three new topics in FY15. Twenty-six new phase I awards were the result. DLA selected one new Phase II award this FY. DLA awarded a Phase II STTR to a qualifying crossover SBIR project. Anticipate using the new DLA STTR topic supporting advanced anti-counterfeiting technologies in the DOD-wide 2015.C STTR BAA. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DMEA SBIR ($2.001M): Designed a capability to use fiber optic cable to simultaneously distribute power (i.e., power over fiber) while providing full duplex information flow to allow miniature microwave system components to be distributed over a relatively long distance via fiber optics. Began work on a system proof-of-concept design and prototype of an x-ray microscope system that is capable of generating x-ray images in sufficient detail to allow the identification of individual interconnects and gates within an integrated circuit (IC) using a stand-alone non-synchrotron x-ray source. ***FY 2016 Plans:*** DLA SBIR: To continue execution of all active Phase I and Phase II SBIR/STTR Projects. In the DOD-wide 2016.1 solicitation, DLA is using four new topics, Anticipate the selection of one to three topics per topic. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DLA expects to award 7 new phase II awards. To continue execution of all active Phase I and Phase II STTR Projects. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. Expect to award an additional Phase II in late FY16 DMEA SBIR: DMEA will study the feasibility of developing a tool that illuminates an electronic component with free field electromagnetic (EM) energy in the RF and microwave bands to non-destructively scan the part in both powered-on and powered-off conditions to determine authenticity. DMEA will complete the system proof-of-concept design and prototype of an x-ray microscope system that is capable of generating x-ray images in sufficient detail to allow the identification of individual interconnects and gates within an integrated circuit (IC) using a stand-alone non-synchrotron x-ray source. ***FY 2017 Plans:*** DLA SBIR: To continue execution of all active Phase I and Phase II SBIR/STTR Projects. In the DOD-wide 2017.1 solicitation, DLA expects three new topics, Anticipate the selection of one to three topics per topic. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards. DLA expects to award 7-10 new phase II awards. To continue execution of all active Phase I and Phase II STTR Projects. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502S / *Small Business Innovative Research (SBIR)*	**Project (Number/Name)** 1 / *Small Business Innovative Research (SBIR)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
DMEA SBIR: DMEA will continue to seek innovative technical solutions to DoD microelectronics research and development needs and increase private-sector commercialization of these innovations.			
Accomplishments/Planned Programs Subtotals	5.711	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

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)

E. Performance Metrics

SBIR /STTR programs measure performance in two separate metrics

1. Phase Progression: In terms of progression from Phase I to Phase II, to Phase III, DLA deems each successive progression success. DLA Seeks to have a 50% progression from one Phase to the next as a minimum.

2. Commercialization: The Congressional language defines "Commercialization," which is clarified by the Office of Secretary of Defense Office of Small Business Programs (OSD/OSBP) Re-Authorization Policy Directive:
- (Investment) The process of developing products, processes, technologies, or services; and/or
- (Sales) The production and delivery (whether by the originating party or by others) of products, processes, technologies, or services for sale to or use by the Federal Government or commercial markets

The Small Business Administration and OSD/OSBP assign a Commercialization Index based on progression within the Phases and reported successes

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	89.470	20.405	22.605	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
1: *Combat Rations (CORANET)*	6.158	0.474	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
2: *Customer Driven Uniform Manufacture (CDUM)*	15.175	3.324	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	10.327	2.082	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	4.623	1.004	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
5: *Material Acquisition Electronics (MAE)*	46.844	11.552	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
6: *Battery Network (BATTNET)*	6.343	1.969	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	0.000	0.000	4.875	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	0.000	0.000	12.373	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	0.000	0.000	5.357	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Industrial Preparedness Manufacturing Technology (IP ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. The program matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. It addresses production issues early by providing timely solutions, thereby reducing risk and positively impacting system life cycle affordability by providing solutions to manufacturing problems before they occur.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*

Beginning in FY 16 DLA ManTech was realigned into three Strategic Focus Areas (SFA): 1) Improving Industrial base Manufacturing Processes; 2) Maintaining Viable Sources of Supply; and 3) Improving Technical and Logistics Information.

• The Improving Industrial Base Manufacturing Processes SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA subsumed the former supply chain oriented efforts in Subsistence Network (formerly Combat Rations Network for Technology Implementation), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST), and Battery Network (BATTNET). New manufacturing processes within the scope of this SFA include emerging technologies such as Additive Manufacturing.

• Maintaining Viable Supply Sources includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements. This SFA subsumed the Material Acquisition Electronics ManTech efforts. In the future it will include other DLA efforts to maintain a viable industrial capability in areas such as Strategic Materials.

• The Improving Technical and Logistics Information SFA include efforts to improve and facilitate the exchange of engineering and logistics information among DLA industry partners and customers. It includes the MANTECH program Military Uniform System Technology (MUST) (formerly Customer Driven Uniform Manufacturing) and the Defense Logistics Information Research Program from P.E. 0603712S. 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	22.366	24.605	24.865	-	24.865
Current President's Budget	20.405	22.605	0.000	-	0.000
Total Adjustments	-1.961	-2.000	-24.865	-	-24.865
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-2.000			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.320	-			
• SBIR/STTR Transfer	-0.641	-			
• Program Fund Realignment from BA07 to BA03 PE 0603680S	-	-	-34.211	-	-34.211
• Internal Fund Realignment	-	-	9.346	-	9.346

Change Summary Explanation

Over the FY 17 $9.346M was realigned to the ManTech PE from the DLA Log R&D PE (0603712S) and DLA Procurement Defense-Wide Fund. These funds will address critical shortfalls in the Improving Industrial Base Manufacturing Processes and Maintaining Viable Supply Sources. The largest requirement was in the Maintaining Viable Supply Sources to develop a long-term, reliable source of linear microcircuits. These devices are critical to maintaining the readiness of front line weapon system electronics. High priority requirements in the Improving Industrial Base Manufacturing Processes SFA included additional funding for battery technology, castings and forging manufacturing technology.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 1 / *Combat Rations (CORANET)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Combat Rations (CORANET)*	6.158	0.474	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

In 2015, DLA R&D expanded the Combat Rations Network (CORANET) program to include the "Subsistence Supply Chain," which consists of the supply chain for military subsistence, including combat rations, field feeding equipment, garrison feeding and "market fresh." The Subsistence Network (SUBNET) Program is a Manufacturing Technology Program and is the successor to the CORANET R&D program. SUBNET will form a community of practice 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. Funding and technical work for the SUBNET program has been reallocated to the Material Availability Strategic Focus Area. The SUBNET program engages all elements of the supply chain including the producers, military services, Army Natick Soldier Research Development and Engineering Center, United States Department of Agriculture (USDA), US Army Veterinary Command, US Army Public Health Command, DLA Logistics R&D, DLA Troop Support Subsistence and academia to research, leverage, implement, and transition improved technologies in the subsistence supply chain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Combat Rations (CORANET)	0.474	0.000	-
FY 2015 Accomplishments: Completed phase II (identified products to test) of the Microwave Assisted Thermal Sterilization (MATS) of Group-sized Combat Rations and begin implementation for MATS processing to determine if other rations can benefit from the same pilot process as a second wave of MATS initiatives. Kick-off of the new short-term project (STP), Meal-Ready to Eat (MRE) Alternate Chemical Resistant Pouch Laminate to identify alternate materials for MRE pouches needed for high acid food products. Additionally, completed Phase I (establish baseline temperature) and began Phase II (determine food quality degradation system) of the Combat Ration Shelf-Life Temperature Monitoring. Further, completed phase I (establish inspection baseline) and began Phase II, which is to analyze and optimize inspection and propose strategies that will reduce the overall inspection cost associated with combat rations without affecting the quality of the product.			
FY 2016 Plans: Finalize SUBNET Broad Agency Announcement (BAA). Efforts related to SUBNET have been moved to the Improving Industrial Base Manufacturing Processes (formerly Material Availability Strategic Focus Area).			
Accomplishments/Planned Programs Subtotals	0.474	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

D. Acquisition Strategy

N/A

E. Performance Metrics

The Subsistence Network plan is to execute reductions in cost and/or as applicable improve processes in the subsistence supply chain related to shipping, storage, inventory, waste and inspections, and quality of products, as well as reduce lead times for combat ration production, field feeding equipment, garrison feeding and market fresh (bread and dairy) products.

Specific technical achievements of the Microwave Assisted Thermal Sterilization (MATS) project will include demonstrating MATS production capability to sterilize group-sized entrees and components, packaged in institutional sized pouches and polymeric trays. Rations processed through MATS should offer substantial cost benefits over current retorted or thermally processed rations due to fast heating rate, high energy efficiency, increased production, reduced labor, improved quality, and a flexibility of differential heating for multi-components trays or pouches to preserve the optimal quality of individual components. MATS will also produce products with better taste and texture, higher nutrient retention, longer shelf life, greater menu variety, and ultimately greater consumption of rations and less food waste.

Specific technical achievements of the MRE Alternate Chemical Resistant Pouch Laminate will include evaluating various alternate sealant layers and test them for acid resistance, as well as overall performance in the MRE ration ultimately leading to the identification and production of alternate sealant layers for high acidic foods. The project will mitigate current risks in the material supply chain and establish reliable production for advanced pouch materials. Additionally, through this project the use of glass bottles for hot sauce and eliminating pouches for more viscous products such as ketchup and mustard that might not have a three-year shelf life.

Specific technical achievements of the Combat Rations Shelf Life Temperature Monitoring will include achieving a level of new regulatory compliance via monitoring temperature variations in the San Joaquin, CA warehouse where subsistence is being stored and assembled into Unitized Group Rations. The results will identify a range of cost effective device solutions and storage mediation practices. The solution sets will determine shelf life (food quality and safety) degradation to ration components (pre and post assembly) and improve information to the customer.

Specific technical achievements of the Optimize Combat Rations Inspection Costs will include reducing inspection cost performed by two government agencies and ration producer through the elimination of duplicate tests for the same quality attribute that is performed. Based on internal reviews and assessments, proposed solutions will be identified and further evaluated for optimal inspection frequencies and sample sizes in order to minimize cost while maintaining quality and safety goals. The optimized inspection methods that show the most promising strategies and solutions (biggest cost impacts) and quickest return on investment without sacrificing overall product quality for the customer will be verified.

At least 50% of the completed short-term projects will transition in 2016, and OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 1 / *Combat Rations (CORANET)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contract Accounting : NJ	2.800	0.200	Apr 2015	-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Alion Science and Technology Corporation : IL	0.000	0.274	Aug 2015	0.000		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Clemson University : SC	0.180	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Michigan State University : MI	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	SOPAKO Inc : SC	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Illinois : IL	0.420	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Tennessee : TN	0.620	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Washington State University : WA	0.420	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Cadillac Products Inc. : MI	0.220	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Oregon Freeze Dry Inc : OR	0.040	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Research and Development Associates : TX	0.040	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

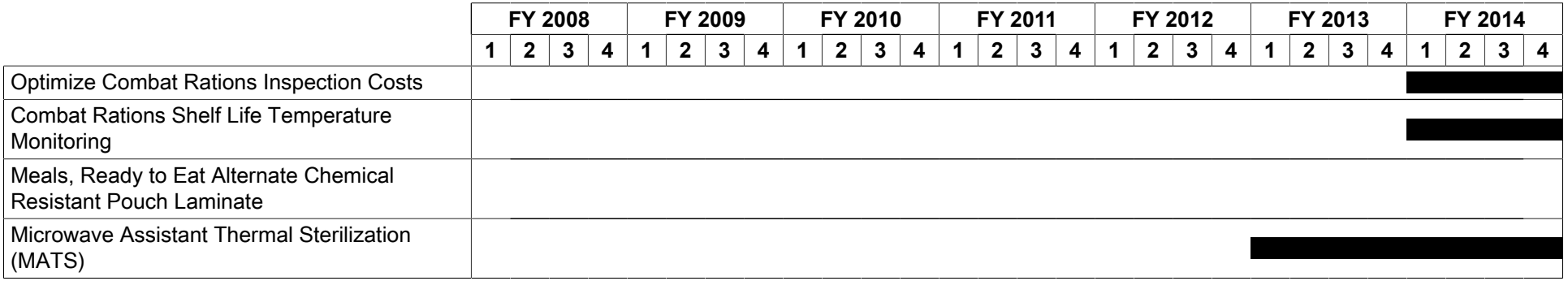
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	The Wornick Company : AL	0.434	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Sterling Foods : TX	0.320	-		-		-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Virginia Polytechnic Institute and State University : VA	0.040	-		-		-		-		-	-	-	-
Combat Rations -- Scientific Engineering and Technical Assistance (SETA)	C/FP	Male Duck Inc : VA	0.200	-		-		-		-		-	-	-	-
Combat Rations -- Scientific Engineering and Technical Assistance (SETA)	C/FP	Analytic Strategies Inc. : VA	0.344	-		-		-		-		-	-	-	-
		Subtotal	6.158	0.474		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.158	0.474		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*



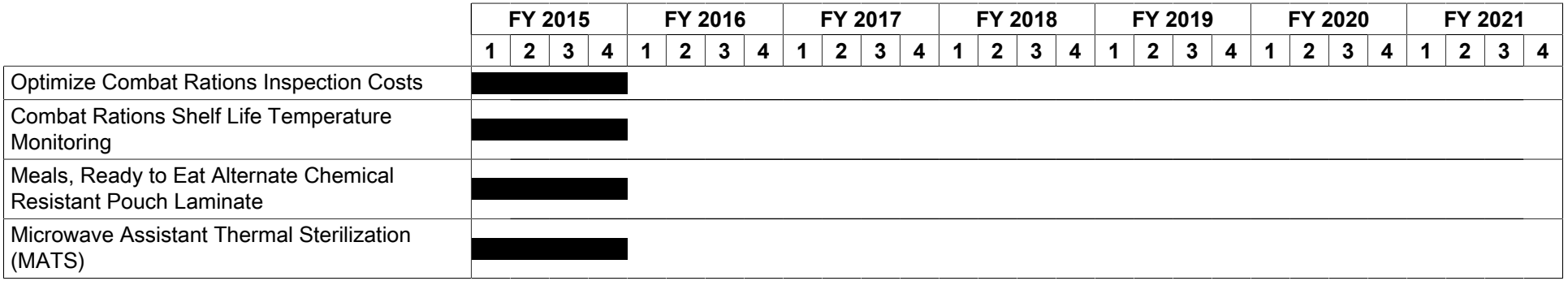


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 1 / *Combat Rations (CORANET)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Optimize Combat Rations Inspection Costs	1	2014	4	2015
Combat Rations Shelf Life Temperature Monitoring	1	2014	4	2015
Meals, Ready to Eat Alternate Chemical Resistant Pouch Laminate	1	2015	4	2015
Microwave Assistant Thermal Sterilization (MATS)	1	2013	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 2 / *Customer Driven Uniform Manufacture (CDUM)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Customer Driven Uniform Manufacture (CDUM)*	15.175	3.324	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 Department of Defense, through the Defense Logistics Agency, spends upwards of $2 billion per year on military uniforms and individual equipment. The lead-time is up to 15 months for these items. The CDUM program concluded in October 2014, and the results have been implemented DOD wide for recruit items. Residual CDUM projects have been transitioned into the Military Unique Sustainment Technology (MUST) Program. The MUST Program was initiated in 4th quarter 2014. The strategic objective of the DLA MUST program is to identify, develop and adopt technologies that can significantly reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an “electronic paper” (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Customer Driven Uniform Manufacture (CDUM)	3.324	0.000	-
FY 2015 Accomplishments: The program has established a roadmap for key technology development areas that will establish knowledge based approach to demonstrate the viability and benefits of the Knowledge Base Approach recommended by the GAO.			
FY 2016 Plans: Efforts related to Program have been moved to Improving Technical and Logistics Information (formerly Industry and Customer Collaboration) SFA.			
Accomplishments/Planned Programs Subtotals	3.324	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Improved Service collaboration and reduced lead-time to introduce new military uniform and individual equipment items.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Improved Service/DLA collaboration on requirement changes and improved communication of those changes to the industrial base.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Support ($ in Millions)

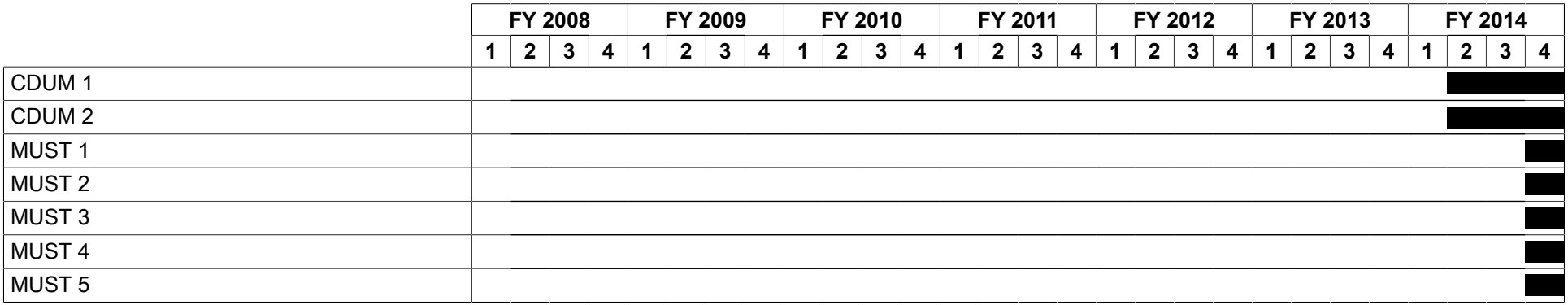
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Advantech, Inc : MD	2.510	0.967	Mar 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Logistics Management Institute : VA	3.893	1.358	Mar 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	XSB Inc : NY	1.910	0.950	Sep 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Clemson University : SC	0.109	0.015	Aug 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	PDIT : SC	0.000	0.034	Nov 2015	-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Patricio Enterprises : VA	3.501	-		-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	MIPR	Alion Science and Technology Corp : VA	3.237	-		-		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	ZWeave Inc. : VA	0.015	-		-		-		-		-	-	-	-
		Subtotal	15.175	3.324		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 2 / *Customer Driven Uniform Manufacture (CDUM)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.175	3.324		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*



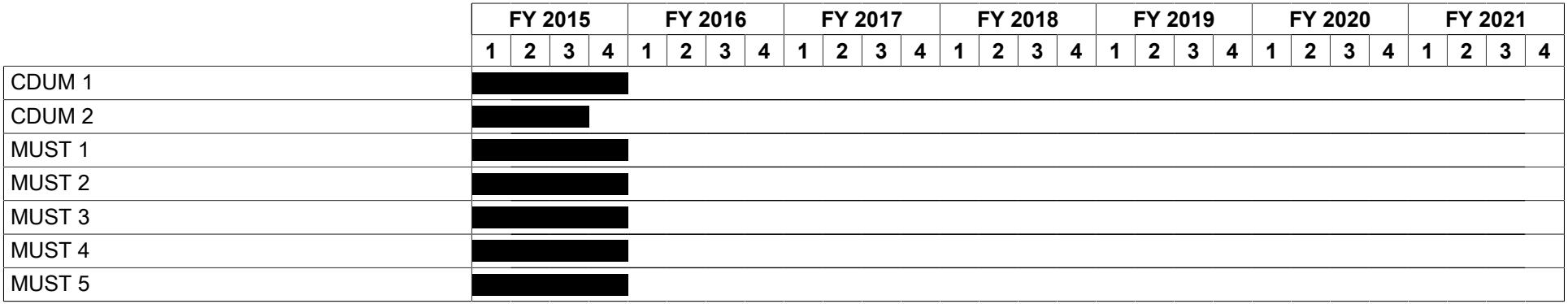


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 2 / *Customer Driven Uniform Manufacture (CDUM)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CDUM 1	2	2014	4	2015
CDUM 2	2	2014	3	2015
MUST 1	4	2014	4	2015
MUST 2	4	2014	4	2015
MUST 3	4	2014	4	2015
MUST 4	4	2014	4	2015
MUST 5	4	2014	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3: *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*	10.327	2.082	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 Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are castings. 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 foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems. The increase in funding will help develop new technology for casting suppliers, including inspection, materials, modeling, and design.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans	2.082	0.000	0.000
FY 2015 Accomplishments: We nominated the Welding High Strength Cast Steel project for the DOD ManTech Achievement Award and it made the top 5 projects, This project actually won the DoD ManTech Achievement Award at the Defense Manufacturing Conference 2015 in Dec 2015. Made good progress on the Lube-Free for Die Castings project, down selecting coating, with some in plant trails to be run in 2nd-3rd quarter FY16.			
FY 2016 Plans: In the Lube-Free for Die Castings project tests using the selected coating will be performed during in-plant trails to be run in 2nd-3rd quarter FY16. Under another project, we also plan to complete the 2nd casting trial of engine airfoils cast using ceramic casting cores, which were Additively Manufactured using Ceramic Stereolithography (CSL). Planning to award a new contract for two projects not funded in previous years. Funding and efforts of the PRO-ACT program were transferred into the Material Availability Strategic Focus Area.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Funding and efforts of the PRO-ACT program were transferred into the Improving Industrial Base Manufacturing Processes Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	2.082	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Competitive Broad Agency Announcement (BAA) was drafted last FY. The current contracts reached end of base period of performance on September 30, 2014 but option extensions for two years were exercised, so base contracts will expire during FY16. Period of performance on current contracts end in FY 17. New BAA is expected to be released in FY16 with contract(s) competitively awarded by 1st QTR FY17.

E. Performance Metrics

Reductions in costs and lead-times, as well as improvements in manufacturing materials, processes and business practices in foundries that produce DOD weapon systems parts.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Casting Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	9.435	1.932	Dec 2014	-		-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Honeywell International Inc : AZ	0.892	0.050	Aug 2015	0.000		-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Global Support Services LLC : AK	0.000	0.100	Feb 2015	-		-		-		-	-	-	-
		Subtotal	10.327	2.082		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.327	2.082		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

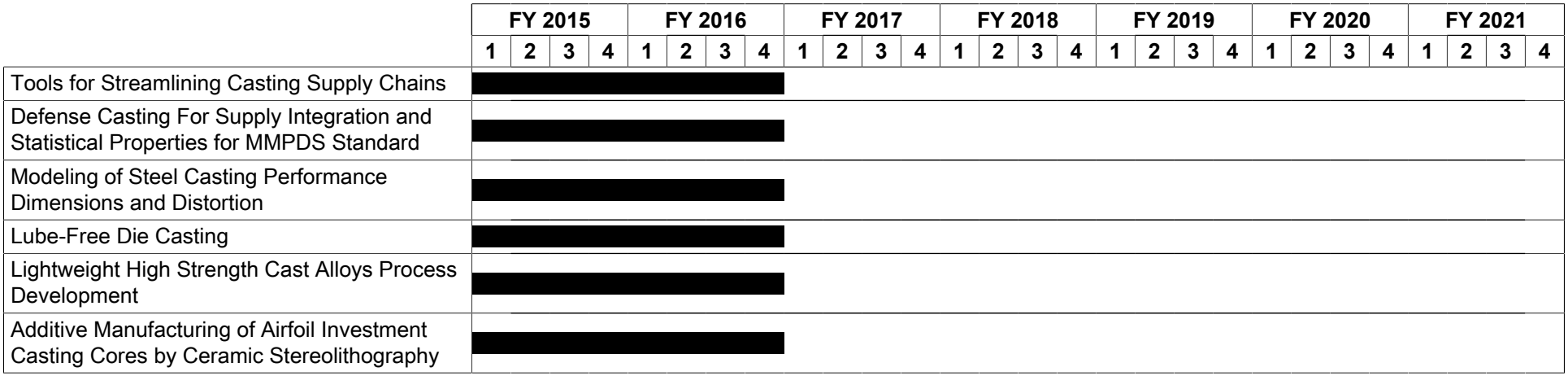


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 3 / *Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Tools for Streamlining Casting Supply Chains	1	2015	4	2016
Defense Casting For Supply Integration and Statistical Properties for MMPDS Standard	1	2015	4	2016
Modeling of Steel Casting Performance Dimensions and Distortion	1	2015	4	2016
Lube-Free Die Casting	1	2015	4	2016
Lightweight High Strength Cast Alloys Process Development	1	2015	4	2016
Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Stereolithography	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
4: *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*	4.623	1.004	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 Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% 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 the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems. The increase in funding will help develop new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time and most expensive item) and for simulation of metal flow inside the forge die (to eliminate trial and error development of the die).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans	1.004	0.000	0.000
FY 2015 Accomplishments: Five new projects were awarded in FY15. Four were awarded in March 2015: 1) Innovations in Repair of Forging Dies; 2) Large-Scale Forging Die Fabrication in Support of the DLA; 3) Simulation in the Development & Optimization of Advanced Forging Processes; and 4) Forged Fiber Reinforced Alum. Engine Components. Another project, Cast Forging Preforms, was awarded under the Improved Forging Acquisition Manufacture and Materials (IFAMM) contract.			
FY 2016 Plans: Funding and efforts of the PRO-FAST program were transferred into the Material Availability Strategic Focus Area. Planned accomplishments for FY16 include completion of the Investigation phase and moving the new projects into the Development Phase. All projects are being managed under a Stage Gate Process, allowing for termination or alteration if progress is not satisfactory.			
FY 2017 Plans: Funding and efforts of the PRO-FAST program were transferred into the Improving Industrial Base Manufacturing Processes			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	1.004	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

A Competitive Broad Agency Announcement (BAA) was used to competitively award all contracts used to execute these forging projects.

E. Performance Metrics

Reduction in lead-time and improvements in manufacturing processes in forging shops that produce DOD weapon systems parts.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Forging Sustainment Manufacturing Technology Process Development	C/CPFF	Advanced Technologies Institute : SC	4.623	0.800		0.000		-		-		-	-	-	-
Forging Sustainment Manufacturing Technology Process Development	MIPR	Alion Science and Technology Corporation : IL	-	0.204	Feb 2015	-		-		-		-	-	-	-
		Subtotal	4.623	1.004		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.623	1.004		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

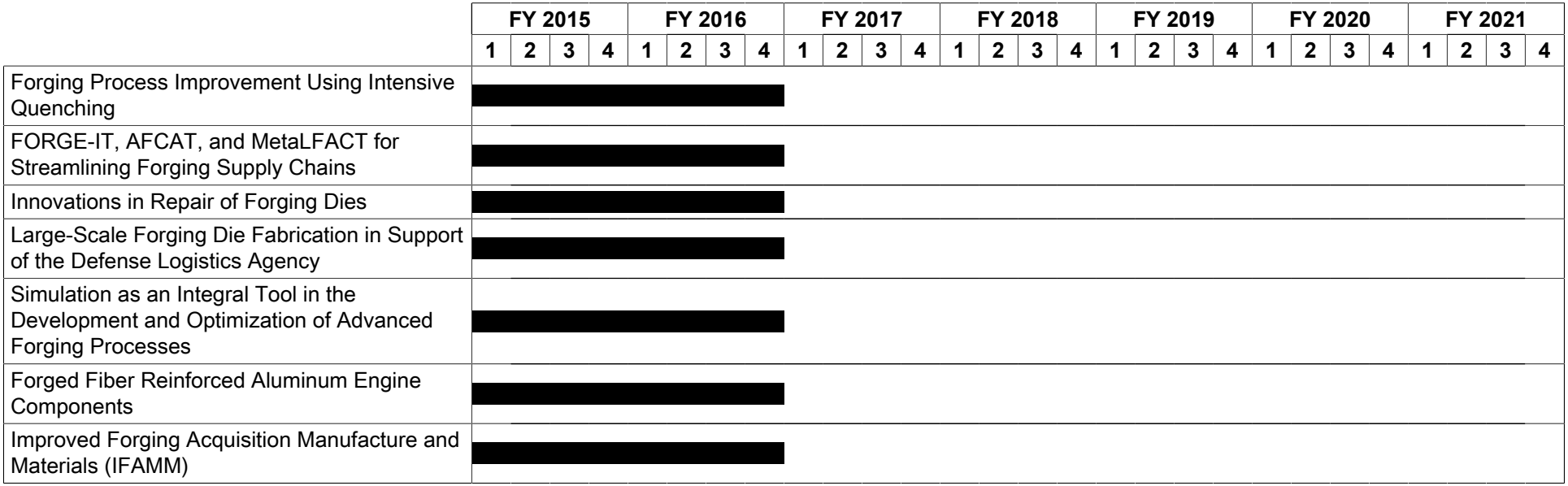


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 4 / *Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Forging Process Improvement Using Intensive Quenching	1	2015	4	2016
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	1	2015	4	2016
Innovations in Repair of Forging Dies	1	2015	4	2016
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	1	2015	4	2016
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	1	2015	4	2016
Forged Fiber Reinforced Aluminum Engine Components	1	2015	4	2016
Improved Forging Acquisition Manufacture and Materials (IFAMM)	1	2015	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 5 / *Material Acquisition Electronics (MAE)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
5: *Material Acquisition Electronics (MAE)*	46.844	11.552	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

Funding and technical work for the Material Acquisition Electronics (MAE) program has been reallocated to the High Quality Sources Strategic Focus Area. Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the Federal catalog using a single, flexible manufacturing line. DoD has estimated $2.9 billion is spent every five years redesigning circuit card assemblies. Many of these circuit card redesigns are performed to mitigate IC obsolescence. Commercial ICs have short Product Life Cycles (often only 18 months). IC Manufacturers subsequently move on to later generations of ICs, leaving little to no sources for their previous IC products. DoD maintains weapons systems much longer than IC lifecycles, resulting in an obsolescence problem. In order to avoid costs and potential readiness issues associated with buying/carrying excess inventories acquired before commercial availability ceases, or redesigning the next higher assembly to mitigate the obsolete IC, DLA (as the manager of 88% of the IC Federal Stock Class) must have the capability to manufacture needed IC devices.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Material Acquisition Electronics Accomplishments/Plans	11.552	0.000	0.000
FY 2015 Accomplishments: MAE has transitioned flexible NMOS/PMOS Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The first NSNs produced, support 42 weapon systems, including B-52, A-10, Arleigh Burke DDG, F-16, AWACS, F/A-18, & E/A-18; additional NSNs will be produced across the FYDP and beyond. MAE also made significant progress in the development of higher density Read-Only and Random-Access Memory, Advanced Emitter-Coupled Logic and Closed-Cell CMOS capabilities which, when transitioned into full-scale production, will further increase DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE also initiated new implementations including development of an Advanced Schottky TTL Capability. It will continue prototyping 350 nanometer emulation circuitry, bringing emulation capability that re-establishes sources for additional NSNs			
FY 2016 Plans: Funding and efforts associated with Material Acquisition Electronics has been moved to the High Quality Sources SFA for FY 16.			
FY 2017 Plans: Funding and efforts associated with Material Acquisition Electronics has been moved to the High Quality Sources SFA for FY 16.			
Accomplishments/Planned Programs Subtotals	11.552	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Competitively awarded R&D contract.

E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production. Each technology implementation increases the breadth of microcircuit part types which can be returned to a procurable status; improving readiness and avoiding the need to redesign at the next-higher level. Potential benefit to hundreds of weapon systems.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 5 / *Material Acquisition Electronics (MAE)*	

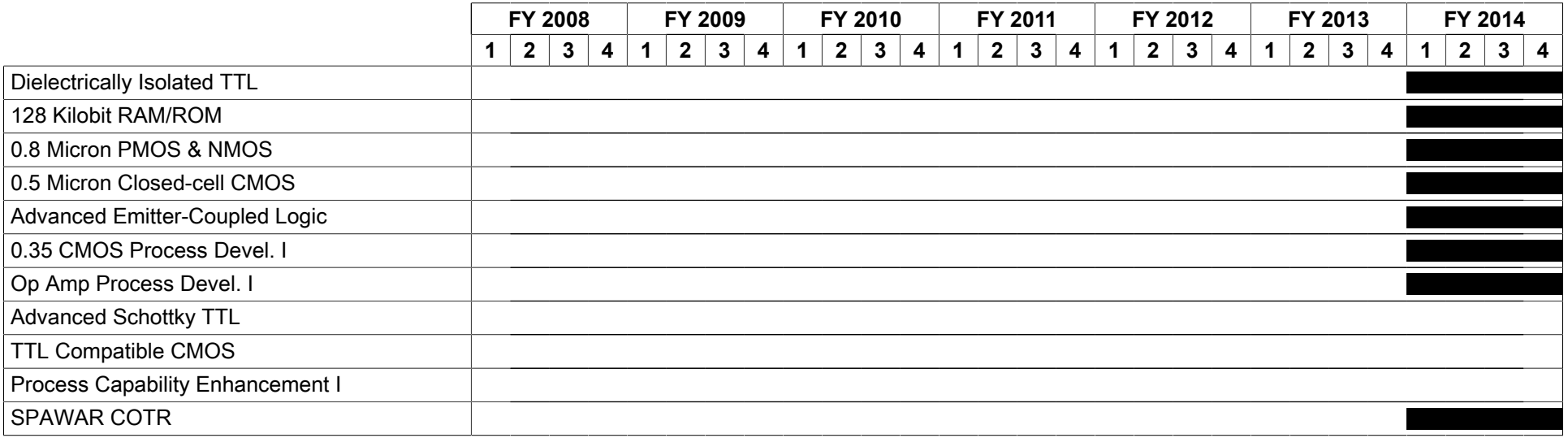
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Electronic Device Manufacturing Technology Process Development	C/CPFF	SRI International : CA	41.294	11.152	Nov 2014	0.000		-		-		-	-	-	-
Digital Electronic Device Manufacturing Technology Process Development SETA	MIPR	SPAWARSYSCEN San Diego : CA	5.550	0.400	Aug 2015	-		-		-		-	-	-	-
		Subtotal	46.844	11.552		0.000		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.844	11.552		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*



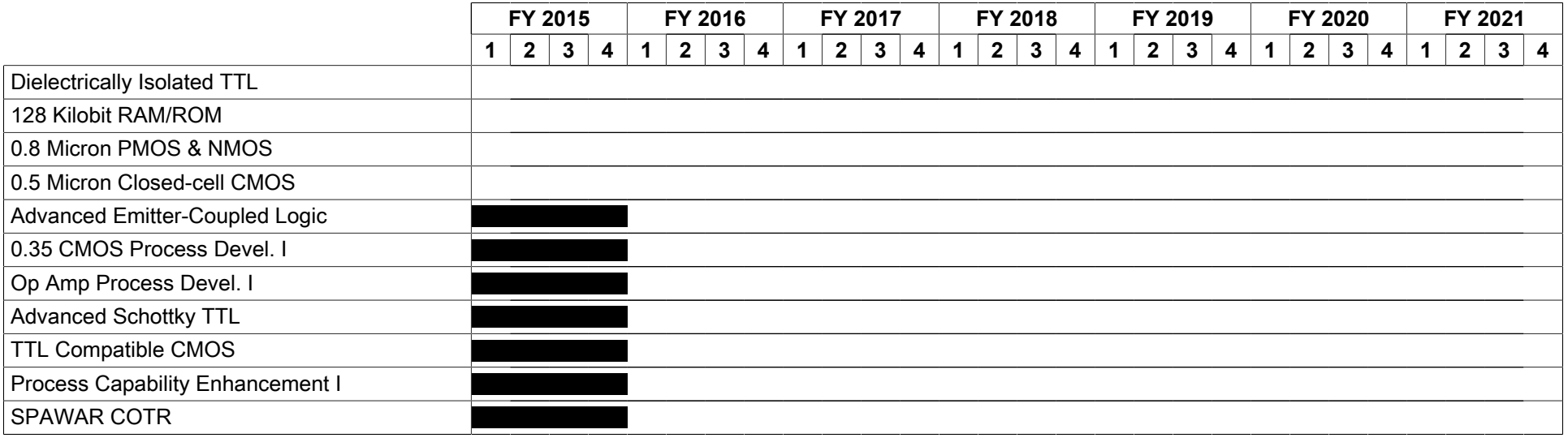


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 5 / *Material Acquisition Electronics (MAE)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Dielectrically Isolated TTL	1	2014	4	2014
128 Kilobit RAM/ROM	1	2014	4	2014
0.8 Micron PMOS & NMOS	1	2014	4	2014
0.5 Micron Closed-cell CMOS	1	2014	4	2014
Advanced Emitter-Coupled Logic	1	2014	4	2015
0.35 CMOS Process Devel. I	1	2014	4	2015
Op Amp Process Devel. I	1	2014	4	2015
Advanced Schottky TTL	1	2015	4	2015
TTL Compatible CMOS	1	2015	4	2015
Process Capability Enhancement I	1	2015	4	2015
SPAWAR COTR	1	2014	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 6 / *Battery Network (BATTNET)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
6: *Battery Network (BATTNET)*	6.343	1.969	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

BATTNET is focused on improving the supply and reducing the cost of procured batteries used in fielded weapon systems such as communication radios and armored vehicles. Batteries exhibit dynamic challenges for military logistics. BATTNET is a community of practice of battery supply chain members, engineering support activities, researchers, and users. BATTNET conducts R&D to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at $183M net value - compared to FY13 $176M and FY12 $216M.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Battery Network (BATTNET)	1.969	0.000	-
FY 2015 Accomplishments: R&D completed initial manufacturing technology short term projects supporting lithium-ion batteries for US Army LRAS3 Ground Sensor and US Navy MH-60 helicopter, and for lithium-ion zero-volt discharge capable cells. R&D initiated joint work with US Army AMCOM to replace obsolete nickel cadmium batteries on TOW2 system, initiated additional manufacturing technology cost/ risk reduction work on lithium-ion battery for MH-60 helicopter, and continued work on new non-solvent equipment for coating lithium-ion cathodes and anodes. All projects require executive approval with business case and transition plan. The program is also managing several SBIR projects expected to transition into BATTNET activities.			
FY 2016 Plans: Funding and efforts of the BATTNET program were transferred into the Improving Industrial Base Manufacturing Processes (formerly Material Availability) Strategic Focus Area.			
Accomplishments/Planned Programs Subtotals	1.969	0.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The BATTNET R&D partners were established by contract September 2009 through a competitive Broad Area Announcement (BAA) allowing for maximum competition. Partner Contracts were based upon proposals that demonstrated knowledge, experience, and expertise in the following areas of interest: Automation, Battery Maintenance, Competition & Contracting Requirements, Diminishing Manufacturing & Supply, Lithium Battery Safety, Reducing Acquisition Costs, Shelf Life, Supply Chain Logistics, Surge/Sustainment, and Technology Transition/Insertion. The BATTNET, which includes a Government Steering Group (GSG) of power source

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 6 / *Battery Network (BATTNET)*

technical experts from the military services R&D groups, is informed of general R&D requirements for supply chain improvement. The partners develop among themselves related R&D projects, which are then formally evaluated by the GSG. Selected projects are then chartered within DLA and planned for contract STP awards when funds are available. Additional projects were awarded to BATTNET partners from FY12 Industrial Base Innovation Fund (IBIF).

E. Performance Metrics

At least 30% of the completed projects will transition. The program achieved production readiness of lithium batteries that have more than two-times the energy capacity, three-times the shelf-life, and one-third of the weight compared to the batteries they replace.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
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Support ($ in Millions)

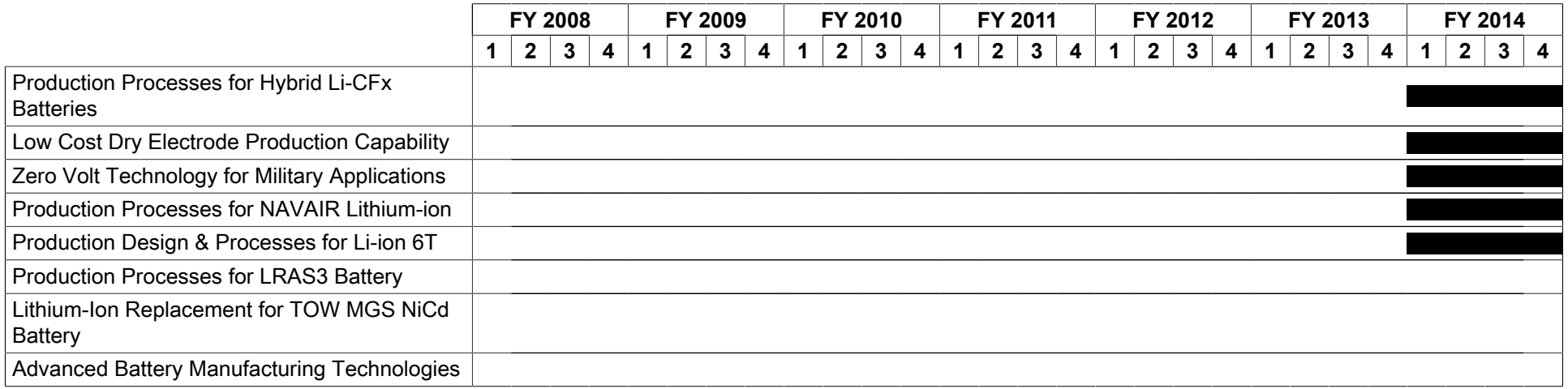
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Alion Science and Technology Corporation : IL	1.340	0.596	Jul 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/FFP	Eskra Technical Products Inc : WI	2.154	0.372	Dec 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	EaglePicher Technologies LLC : MO	0.438	0.015	Nov 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Quallion, LLC : CA	0.788	0.662	Nov 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Saft America Inc : MD	0.108	0.135	Mar 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Redblack Communications Inc : MD	0.440	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Logistics Management Institute : VA	0.258	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Navitas Systems : MI	0.308	-		-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	US Army : MI	0.509	0.010	Feb 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	US Navy : MD	0.000	0.021	Feb 2015	-		-		-		-	-	-	-
Advanced Military Battery Manufacturing Technology Process Development	C/CPFF	Rutgers, The State University of New Jersey : NJ	-	0.158	Dec 2015	-		-		-		-	-	-	-
		Subtotal	6.343	1.969		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 6 / *Battery Network (BATTNET)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.343	1.969		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 6 / *Battery Network (BATTNET)*



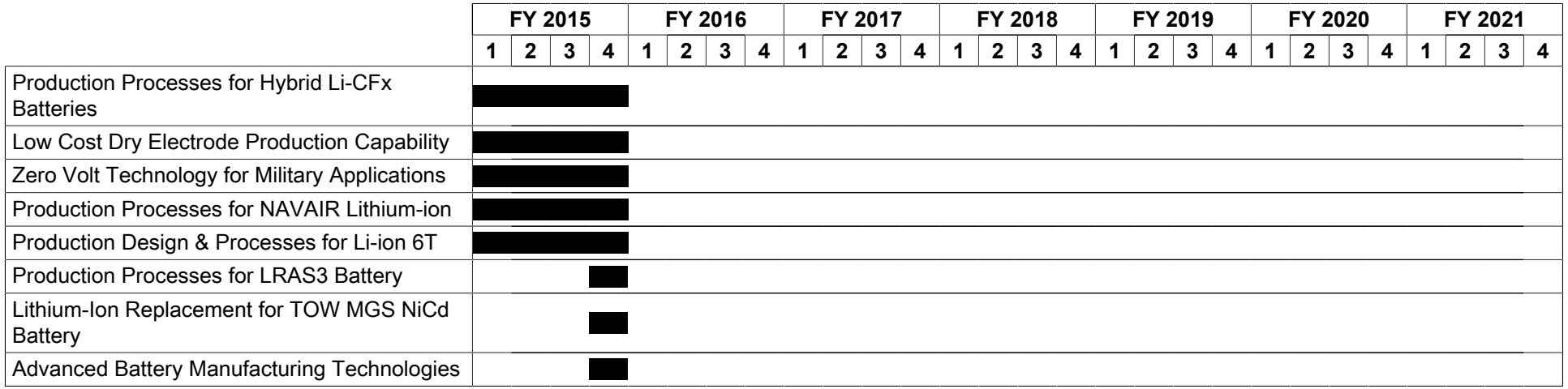


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Production Processes for Hybrid Li-CFx Batteries	1	2014	4	2015
Low Cost Dry Electrode Production Capability	1	2014	4	2015
Zero Volt Technology for Military Applications	1	2014	4	2015
Production Processes for NAVAIR Lithium-ion	1	2014	4	2015
Production Design & Processes for Li-ion 6T	1	2014	4	2015
Production Processes for LRAS3 Battery	4	2015	4	2015
Lithium-Ion Replacement for TOW MGS NiCd Battery	4	2015	4	2015
Advanced Battery Manufacturing Technologies	4	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
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COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
7: *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*	0.000	0.000	4.875	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 Material Availability (MA) Strategic Focus Area (SFA) are R&D efforts undertaken with DLA's industrial base to reduce material costs, reduce the length and variability of Production Lead-Times, assure the DLA managed products meet 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 strategic focus area includes within its scope the former Combat Rations Program, the Battery Program, the Castings and the Forgings programs.

This SFA is comprised of five roadmaps for Batteries, Subsistence Network, Castings, Forgings, and Additive Manufacturing.

The Battery network 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. The network conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at $183M net value - compared to FY13 $176M and FY12 $216M. The Battery network 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 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 Subsistence Supply Chain consists of military subsistence, which includes combat rations, field feeding equipment, garrison feeding and market fresh products. The Subsistence Network (SUBNET) program is a manufacturing technology program and is the successor to the Combat Rations R&D program. SUBNET's community of practice will 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. The desired outcomes of the current short-term projects Microwave Assisted Thermal Sterilization (MATS), MRE Alternate Chemical Laminate, Optimize Combat Ration Inspection Costs, and Combat Rations Shelf Life Temperature Monitoring Project include testing of low risk, high-impact technology and process improvements that will improve the quality of individual and group combat rations, reduce cost, and provide efficiencies, then transitioning these improvements to industrial base suppliers and government suppliers.

The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10%

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

are castings. 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 foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metalcasting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. 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 ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% 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 the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Additive Manufacturing (AM) objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA needs to exploit AM technology as a lead-time and inventory reduction enabler.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Industrial Base Manufacturing Processes (formally Material Availability)	-	4.875	0.000
FY 2016 Plans: The Subsistence Network (SUBNET) plans to identify and award new STPs through a Broad Agency Announcement (BAA) with an expected duration of 12-24 months and an average annual funding of $100K-$250K. The government plans to invest up to $18 million during Fiscal Years 2016-2021 for funding research in response to this BAA. Through the SUBNET STPs, research and development projects will be conducted and directed toward improving existing DLA processes and to improve manufacturing and delivery of combat rations and other subsistence products. Two of the STPs will be completed and transitioned in FY16. That is, the Microwave Assisted Thermal Sterilization (MATS) and the MRE Alternate Chemical Laminate Project. The Microwave Assisted Thermal Sterilization (MATS) goal is to reduce the cost of current combat ration entrees using MATS versus Retort, which is projected to be a 40% reduction in cost based on the energy savings per pouch of 50% MATS versus Retort. The cost reduction is projected to be higher when ration waste is considered as a result of poor reception of retorted ration entrees by the warfighters. For the project optimize combat rations inspection costs, the objective is to establish an inspection system that captures the cost of quality that includes inspection of incoming material, in-process and end item inspections. The baseline for inspection was established for two retort products and one assembled meal. Analytical testing protocols have been reassessed for two products leading to a 58% reduction in cost. The combat ration shelf life temperature monitoring through data loggers provided a method to monitor the temperature distribution in the warehouse where unitized group rations are stored. The project includes tasks to develop solution sets for an optimal method of determining the rate of the shelf life degradation of rations and contents and a method to convey information to the receiver of the product at time of shipment. A 9 F degree reduction in temperature was			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
achieved during the summer of 2015 as compared to 2014, leading to significant shelf life retention. The MRE Alternate Chemical Resistant Pouch Laminate will mitigate the risks in the material supply chain and establish reliable production for advanced pouch materials. Investments in these projects and future short-term projects will improve quality of individual and group combat rations, reduce costs, increase production, and provide efficiencies. The Castings consortium plan is to complete some existing projects towards the end of FY16 and into FY17. The new BAA will be released in FY16, with award(s) planned for 1st quarter FY17. Plan to complete new welding procedures and post-weld heat treatments to restore mechanical properties of the welded areas of Eglin Steel, a high strength steel, and hence its strength and integrity. The Forgings consortium plan is to continue working projects recently awarded in FY15. The Forging consortium will also pursue additional forging manufacturing advances from successful DLA SBIR projects selected in FY2014 using additional funds planned to begin in FY16. The Battery Network plan is to identify and award new Short Term Projects (STP) with an expected duration of 18-24 months and an average annual funding of $200K-$500K. Proposals are required to include a business case with specific metrics and transition plan for success. The Battery Network will also pursue additional battery manufacturing advances from successful DLA SBIR projects selected in FY2014. The Additive Manufacturing plan is for DLA to partner with the Military Services to use AM to produce parts. DLA and the Services will identify candidate parts, convert technical data to 3D format to facilitate AM, procure the parts, and document the process for AM benefits. The Services will review newly created technical data packages (TDP), test the parts, and qualify AM as an acceptable process to produce the parts. FY 16 – FY 20: Funding for Additive projects will be reallocated from other MA SFA thrusts and classified into the Additive Manufacturing Thrust. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	4.875	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

The Battery Network plan is to establish contract partners through a competitive Broad Area Announcement (BAA) based upon proposals that demonstrated knowledge, experience, and expertise in the following areas of interest: Automation, Diminishing Manufacturing & Supply, Battery Safety, Reducing Acquisition Costs, Shelf Life, Supply Chain Logistics, Surge/Sustainment, and Technology Transition/Insertion. A Government Steering Group (GSG) of power source technical experts from the military services R&D groups will inform general R&D requirements for supply chain and technology improvement. The plan also includes awarding Phase 2 and 3 projects from DLA's Small Business Innovation Research (SBIR) in advanced battery manufacturing technology.

The Subsistence Network acquisition strategy is delivery orders against competitively awarded IDIQ R&D contracts via the forthcoming BAA. The current contracts will reach the end of their base period of performance by December 2016. A new BAA has been drafted and will be released in January 2016 with award of contracts in FY16 and FY17. A Joint Steering Group made up of government representatives from the Military Services, DLA, U.S. Department of Agriculture, U.S. Public Health Center, and the Natick Soldier Research, Development and Engineering Center will review ongoing projects, identify new areas for investment, assess proposed projects, examine procedures and processes, keep abreast of new technologies, and understand DLA and DoD subsistence needs and requirements.

The Castings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and two contracts were awarded competitively September 2011. The current contracts reached the end of their base period of performance on September 30, 2016. A new BAA has been drafted and will be released in FY16 with award of contracts(s) in FY17.

The Forgings involved a competitive Broad Agency Announcement (BAA). Evaluations were completed and a contract awarded September 2014.

The Additive Manufacturing plan will partner with the Military Services and use organic and commercial AM parts production capabilities.

E. Performance Metrics

The Battery Network plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Subsistence Network plan is to execute reductions in cost for shipping, storage, supply chain process, inventory, waste and inspections, as well as reduced lead times for combat ration production, field feeding equipment, garrison feeding and "market fresh."

For example, SUBNET will provide the following technical achievements: 1) a microwave-assisted capability to sterilize group-sized entrees and components, packaged in Institutional Sized Pouches (ISP) and Polymeric Trays and 2) identify and produce at least one or more alternate sealant layers that can be used by the rations industry to pack high acidic food products and to ensure uninterrupted supply of MRE rations.

The Castings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
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The Forgings consortium plan is to report returns on investments and achievements to the Joint Defense Manufacturing Technology Panel (JDMTP) for evaluation.

The Additive Manufacturing metric is the number of parts qualified for AM and the lead-time savings achieved to make small quantities of items.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	Clemson University : SC	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Michigan State University : MI	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contracts Accounting : NJ	0.000	-		0.400	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	SOPAKO Inc : SC	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Illionois : IL	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	University of Tennessee : TN	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Washington State University : WA	0.000	-		0.301	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Cadillac Products Inc : MI	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Oregon Freeze Dry Inc : OR	0.000	-		0.020	Jun 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Research and Development Associates : TX	0.000	-		0.020	Jun 2016	-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology Development – Combat Rations	C/CPFF	The Wornick Company : AL	0.000	-		0.150	May 2016	-		-		-	-	-	-
Manufacturing Technology Development – Combat Rations	C/CPFF	Sterling Foods : TX	0.000	-		0.150	May 2016	-		-		-	-	-	-
Combat Rations - SETA	C/FP	Analytic Strategies LLC : VA	0.000	-		0.200	May 2016	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	0.000	-		2.015	Nov 2015	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Global Support Services LLC : AK	-	-		0.111	Mar 2016	-		-		-	-	-	-
Casting Manufacturing Technology Process Development	C/CPFF	Honeywell International Inc : AZ	-	-		0.050	Feb 2016	-		-		-	-	-	-
Forging Sustainment Manufacturing Technology Process Development	C/CPFF	Advanced Technology International : SC	-	-		1.078	Mar 2016	-		-		-	-	-	-
		Subtotal	0.000	-		4.875		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		4.875		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
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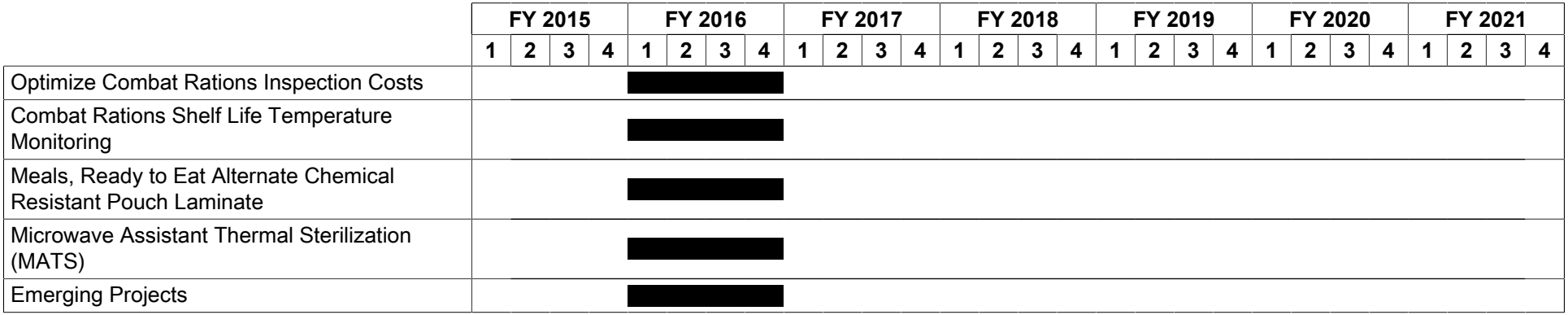

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 7 / *Improving Industrial Base Manufacturing Processes (formerly Material Availability)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Optimize Combat Rations Inspection Costs	1	2016	4	2016
Combat Rations Shelf Life Temperature Monitoring	1	2016	4	2016
Meals, Ready to Eat Alternate Chemical Resistant Pouch Laminate	1	2016	4	2016
Microwave Assistant Thermal Sterilization (MATS)	1	2016	4	2016
Emerging Projects	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
8: *Maintaining Viable Supply Sources (formerly High Quality Sources)*	0.000	0.000	12.373	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 High Quality Sources SFA are 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 former Material Acquisition Electronics program.

The Material Acquisition Electronics roadmap has four major thrusts in Digital Microcircuits: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. The Roadmap also includes a new major thrust area: Linear Microcircuits. 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 17 and beyond. Without the technologies planned on the MAE Roadmap, DLA will not be able to support DoD's requirements for high quality spare parts for critical electronic systems and subsystems.

The Strategic Materials roadmap is a new thrust for the DLA Mantech program. It is designed to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently process or recover strategic materials. Domestic capabilities can enhance national security and potentially reduce Defense Stockpile requirements.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Maintaining Viable Supply Sources (formally High Quality Sources)	-	12.373	0.000
FY 2016 Plans: MAE will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. MAE will complete development and transition higher density Read-Only and Random-Access Memory, Advanced Emitter-Coupled Logic and Closed-Cell CMOS capabilities into full-scale production further increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE will also initiate several new implementations including development of TTL-Compatible CMOS Emulation Capability. It will continue developing 350 nanometer Digital Emulation circuitry, bringing emulation capability that re-			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
establishes sources for additional NSNs. AME will also continue initial development and capability assessments to support a new major emulation thrust to support Linear Microcircuits beginning in FY2017. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	12.373	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

MAE efforts are incremental funding on a competitive awarded 5 year contract.

Strategic Materials efforts will be competitively evaluated and awarded using Broad Agency Announcement (BAA) procedures.

E. Performance Metrics

Transition of one technology implementation (base array) to low-rate initial production or full-scale production. Each technology implementation increases the breadth of microcircuit part types which can be returned to a procurable status; improving readiness and avoiding the need to redesign at the next-higher level. Potential benefit to hundreds of weapon systems.

Strategic Materials: Develop roadmap and transition targeted manufacturing technologies.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Electronic Device Manufacturing Technology Process Development	C/CPFF	SRI International : CA	0.000	-		11.973	Nov 2015	-		-		-	-	-	-
Digital Electronic Device Manufacturing Technology Process Development SETA	MIPR	SPAWAR : CA	0.000	0.000		0.400	Jun 2016	-		-		-	-	-	-
		Subtotal	0.000	0.000		12.373		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		12.373		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

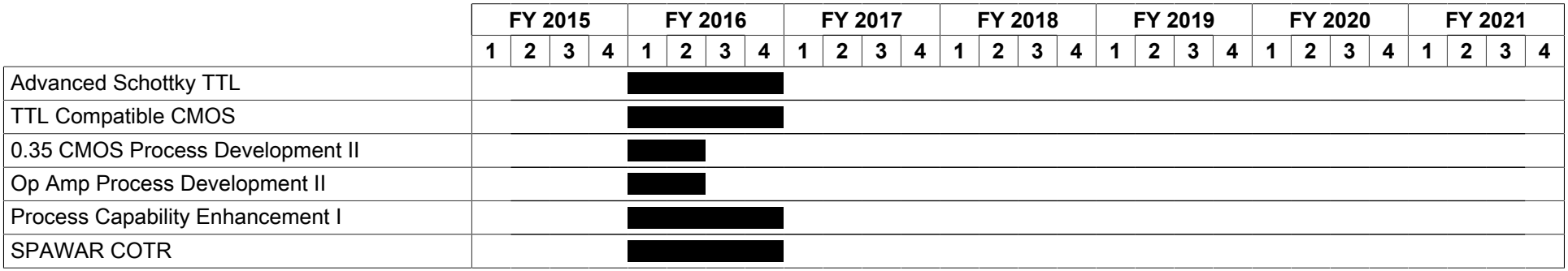

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 8 / *Maintaining Viable Supply Sources (formerly High Quality Sources)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Advanced Schottky TTL	1	2016	4	2016
TTL Compatible CMOS	1	2016	4	2016
0.35 CMOS Process Development II	1	2016	2	2016
Op Amp Process Development II	1	2016	2	2016
Process Capability Enhancement I	1	2016	4	2016
SPAWAR COTR	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9: *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	0.000	0.000	5.357	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 Improving Technical and Logistics Information Strategic Focus Area (SFA) projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) (P.E. 0603712S) within its scope. The movement of the DLIR related work from P.E. 0603712S to the DOD ManTech Program aligns the funding to the critical interface between DLA and industry and away from internal DLA operations.

The MUST focus addresses GAO Report 12-707 recommendations that DOD to establish a "knowledge-based approach" to collaborate on define and communicate of military unique requirements. DLA has the responsibility to communicate and manage 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 reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

The DLIR Model Based Enterprise effort will develop capabilities to systematically accept engineering and design data from the Military Services, validate and store item technical data in 3D models. There are two classes of data that must be addressed: newly designed parts for systems still in development and legacy parts for systems that are in sustainment. The problem with newly designed parts is capturing the complete and accurate designs. The legacy parts do not have digital engineering models which recreating the design in contemporary engineering systems.

The Technical and Logistical Data Interoperability will pioneer methods to capture data from military Services, Original Equipment Manufacturers (OEMs), and suppliers to form a seamless thread of interoperable and linked data models.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Improving Technical and Logistics Information (formally Industry and Customer Collaboration)	-	5.357	0.000
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
The MUST program will be beginning to stand up distributed pilots of the knowledge based approach. The project will develop and demonstrate a digital specification authoring tool, an automated piece-part design and 3D visualization tool, and technology to streamline the transition of requirements from the Services to DLA. MUST will show how DLA, its customers and suppliers can access, manage and share technical requirements in a common format. The DLIR MBE and data interoperability efforts will begin to extract info from product lifecycle management systems and link the data to specifications and standards via semantic data models and concepts. A new approach to distribution of specs and standards will be evaluated that enables industrial companies to have access to the precise specification requirement without having to extract it from the reference document. Testing the Model Based Enterprise (MBE) Conops developed in FY 15 with actual procurement using the standard supply system. Developing an automated process for strategic sourcing of cataloged products that are available from WWW sources. ***FY 2017 Plans:*** FY17 Fund Realignment from BA07 to BA03 PE 0603680S			
Accomplishments/Planned Programs Subtotals	-	5.357	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Delivery/Task Orders are awarded against a competitively awarded IDIQ contracts.

E. Performance Metrics

The metrics for ICC are error elimination in engineering and technical data, including omissions and uncertainties in specifications, streamlining vendor level of effort associated with completing procurements, and improved collaboration among the Services, DLA and the industrial base. The result will lead to reduced lead-time, inventory and to avoid the costs of defective material.

At least 30% of the completed projects will transition.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

OSD-C financial metrics (obligation and disbursement) will be achieved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	AdvanTech STP : MD	0.000	0.000		0.482	Feb 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Logistics Management Institute : VA	0.000	0.000	Jan 2016	1.765		-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	XSB STP : NY	0.000	0.000		0.481	May 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Clemson STP : SC	0.000	0.000		0.015	Jun 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	Modulant : VA	-	-		0.039	Nov 2015	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/FP	AR Services : VA	-	-		0.188	Feb 2016	-		-		-	-	-	-
Manufacturing Technology – Knowledge Based Individual Items and Equipment Development	C/CPFF	TBD : TBD	-	-		0.511	Sep 2016	-		-		-	-	-	-
Automatic Extraction of Product Lifecycle Management Data	C/CPFF	XSB Inc. : NY	-	-		1.876	May 2016	-		-		-	-	-	-
		Subtotal	0.000	0.000		5.357		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S / *Industrial Preparedness*	Project (Number/Name) 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*	

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		5.357		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

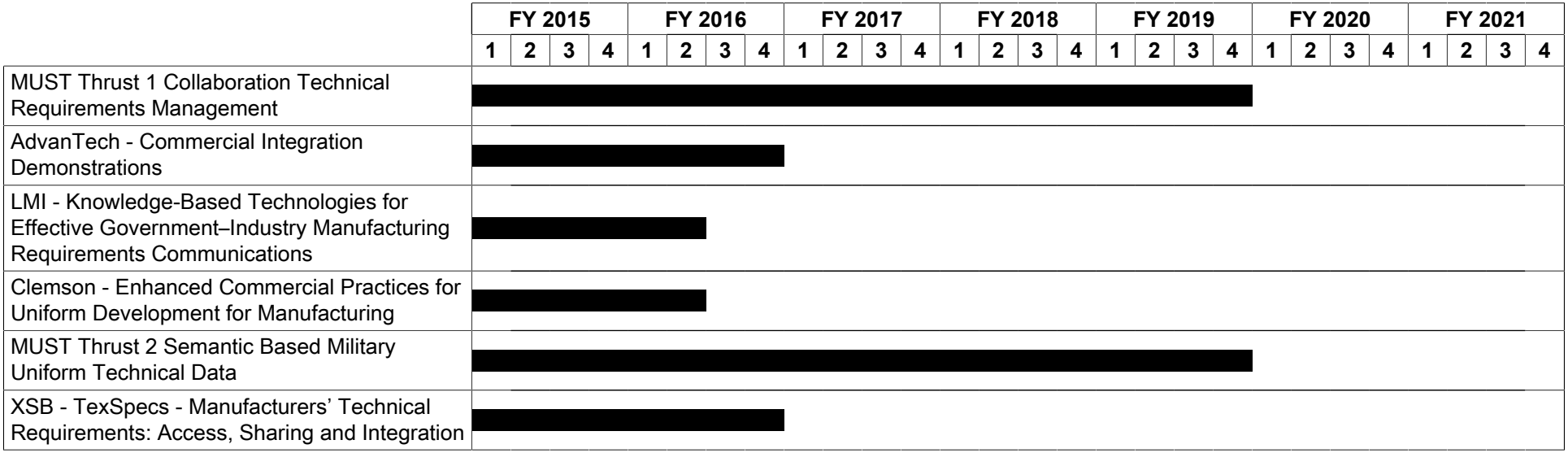

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708011S / *Industrial Preparedness*	**Project (Number/Name)** 9 / *Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MUST Thrust 1 Collaboration Technical Requirements Management	1	2015	4	2019
AdvanTech - Commercial Integration Demonstrations	1	2015	4	2016
LMI - Knowledge-Based Technologies for Effective Government–Industry Manufacturing Requirements Communications	1	2015	2	2016
Clemson - Enhanced Commercial Practices for Uniform Development for Manufacturing	1	2015	2	2016
MUST Thrust 2 Semantic Based Military Uniform Technical Data	1	2015	4	2019
XSB - TexSpecs - Manufacturers' Technical Requirements: Access, Sharing and Integration	1	2015	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	15.060	1.522	1.770	1.754	-	1.754	1.755	1.753	1.753	1.785	Continuing	Continuing
1: *Logistics Support Activities (LSA)*	12.488	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
2: *Pacific Disaster Center*	2.572	1.522	1.770	1.754	-	1.754	1.755	1.753	1.753	1.785	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, Technology, and Logistics) (OUSD(AT&L)) 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 hazard monitoring, early warning and decision support system, called RAPIDS, for the department. Logistics Support Activities (LSA) transferred to outside DLA in FY15.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	1.574	1.770	1.770	-	1.770
Current President's Budget	1.522	1.770	1.754	-	1.754
Total Adjustments	-0.052	0.000	-0.016	-	-0.016
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.052	-			
• Inflation for Non-Pay/Non-Fuel Purchases	-	-	-0.016	-	-0.016

Change Summary Explanation

In FY 17, funding was reduced due to inflation for non-pay and non-fuel purchases.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S / *Pacific Disaster Centers*	Project (Number/Name) 1 / *Logistics Support Activities (LSA)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Logistics Support Activities (LSA)*	12.488	0.000	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

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. The staff cognizance and oversight will transfer from the Defense Logistics Agency (DLA) to the Defense Information Systems Agency effective October 1, 2014. The USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff Assistant (PSA) for the program.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S / *Pacific Disaster Centers*	Project (Number/Name) 2 / *Pacific Disaster Center*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
2: *Pacific Disaster Center*	2.572	1.522	1.770	1.754	-	1.754	1.755	1.753	1.753	1.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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, Technology, and Logistics) (OUSD(AT&L)) 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). It has developed innovative technologies, and 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Pacific Disaster Center (PDC)	1.522	1.770	1.754

Description: 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. The USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff Assistant (PSA) for the program. USD(AT&L) will provide acquisition oversight authority for the program.

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. The Pacific Disaster Center (PDC) function, manpower, and budget resources transferred to the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) (OUSD(AT&L)) and the Defense Logistics Agency (DLA)in October 2011.

The USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff Assistant (PSA) for the program. 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 PDC Program Office's (USD(P), ASD(HD&GS), and DASD(DC&MA)) 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 Office develops and provides policy, oversight and guidance, and jointly develops strategic guidelines, programmatic content and

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*	**Project (Number/Name)** 2 / *Pacific Disaster Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017

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.

FY 2015 Accomplishments:

For the past 18 years, Pacific Disaster Center (PDC) has been at the forefront of improving disaster-reduction decision-support capabilities through the application of information, science and technology. PDC's products and services enhance foundational and global services supporting civil-military humanitarian assistance operations by the US Military and US agencies, state agencies, United Nation agencies, ASEAN, national governments, and International/Non-Governmental Organizations (I/NGO). Foundational and Global Services include projects supporting development, analysis, and delivery of relevant and actionable information. These activities fall into three categories: Global Information Services; Anticipatory Sciences and Socio-Economic Risk and Vulnerability Assessment; and Decision Support Platforms and Applications.

Emphasis areas in FY 2015 include:

- Implemented uniform communication, expanding operational utility of mobile applications
- Improved automated damage and needs assessment and other analytical reports
- Expanded bio/health related monitoring capabilities (in partnership with OSD and U.S. Navy).
- Continued to grow competitive grants and proposals as a mean to expand the center's capabilities, and leverage these new capabilities in support of DoD missions.
- Built capacity in stakeholder agencies through exercise and training, and enhance partnerships with USG agencies, their counterparts in key partner nations, and within I/NGOs to improve outcomes of HA/DR and related activities

FY 2016 Plans:

The Pacific Disaster Center (PDC) continues to be at the forefront of improving disaster-reduction decision-support capabilities through the application of information, science and technology. PDC's products and services enhance foundational and global services supporting civil-military humanitarian assistance operations by the US Military and US agencies, state agencies, United Nation agencies, ASEAN, national governments, and International/Non-Governmental Organizations (I/NGO). Foundational and Global Services include projects supporting development, analysis, and delivery of relevant and actionable information. These activities fall into three categories: Global Information Services; Anticipatory Sciences and Socio-Economic Risk and Vulnerability Assessment; and Decision Support Platforms and Applications.

Emphasis areas in FY 2016 include:

- Improve the simplified DisasterAWARE/RAPIDS user interface (a.k.a. "dashboard") for increased ease-of-use and situational awareness, while allowing the system to accommodate "low bandwidth" operational mode (enabling better support to mobile platforms, as well as, degraded communications)

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*	**Project (Number/Name)** 2 / *Pacific Disaster Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Extend and enhance mobile computing and situational awareness platform for DisasterAWARE/RAPIDS to include: a) limited "down range" data collection & sharing capabilities (e.g., damage photos, voice memos, etc.) b) investigate and implement degraded but functional/operational "off-grid" capabilities c) investigate and implement degraded but operational "low bandwidth" capabilities • Enhance DisasterAWARE's social media/network visualization capabilities, in collaboration with partners such as ONR-funded research in the subject matter • Extend and enhance Bio Surveillance capabilities in collaboration with Navy and Defense Threat Reduction Agency's (DTRA)Bio Surveillance Portal (BSP) Joint Program Executive Office • Extend collaboration with DTRA & other data providers in enhancing data fusion capabilities • Continue to emphasize and participate jointly- and externally-funded research and application programs to enhance the Center's capabilities and experiences which in turn can be operationalize and applied in direct support of DoD HA/DR and DSCA missions • Continue to grow competitive grants and proposals as a means to expand the center's capabilities, and leverage these new capabilities in support of DoD missions			
FY 2017 Plans: Risk and Vulnerability Assessment • Explore trends and shifts in risks and vulnerability using the last 7 years of data. Data • In accordance with the latest (DRAFT) DoD study for unclassified information systems for disaster preparedness, enhance development of standard protocols for interoperability. • Continue development of new data sources for hazards and related observational data TBD Modeling • Explore incorporating impacts from hazard models into the definition of disasters within the system. • Continue enhancing application of hazard models to estimating initial needs for HA/DR support missions Applications • Enhance RAPIDS functionality based on user feedback and requirements • Continue improving stabilization of the platform by increasing cloud-based utilization			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*	**Project (Number/Name)** 2 / *Pacific Disaster Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
• Continue evaluating new and innovative technologies for enhancing user experience (for RAPIDS)			
Accomplishments/Planned Programs Subtotals	1.522	1.770	1.754

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/EMOPS/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 communicates. Projects obtained and funded from this customer base serve as a means to determine PDC product and services relevancy.

E. Performance Metrics

Projects objectives and tasks are designed to build upon the previous year's successes and are consistent with the framework and direction provided by the 2012-2016 PDC Strategic Plan. At the beginning of each calendar year, an Annual Plan is in-place to guide the program and enable a framework for performance feedback to the DoD PDC Program Manager, the PDC Executive Director, WHS CA Contracting Office, and the UH. At the end of each calendar year, these stakeholders meet to review the past year performance and finalize a new Annual Plan for the next calendar year. This plan details a set of specific objectives to further capabilities and capacities supporting the PDC's mission and increasing operational value to the stakeholders.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S / *Pacific Disaster Centers*	Project (Number/Name) 2 / *Pacific Disaster Center*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PDC DisasterAWARE: Early Warning and Decision Support Applications	MIPR	University of Hawaii Systems : Honolulu, HI	2.572	1.522	Dec 2014	1.770	Dec 2015	1.754	Dec 2016	-		1.754	-	-	-
		Subtotal	2.572	1.522		1.770		1.754		-		1.754	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.572	1.522		1.770		1.754		-		1.754	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*	**Project (Number/Name)** 2 / *Pacific Disaster Center*

	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014			
	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
PDC																												
PDC																									[redacted]			

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
PDC																												
PDC	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012S / *Pacific Disaster Centers*	**Project (Number/Name)** 2 / *Pacific Disaster Center*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PDC				
PDC	1	2014	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Logistics Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	2.154	-	2.154	2.924	2.972	3.021	3.071	Continuing	Continuing
1: *DPAS*	-	0.000	0.000	2.154	-	2.154	2.924	2.972	3.021	3.071	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Property Accountability System (DPAS) provides the Department an 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, it is able to provide the Department an enterprise solution for asset management.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	2.849	-	2.849
Current President's Budget	0.000	0.000	2.154	-	2.154
Total Adjustments	0.000	0.000	-0.695	-	-0.695
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• SRRBs/U	-	-	-0.695	-	-0.695

Change Summary Explanation

In FY 2017, PE was reduced by $0.695M for Services Requirements Review Boards (SRRBs)/ Contractor Courts (U).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Logistics Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708047S / *Defense Property Accountability System (DPAS)*	Project (Number/Name) 1 / *DPAS*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *DPAS*	-	0.000	0.000	2.154	-	2.154	2.924	2.972	3.021	3.071	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DPAS system provides accountability and management functionality to the Department. The budgeted projects will provide enhancements to the existing capability, ensure efficient operability, and provide solutions for process gaps as they are discovered. The greater enhancements to DPAS allow the DoD to sunset legacy systems; DPAS assimilates the legacy functionality into the overall operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Release DPAS v 4	0.000	-	2.154
Description: Provide enhancements to the warehouse management functions; incorporate vehicle telematics; improve the data warehousing for transaction history. ***FY 2015 Accomplishments:*** N/A ***FY 2017 Plans:*** Provide enhancements to the warehouse management functions; incorporate vehicle telematics; improve the data warehousing for transaction history.			
Accomplishments/Planned Programs Subtotals	0.000	-	2.154

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

DPAS will ensure the obligations and expenditures are in line with OSD (Comptroller) guidance, as currently issued.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** 1 / *DPAS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DPAS version 4 development	C/CPIF	Contractor TBD : TBD	-	0.000		0.000		2.154	Mar 2016	0.000		2.154	-	-	-
		Subtotal	-	0.000		0.000		2.154		0.000		2.154	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.000		0.000		2.154		0.000		2.154	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** 1 / *DPAS*



Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Logistics Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708047S / *Defense Property Accountability System (DPAS)*	**Project (Number/Name)** 1 / *DPAS*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
N/A No Sub Projects	1	2008	1	2008

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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

Defense Security Cooperation Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	12,386	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 13:46:55

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	409						
Operational System Development	11,977	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572
Summary Recap of FYDP Programs							
Research and Development	12,386	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	409						
Operational System Development	11,977	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572
Summary Recap of FYDP Programs							
Research and Development	12,386	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Defense Security Cooperative Agency	12,386	10,510		10,510	9,572		9,572
Total Research, Development, Test & Evaluation	12,386	10,510		10,510	9,572		9,572

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 13:46:55

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

01 Feb 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
157	0605502T	Small Business Innovative Research	06	409							U
		Management Support		409							
182	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	1,694	1,750		1,750	1,424		1,424	U
183	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	275	294		294	287		287	U
186	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	10,008	8,466		8,466	7,861		7,861	U
		Operational System Development		11,977	10,510		10,510	9,572		9,572	
		Total Research, Development, Test & Eval, DW		12,386	10,510		10,510	9,572		9,572	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 1, 2016 at 13:46:55

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
182	07	0605127T	Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)	Volume 5 - 537
183	07	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	Volume 5 - 545
186	07	0607327T	Global Theater Security Cooperation Management information Systems (G-TSCMIS)	Volume 5 - 553

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

Program Element Title	Program Element Number	Line #	BA	Page
Global Theater Security Cooperation Management information Systems (G-TSCMIS)	0607327T	186	07	Volume 5 - 553
Overseas Humanitarian Assistance Shared Information System (OHASIS)	0605147T	183	07	Volume 5 - 545
Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)	0605127T	182	07	Volume 5 - 537

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0605127T *I Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	10.351	1.694	1.750	1.424	-	1.424	1.871	1.855	1.792	1.828	Continuing	Continuing
000000: *Regional International Outreach - Partnership for Peace Information Management Systems*	10.351	1.694	1.750	1.424	-	1.424	1.871	1.855	1.792	1.828	Continuing	Continuing

A. Mission Description and Budget Item Justification

Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS), is an Office of the Secretary of Defense (OSD) initiative. The focus of the program is 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 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, PfP and international partners, other DoD educational institutions and communities. GlobalNET currently support over 60,000 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, the DSCA, OUSD (Policy), 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 a 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 supports internet-based education, collaboration, exercise simulations, and training center requirements.

The Regional Centers Person/Activity Management System (RCPAMS) provides an integrated student and activities management framework that was designed to complement the capabilities of the Security Assistance Network (SAN). The sharing of data between the SAN, RCPAMS, and GlobalNET provides faculty and students an effective information service to ensure student, activity, and alumni management. Information will be shared between the systems improving data integrity.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0605127T *I Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	1.694	1.750	1.750	-	1.750
Current President's Budget	1.694	1.750	1.424	-	1.424
Total Adjustments	0.000	0.000	-0.326	-	-0.326
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rephasing	0.000	0.000	-0.326	-	-0.326

Change Summary Explanation

FY 2015 - 2017: POCS requires funds to: research and implement the learning management module identified as required from multiple user communities; complete the accreditation and implementation of the Risk Management Framework (RMF) process to support the DSCA CIO and to acquire a GIG waiver package as the system was moved to a FEDRAMP certified cloud hosting facility; to research the computer human interface (CHI) ensuring it is closely aligned with the stakeholder workflow; migrate the technology from a Drupal 6 to Drupal 7 code base reducing security vulnerabilities and making system extensions less costly to perform and maintain; and research the potential to deploy a native video teleconference (VTC) capability to replace the existing Adobe connect

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
000000: *Regional International Outreach - Partnership for Peace Information Management Systems*	10.351	1.694	1.750	1.424	-	1.424	1.871	1.855	1.792	1.828	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS), is an Office of the Secretary of Defense (OSD) initiative. The focus of the program is 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 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, PfP and international partners, other DoD educational institutions and communities. GlobalNET currently support over 60,000 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 2015	FY 2016	FY 2017
Title: Partner Outreach and Collaboration Support (POCS)	1.694	1.750	1.424
FY 2015 Accomplishments: Add redundant/additional user capacity. This includes expanding the hardware and software to an alternate site to allow additional users to access and use the system concurrently and be a backup site in the event of a disaster or failure. Because of all of the advanced graphics and expansion of the user base, it is expected that we will need this additional capacity and the best plan to distribute it out to an alternate location. Ensure that discovery is much easier including adding the capability to refine search results using a keyword based refinement methodology. The amount of data the system will be collecting dictates greater refinement of the search results. In addition, build the capability to allow the users to refine the data by multiple folders. Re-engineer the security model to allow much greater granular permission on functions. The current model does not allow permissions down to the activity level and that is need as more users are starting to restrict access to functions.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Re-engineer the email integration capabilities. Put more control on the content of sent emails and well as greater capabilities to receive emails and incorporated them into the system as natively entered data elements. ***FY 2016 Plans:*** Add redundant/additional user capacity. This includes expanding the hardware and software to an alternate site to allow additional users to access and use the system concurrently and be a backup site in the event of a disaster or failure. Because of all of the advanced graphics and expansion of the user base, it is expected that we will need this additional capacity and the best plan to distribute it out to an alternate location. ***FY 2017 Plans:*** Continue with the existing platform managers to update the GlobalNET implementation to the newest platform stable release - allowing greater functionality and better security across all members of the platform. Recertify the security accreditation process which also reflects the new and updated software capabilities as well newly integrated educational organizations. Conduct the research and define the requirements for a gaming and exercise simulation module.			
Accomplishments/Planned Programs Subtotals	1.694	1.750	1.424

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

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 a regional approach to ensure sustainable, leave-behind 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. GlobalNET has regional based personnel to assist partners who are not familiar with social collaboration and networking media. RCPAMS uses a similar spiral, testing, and fielding approach.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*

E. Performance Metrics

POCS development performance is measured in several methods: the successful meeting of stated performance objectives in the statement of work, and meeting target dates in the project management plan; via a combination of statistics including the number of trouble tickets generated on the development site, operational user feedback on development site usability, and design; and the system's performance during developmental and operational testing. The use of a 3rd party to execute the operational test ensures that the system meets the performance metrics prior to moving to production.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*

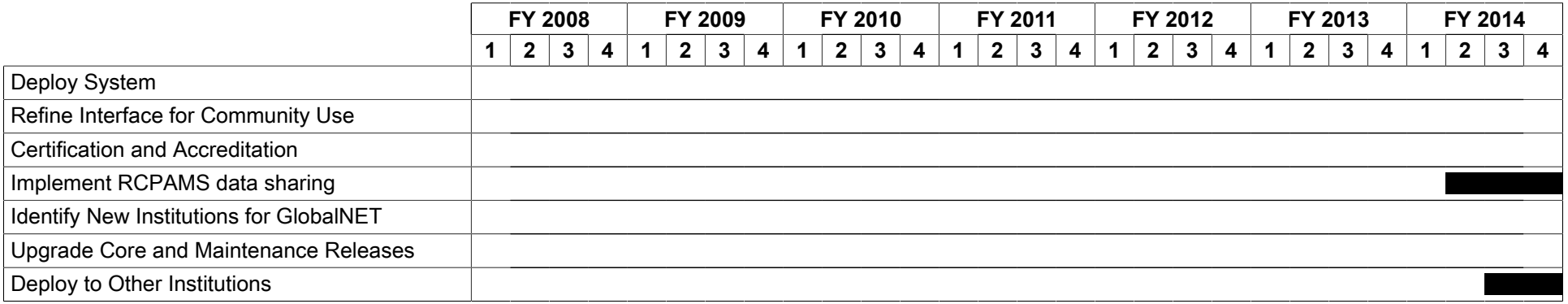
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Security Cooperation Agency	MIPR	Civic Actions : Berkeley, CA	10.351	1.694	Jul 2015	1.750		1.424		-		1.424	Continuing	Continuing	-
		Subtotal	10.351	1.694		1.750		1.424		-		1.424	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.351	1.694		1.750		1.424		-		1.424	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*



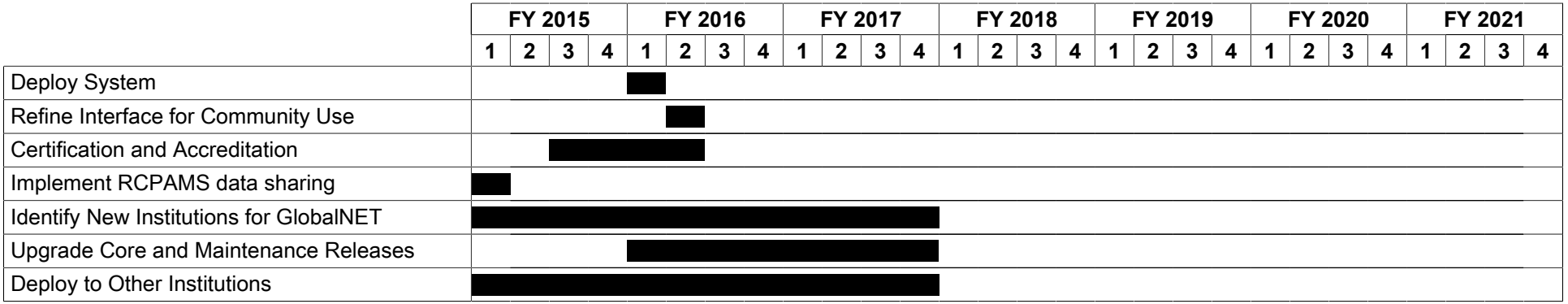


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605127T / *Partner Outreach and Collaboration Support (POCS); formerly: Regional International Outreach (RIO) - PfP Information Management System (PIMS)*	**Project (Number/Name)** 000000 / *Regional International Outreach - Partnership for Peace Information Management Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Deploy System	1	2016	1	2016
Refine Interface for Community Use	2	2016	2	2016
Certification and Accreditation	3	2015	2	2016
Implement RCPAMS data sharing	2	2014	1	2015
Identify New Institutions for GlobalNET	1	2015	4	2017
Upgrade Core and Maintenance Releases	1	2016	4	2017
Deploy to Other Institutions	3	2014	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	1.129	0.275	0.294	0.287	-	0.287	0.298	0.308	0.304	0.309	Continuing	Continuing
000204: *Overseas Humanitarian Assistance Shared Information System*	1.129	0.275	0.294	0.287	-	0.287	0.298	0.308	0.304	0.309	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Overseas Humanitarian Assistance Shared Information System (OHASIS) provides stakeholders of DoD Humanitarian Assistance (HA) programs, including embassy staff, the Combatant Commands, the Defense Security Cooperation Agency (DSCA), and a broad range of Department of Defense 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 2.3 system, which contains more than 15,000 active projects (6,000 of which have been completed) valued at more than $2.1 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 Combatant Commands in accomplishing theater campaign plan objectives and achieve strategic ends states in support of U.S. national security and foreign policy interests.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.275	0.294	0.299	-	0.299
Current President's Budget	0.275	0.294	0.287	-	0.287
Total Adjustments	0.000	0.000	-0.012	-	-0.012
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rephasing	0.000	0.000	-0.012	-	-0.012

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0605147T *I Overseas Humanitarian Assistance Shared Information System (OHASIS)*

Change Summary Explanation

FY15-17: No significant change, the increase or decrease is a small inflation amount. The Overseas Humanitarian Assistance Shared Information System requires $.3M to continue to provide web-based lifecycle management of Humanitarian Assistance projects to the Combatant Commands.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
000204: *Overseas Humanitarian Assistance Shared Information System*	1.129	0.275	0.294	0.287	-	0.287	0.298	0.308	0.304	0.309	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Overseas Humanitarian Assistance Shared Information System (OHASIS) provides stakeholders of DoD Humanitarian Assistance (HA) programs, including embassy staff, the Combatant Commands, the Defense Security Cooperation Agency (DSCA), and a broad range of Department of Defense 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 2.3 system, which contains more than 15,000 active projects (6,000 of which have been completed) valued at more than $2.1 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 Combatant Commands in accomplishing theater campaign plan objectives and achieve strategic ends states in support of U.S. national security and foreign policy interests.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Overseas Humanitarian Assistance Shared Information System	0.275	0.294	0.287
FY 2015 Accomplishments: Launching the One-Year After Action Reporting capability on the production system. Developing and implementing a new search tool that leverages project steps and phases logic Improved search including viewing image thumbnails, POC List and Gantt charts. Added ability to generate PDFs of project details of multiple projects. Updated Drilldown Report that leverages project steps and phases. Added Google-like search of text in OHASIS projects			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Developing maps to precisely locate inventory in the three excess property warehouses and improve reporting capability. Launched beta version mobile-based (handheld) web capability to upload project photos taken with cell phone cameras. ***FY 2016 Plans:*** Develop and implement strategy to launch OHASIS version 2.5 which will transfer OHASIS production hosting to a Federal Risk and Authorization Management Program (FedRAMP) cloud-based hosting infrastructure. Develop aggregate reporting capability for After Action Reports (AARs). Develop and launch a new mapping tool that will have more features and be compatible with mobile operating systems including Apple's iOS. Assess low-bandwidth requirements and develop strategy to implement a corresponding version of OHASIS, as warranted. ***FY 2017 Plans:*** Develop and launch low-bandwidth version of OHASIS that provides basic program tools (view only, task response, reports, minimal editing). Improve usability of project nomination and explore software optimization techniques to reduce load times and improve user experience. Develop software infrastructure for CAC-enabled capability (full OHASIS or limited capability) contingent on evolving access requirements. Continue to find more efficient ways of integrating with other systems including Pacific Disaster Center, REDi, Cooperation Security JCTD, GTSCMIS, USAID, CAOS, Foreign Assistance Dashboard, MARCIMs, etc.			
Accomplishments/Planned Programs Subtotals	0.275	0.294	0.287

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*

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.

E. Performance Metrics

OHASIS project performance is measured in several methods: the successful meeting of stated performance objectives in the statement of work and meeting target dates in the project management plan, and successful management of the full life cycle of the over 1,000 Overseas Humanitarian Disaster and Civic Aid (OHDACA) projects.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Geospatial Research Integration Develoopment and Support (GriDS) II, IDIQ	MIPR	SAIC : Alexandria, VA	1.129	0.275		0.294		0.287		-		0.287	Continuing	Continuing	Continuing
		Subtotal	1.129	0.275		0.294		0.287		-		0.287	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.129	0.275		0.294		0.287		-		0.287	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*

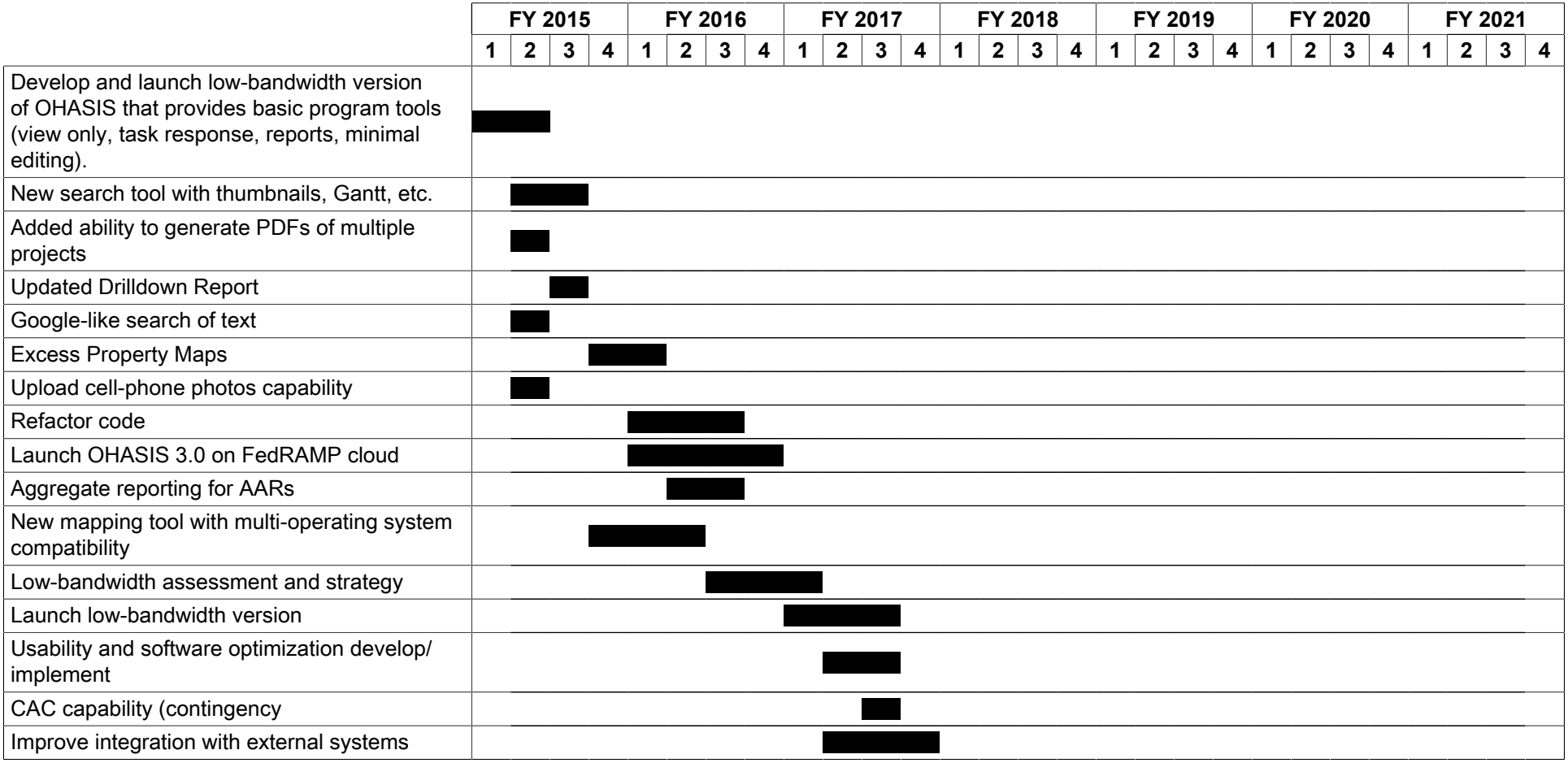


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0605147T / *Overseas Humanitarian Assistance Shared Information System (OHASIS)*	**Project (Number/Name)** 000204 / *Overseas Humanitarian Assistance Shared Information System*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Develop and launch low-bandwidth version of OHASIS that provides basic program tools (view only, task response, reports, minimal editing).	1	2015	2	2015
New search tool with thumbnails, Gantt, etc.	2	2015	3	2015
Added ability to generate PDFs of multiple projects	2	2015	2	2015
Updated Drilldown Report	3	2015	3	2015
Google-like search of text	2	2015	2	2015
Excess Property Maps	4	2015	1	2016
Upload cell-phone photos capability	2	2015	2	2015
Refactor code	1	2016	3	2016
Launch OHASIS 3.0 on FedRAMP cloud	1	2016	4	2016
Aggregate reporting for AARs	2	2016	3	2016
New mapping tool with multi-operating system compatibility	4	2015	2	2016
Low-bandwidth assessment and strategy	3	2016	1	2017
Launch low-bandwidth version	1	2017	3	2017
Usability and software optimization develop/implement	2	2017	3	2017
CAC capability (contingency	3	2017	3	2017
Improve integration with external systems	2	2017	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	13.250	10.008	8.466	7.861	-	7.861	14.450	13.350	11.907	12.147	Continuing	Continuing
1: *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	13.250	10.008	8.466	7.861	-	7.861	14.450	13.350	11.907	12.147	Continuing	Continuing

A. Mission Description and Budget Item Justification

Global Theater Security Cooperation Management information System (G-TSCMIS) Program is 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. G-TSCMIS will consolidate, improve upon, and replace legacy TSCMIS solutions hosted at over 20 Department of Defense (DoD) Services, Agencies, and Combatant Commands (CCDRs). It will provide a comprehensive picture of whole-of-government SC activities, and will contribute to planning more effective cooperative security activities to align or meet desired outcomes in support of SC end states. The program is an evolutionary rapid Information Technology (IT) acquisition pilot program, as described in FY 2010 National Defense Authorization Act (NDAA) Section 804, that provides users at every user command with greater capability through several iterations and releases that are developed and implemented over time. The Department of Navy (DoN) was assigned acquisition lead for the effort by Deputy Secretary of Defense (DEPSECDEF).

G-TSCMIS is a fully interoperable component of Adaptive Planning and Execution (APEX) and the DoD Joint C2 (JC2) Capability. The effort will support the strategic planning of CCDRs by providing access to reports of programs, activities, events, funding, assessments, and status of achieving defined end states. G-TSCMIS will provide visualization, assessment, reporting, and data management throughout the conduct of SC activities planning and execution phases. Information from the SC activities will be binned by separate SC programs, budget lines/funding streams, equipment drawdown, etc. This will enable users at the tactical level to focus on specific programs, participating forces, events, and activities, while users at the strategic level will be able to access summary reports of geographic regions, resource requirements, or total expenditure of funds by source. G-TSCMIS support to DoD's SC reporting requirements is mandated by federal law for many SC programs and activities. To adhere to U.S. regulations, G-TSCMIS reports will be tailored to include programs, events, and activities by category, geographical areas, assessments, U.S. staffing levels, and sources of funding.

G-TSCMIS will interface with other systems, such as Joint Training Information Management System (JTIMS), Overseas Humanitarian Assistance Shared Info System (OHASIS), and Global Force Management - Data Initiative (GFM-DI). G-TSCMIS must also be interoperable with the other United States Government (USG) foreign assistance and international cooperation information systems. G-TSCMIS will allow decision makers and analysts to identify redundant investments, plan more effective engagements, and find gaps and opportunities for building more capable partners. The program uses multiple, rapidly executed releases of capability beginning with a Milestone B equivalent initial build decision held in Quarter 1 FY 2012, which resulted in approval from the Milestone Decision Authority (MDA) to enter the Incremental and Iterative Development and Deployment (IIDD) phase. The initial releases require defined objectives and mature technology. Based on analysis of

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Cooperation Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607327T *I Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

required capabilities and resources, the Program Office is planning on executing G-TSCMIS in four major releases, each with three iterations (except Release 4), across the period of FY 2012-FY 2018.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	10.008	8.466	12.328	-	12.328
Current President's Budget	10.008	8.466	7.861	-	7.861
Total Adjustments	0.000	0.000	-4.467	-	-4.467
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rephasing	0.000	0.000	-4.467	-	-4.467

Change Summary Explanation

FY2015: $500K realigned to O&M sustainment support

The FY17 funds has been rephased to better align with expected contract support and release timelines.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	Project (Number/Name) 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
1: *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	13.250	10.008	8.466	7.861	-	7.861	14.450	13.350	11.907	12.147	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global Theater Security Cooperation Management information System (G-TSCMIS) Program is 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. G-TSCMIS will consolidate, improve upon, and replace legacy TSCMIS solutions hosted at over 20 Department of Defense (DoD) Services, Agencies, and Combatant Commands (CCDRs). It will provide a comprehensive picture of whole-of-government SC activities, and will contribute to planning more effective cooperative security activities to align or meet desired outcomes in support of SC end states. The program is an evolutionary rapid Information Technology (IT) acquisition pilot program, as described in FY 2010 National Defense Authorization Act (NDAA) Section 804, that provides users at every user command with greater capability through several iterations and releases that are developed and implemented over time. The Department of Navy (DoN) was assigned acquisition lead for the effort by Deputy Secretary of Defense (DEPSECDEF).

G-TSCMIS is a fully interoperable component of Adaptive Planning and Execution (APEX) and the DoD Joint C2 (JC2) Capability. The effort will support the strategic planning of CCDRs by providing access to reports of programs, activities, events, funding, assessments, and status of achieving defined end states. G-TSCMIS will provide visualization, assessment, reporting, and data management throughout the conduct of SC activities planning and execution phases. Information from the SC activities will be binned by separate SC programs, budget lines/funding streams, equipment drawdown, etc. This will enable users at the tactical level to focus on specific programs, participating forces, events, and activities, while users at the strategic level will be able to access summary reports of geographic regions, resource requirements, or total expenditure of funds by source. G-TSCMIS support to DoD's SC reporting requirements is mandated by federal law for many SC programs and activities. To adhere to U.S. regulations, G-TSCMIS reports will be tailored to include programs, events, and activities by category, geographical areas, assessments, U.S. staffing levels, and sources of funding.

G-TSCMIS will interface with other systems, such as Joint Training Information Management System (JTIMS), Overseas Humanitarian Assistance Shared Info System (OHASIS), and Global Force Management - Data Initiative (GFM-DI). G-TSCMIS must also be interoperable with the other United States Government (USG) foreign assistance and international cooperation information systems. G-TSCMIS will allow decision makers and analysts to identify redundant investments, plan more effective engagements, and find gaps and opportunities for building more capable partners. The program uses multiple, rapidly executed releases of capability beginning with a Milestone B equivalent initial build decision held in Quarter 1 FY 2012, which resulted in approval from the Milestone Decision Authority (MDA) to enter the Incremental and Iterative Development and Deployment (IIDD) phase. The initial releases require defined objectives and mature technology. Based on analysis of

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

required capabilities and resources, the Program Office is planning on executing G-TSCMIS in five major releases, each with three iterations, across the period of FY 2012-FY 2021.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Global Theater Security Cooperation Management Information System (G-TSCMIS)	10.008	8.466	7.861
FY 2015 Accomplishments: Completed development of Release 2 software, including contractor and government testing for Iteration 3. Deployed Release 2 Iteration 3 software at the two data centers. Held Release 3 Build Decision and awarded contract for Release 3 software development to commence development of new capabilities. Release 3 Iteration 2 will provide an updated user interface making the system more user friendly and intuitive allowing users to input data in a more efficient manner. Continued collaboration efforts with Joint Staff (JS) J6 to finalize all Release 4 function functional and architectural requirements in support of conducting Release 4 Build Decision. Initiated revision of appropriate acquisition documentation to support this future Build Decision. Governance council agreed to consolidated releases 4 and 5 which accelerates FOC schedule approximately 18 months ahead of schedule with an approximate cost savings of $2.9M.			
FY 2016 Plans: Continue development of Release 3 software. This will include CSITs for Iterations 1 and 2, and user community participation. Conduct/complete government IV&V testing, IA testing, and IT with operational test agency participation for risk reduction. User stories and scenarios will be developed to support testing. As each software iteration is tested and verified, installation of that iteration with all necessary IA and maintenance fixes to G-TSCMIS software will be conducted at the two data centers for operational use. Develop new training guides and courseware to reflect major upgrades to G-TSCMIS user interface in Release 3 Iteration 2. Complete efforts with JS J6 to finalize all Release 4 functional and architectural requirements in support of the Release 4 Build Decision and define contract strategy for software development of remaining requirements.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Finalize applicable contracting documentation to support the Release 4 Request for Proposal (RFP) and begin source selection activities. ***FY 2017 Plans:*** Complete development and fielding of Release 3 software and begin development and fielding of Release 4 software after contract award. This will include contractor, government and user community testing. User stories and scenarios will be developed to support testing. Complete source selection activities for Release 4 software development and conduct Release 4 Build Decision to commence development of new capabilities. Applicable acquisition, training, and contractual documentation to be updated and finalized to support Release 3 Fielding Decision and training efforts, Release 4 Build Decision, and contract award efforts.			
Accomplishments/Planned Programs Subtotals	10.008	8.466	7.861

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 0605104D8Z: *Technical Studies*	0.000	0.000	0.000	-	0.000	0.000	-	-	-	Continuing	Continuing

Remarks

FY 2013 funding was in Office of Secretary of Defense AT&L Budget in Program Element 0605104D8Z- Technical Studies.

D. Acquisition Strategy

G-TSCMIS will follow the Rapid IT Acquisition approach as detailed in Section 804 of the 2010 National Defense Authorization Act (NDAA). G-TSCMIS will initiate an evolutionary and iterative development process for a software-only solution using multiple, rapidly executed releases of capability beginning with a Build Decision in FY2012 and enter the Incremental and Iterative Development and Deployment (IIDD) phase. Once fielded and operational on both NIPR and SIPR, users will access G-TSCMIS over a web browser with information on a centralized server. The development period is planned for FY 2012 through FY 2020. G-TSCMIS contracting used fair opportunity competitive procedures on the Indefinite Delivery Indefinite Quantity (IDIQ) MAC for Releases 1 and 2, and fair and open competition for the Release 3 contract. Barriers to competition were minimized by using performance and functional specifications and equivalent commercial standards. Releases 4 and 5 will continue to be completed by separate contract(s). Either another IDIQ MAC or MACs will be used or a new contract or contracts will be created for the final two releases.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

E. Performance Metrics

G-TSCMIS performance is measured in several outcome-based methods. The JC2 Capability Definition Package produced by JS J6 defines the Key Performance Parameters (KPP) and Key System Attributes (KSA) to be met. JS J6 also approved specific Measures of Effectiveness and Measures of Performance (MOE/MOP), establishing thresholds and objectives for G-TSCMIS software to meet. Successful meeting of stated performance objectives in the statement of work, and meeting cost, schedule and performance targets as defined in the G-TSCMIS Acquisition Program Baseline are key metrics for the program. The use of participating Service Operational Test Agencies to perform operational testing ensures G-TSCMIS meets the performance metrics prior to making the software operational. Additional statistics-based metrics, trouble tickets logged by the Service Desk, operational user feedback and IV&V and Developmental tests validate system performance. Major Performers: Science Applications International Corporation (SAIC) for Release 1, 2 and 3 software development.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	MIPR	SSC LANT : Charleston, SC	13.250	2.495	Dec 2014	2.061	Dec 2015	0.999	Dec 2016	-		0.999	Continuing	Continuing	-
Software Development	C/CPIF	Leidos : Reston, VA	-	5.231	Dec 2014	4.528	Dec 2015	3.817	Dec 2016	-		3.817	Continuing	Continuing	-
Systems Engineering	MIPR	MITRE : San Diego	-	0.203	Dec 2014	0.168	Dec 2015	0.263	Dec 2016	-		0.263	Continuing	Continuing	-
Training Development	MIPR	SSC PAC : San Diego	-	0.201	Dec 2014	0.166	Dec 2015	0.604	Dec 2016	-		0.604	Continuing	Continuing	-
		Subtotal	13.250	8.130		6.923		5.683		-		5.683	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	MIPR	Various : Various	-	0.247	Dec 2014	0.196	Dec 2015	0.348	Dec 2016	-		0.348	Continuing	Continuing	-
		Subtotal	-	0.247		0.196		0.348		-		0.348	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Option/ CPFF	BAH : San Diego, CA	-	1.171	Dec 2014	0.967	Dec 2015	1.445	Dec 2016	-		1.445	Continuing	Continuing	-
Program Management Support	Option/ CPFF	ILS : TBD	0.000	-		-		0.063	Dec 2016	-		0.063	Continuing	Continuing	-
Program Managment	Option/ CPFF	Sentek : San Diego, CA	0.000	0.344	Dec 2014	-		-		-		-	Continuing	Continuing	-
Contract Engineering Support	SS/CPFF	Seaport : San Diego, CA	0.000	-		0.284	Dec 2015	0.223	Dec 2016	-		0.223	Continuing	Continuing	-
Government Engineering Support	MIPR	SSC PAC : San Diego,CA	0.000	0.106	Dec 2014	0.088	Dec 2015	0.083	Dec 2016	-		0.083	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Cooperation Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	MIPR	SPAWAR : San Diego,CA / Charleston, SC	-	0.010	Dec 2014	0.008	Dec 2015	0.016	Dec 2016	-		0.016	Continuing	Continuing	-
		Subtotal	0.000	1.631		1.347		1.830		-		1.830	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.250	10.008		8.466		7.861		-		7.861	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

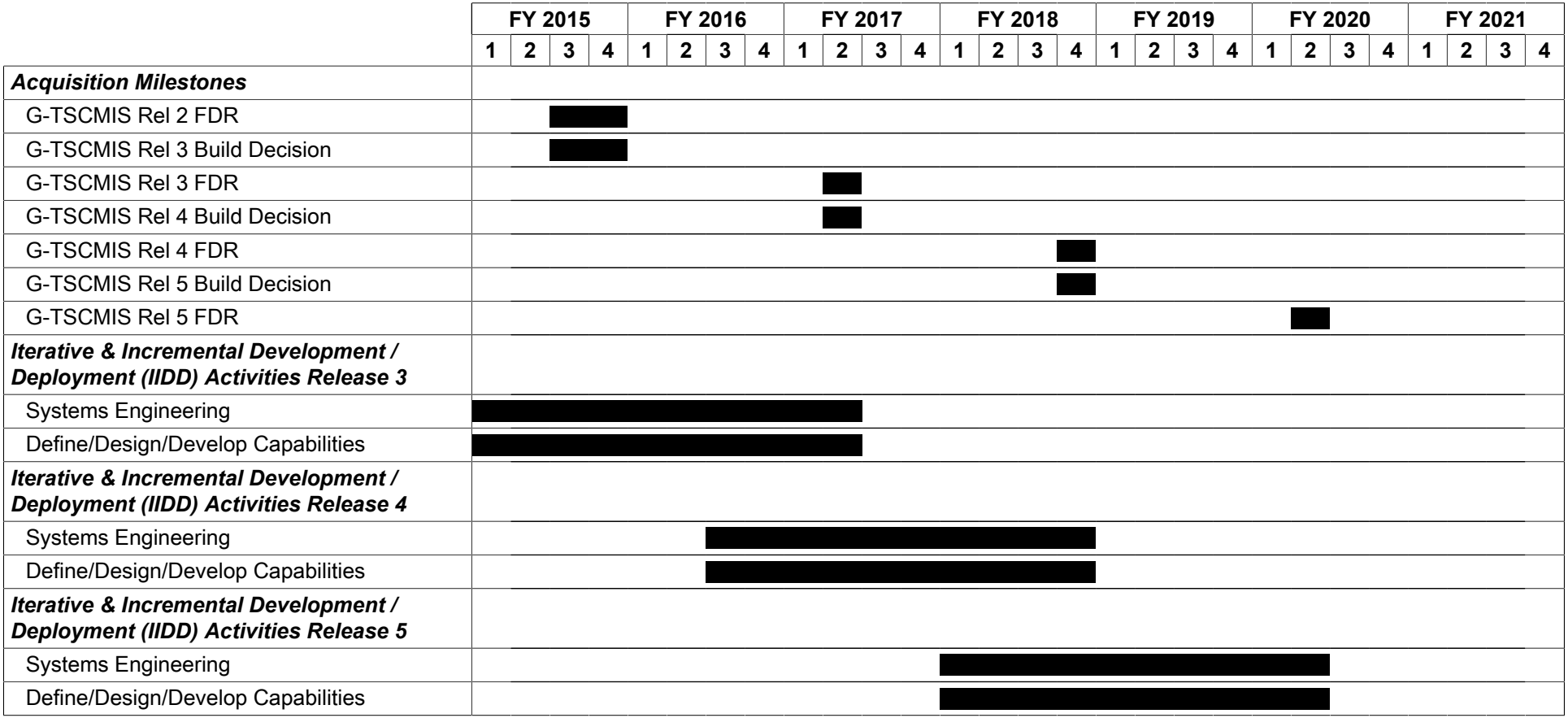


Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Security Cooperation Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607327T / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*	**Project (Number/Name)** 1 / *Global Theater Security Cooperation Management information Systems (G-TSCMIS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestones				
G-TSCMIS Rel 2 FDR	3	2015	4	2015
G-TSCMIS Rel 3 Build Decision	3	2015	4	2015
G-TSCMIS Rel 3 FDR	2	2017	2	2017
G-TSCMIS Rel 4 Build Decision	2	2017	2	2017
G-TSCMIS Rel 4 FDR	4	2018	4	2018
G-TSCMIS Rel 5 Build Decision	4	2018	4	2018
G-TSCMIS Rel 5 FDR	2	2020	2	2020
Iterative & Incremental Development /Deployment (IIDD) Activities Release 3				
Systems Engineering	1	2015	2	2017
Define/Design/Develop Capabilities	1	2015	2	2017
Iterative & Incremental Development /Deployment (IIDD) Activities Release 4				
Systems Engineering	3	2016	4	2018
Define/Design/Develop Capabilities	3	2016	4	2018
Iterative & Incremental Development /Deployment (IIDD) Activities Release 5				
Systems Engineering	1	2018	2	2020
Define/Design/Develop Capabilities	1	2018	2	2020

Department of Defense
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Defense Security Service

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Program Element Table of Contents (Alphabetically by Program Element Title)..... Volume 5 - 571

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Defense Security Service
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

04 Feb 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
181	0604130V	Enterprise Security System (ESS)	07	3,988	5,929		5,929	4,241		4,241	U
229	0305327V	Insider Threat	07	8,670	2,533		2,533	5,034		5,034	U
	Operational System Development			12,658	8,462		8,462	9,275		9,275	
Total Defense Security Service				12,658	8,462		8,462	9,275		9,275	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of February 4, 2016 at 07:42:09

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

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
181	07	0604130V	Enterprise Security System	Volume 5 - 573
229	07	0305327V	Insider Threat	Volume 5 - 581

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

Program Element Title	Program Element Number	Line #	BA	Page
Enterprise Security System	0604130V	181	07	Volume 5 - 573
Insider Threat	0305327V	229	07	Volume 5 - 581

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	105.465	3.988	5.929	4.241	-	4.241	4.565	4.183	3.372	3.473	Continuing	Continuing
000: *Enterprise Security System*	105.465	3.988	5.929	4.241	-	4.241	4.565	4.183	3.372	3.473	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Security Service (DSS) oversees the protection of the nation's most critical technological and information assets, administers the National Industrial Security Program (NISP) on behalf of the Department of Defense and 30 other Federal agencies. In this capacity, DSS is responsible for providing security oversight, counterintelligence coverage and support to almost 10,000 cleared companies (comprising over 13,500 industrial facilities and about 1.2 million cleared contractors), and accreditation of more than 14,000 classified information technology systems in the NISP. DSS also serves as the functional manager responsible for the execution and maintenance of DoD security education and training.

The Defense Security Service manages the National Industrial Security Program (NISP) to provide an effective, real-time, security support capability for the 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, NISP is the unified offering of security mission systems which facilitate and automate improved national investigative and adjudicative standards, streamline security processes, and increase DoD community collaboration.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.988	7.929	4.241	-	4.241
Current President's Budget	3.988	5.929	4.241	-	4.241
Total Adjustments	0.000	-2.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Decrease is due to several investments transitioning from the Developmental phase into the Sustainment phase.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0604130V / *Enterprise Security System*	Project (Number/Name) 000 / *Enterprise Security System*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
000: *Enterprise Security System*	105.465	3.988	5.929	4.241	-	4.241	4.565	4.183	3.372	3.473	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Security Service manages the Enterprise Security System (ESS) to provide an effective, real-time, security support capability for the 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, ESS is the unified offering of security mission systems which facilitate and automate improved national investigative and adjudicative standards, streamline security processes, and increase DoD community collaboration.

The DSS Mission Information Technology (IT) systems provide critical service to the major DSS mission areas for Industrial Security Oversight and Security Education. DSS performs this critical function through operation of its mission production systems to include the Industrial Security Facilities Database (ISFD), the DSS Gateway, and the Security Training Education and Professionalization Portal (STEPP). RDT&E for DSS mission systems primarily includes pre-planned product improvements to the applications, researching and improving assured information sharing to better posture systems and networks against vulnerabilities, ensuring self-defense of systems and networks, and safeguarding data at all stages for the DSS to increase efficiencies by providing web-based systems to manage certification and accreditation activities. These IT systems are as follows:

Office of Designated Approving Authority (ODAA) Business Management System (OBMS). The OBMS will automate the approval and certification process of cleared industry's classified information processing security plans and operations. This will increase mission efficiency by providing a web-based system to manage certification and accreditation activities, provide improved reporting capabilities to support DSS and industry through improved metrics, accreditation timeliness and accuracy and reduce the number of unaccredited systems by providing automated notifications to DSS and industry.

EFCL: The eFCL will be a centralized repository for information of facilities participating in the National Industrial Security Program (NISP). The eFCL will capture facility information relating to a cleared facility, from the initial processing of the facility clearance, the record decision pertaining to facility clearance request, to include Foreign Ownership Control or Influence (FOCI) information, as well as decommissioning the facility clearance, and capturing the DSS oversight activities. The eFCL will provide a means for users to submit, update, search, and view facility verification requests.

Industrial Security Facilities Database (ISFD). ISFD is the main DSS mission system that tracks and executes the National Industrial Security Program for DoD and 27 other Federal Executive Agencies of cleared industrial security facilities. The ISFD provide users with a nationwide perspective on National Industrial Security Program related facilities, as well as, facilities under DSS oversight in the DoD conventional AA&E program. ISFD provides source data for the DoD Joint Personnel Adjudicative System (JPAS) and the Facility Verification Request (FVR) application.

National Industrial Security System (NISS, formerly known as Field Operations System (FOS). The NISS is slated as the next generation enterprise capability, replacing the Industrial Security Facility Database (ISFD). Additionally, NISS will provide seamless integration of other DSS systems and applications, such as eFCL, OBMS, DD-254, and Mobile Workforce Applications. NISS will provide DSS with comprehensive enhanced capability to manage its entire mission portfolio. NISS will improve

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

information sharing and collaboration, providing timely and accurate data in the hands of field representatives for decision-making. The system will provide agency-wide metrics to measure and improve agency performance in providing security oversight and the protection of national security.

The National Contract Classification System (NCCS). The Federal Acquisition Regulation (FAR) requires a DD Form 254 be incorporated in 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 contractor (or a subcontractor) the security requirements and classification guidance necessary to perform on a classified contract. 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 providing classified information access and guidance required to perform on classified contracts. The DD 254, an underlying business processes, is critical to ensure access to our Nation's classified information is properly safeguarded.

National Industrial Security Program (NISP) 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 Assistant Secretary of Defense for Networks and Information Integration (ASD-NII), 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), directing accelerated use of PKI across the enterprise. This initiative is designed to enable multiple DSS business systems to have service-accessibility that is controlled through PKI-compliant single sign-on authentication. Expanded use of the NCAISS across the DSS enterprise to provide CAC-based authentication for business support applications to support the SIPRNet and JWICS domains, provide enhanced identity and access control analytics. It will also incorporate any remaining DSS operated application into the DSS NCAISS solution.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Systems Enhancement	3.988	5.929	4.241
FY 2015 Accomplishments: 1. NISS. The NISS acquisition effort will conclude 30 Sep 15 with successful completion of the Agency's first competitive prototyping initiative. The acquisition effort resulted in selection of a NISS Developer which provided a fully viable Proof of Concept (POC), comprehensive written technical approach and overall best value to the organization. The selection of a near usable prototype decreases system development time, minimizes overall project risk and reduces costs incurred by the tax payer. The agency leveraged Industry engagement prior to the final Request for Proposal (RFP) through controlled access to Reading Rooms, Product Demonstrations and Industry Days. 2. ISFD. The Agency concluded a code review exercise for the ISFD with identification of inherent defects and reporting capability gaps. The application is currently undergoing updates for compliance with the DoD Cloud First mandate and CAC/ECA enablement. By leveraging the Agency partnership with Intelligence Systems Support Office (ISSO), DSS has begun the process of virtualizing the application for elimination of physical hardware reliance.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
3. NCCS. IOC was achieved in June 2015. (NCCS is an application within the Wide Area Workflow (WAWF) eSuite. DSS in partnership with AT&L and their development arm DLA and working closely together to get to FOC with future version releases). Continued planning, testing and deployment for future enhancements. 4. OBMS. Finalized application enhancements, security patching, software upgrades. FOC will conclude 30 September 15 with implementation of release 2.3 5. NCAISS. Completed some software upgrades, continued integration and application enhancements and continuing to work on Oracle OIM/OAM migration efforts. ***FY 2016 Plans:*** 1. NISS. The Agency will begin development of the NISS increment one. Increment one will expand upon the winning POC by adding exception workflows for the Facility Clearance process, including Foreign Ownership, Control and Influence (FOCI), pre-assessments and onsite surveys. The NISS team will establish data mapping plans for the eventual decommissioning of ISFD and electronic Facility Clearance (eFCL) systems. The Agency will initiate iterative functional and automated testing for increment one by Q3 of FY16. 2. ISFD. The ISFD reporting capability will be migrated to a common enterprise reporting system which will provide greater insights for Industry Security oversight. 3. NCCS. Continued planning, requirements gathering and enhancements and version releases and FOC in FY 16. 4. OBMS. Security patching and continued transition sustainment activities until full transition and sustainment in FY 16. 5. NCAISS. Continued integration and application sustainment costs, with some software upgrades ***FY 2017 Plans:*** 1. NISS. Independent Verification and Verification (IV&V) and User Acceptance Testing (UAT) findings will be addressed by the Developer. Fixes to these identified findings will constitute the Initial Operating Capability (IOC) of NISS, targeted for deployment NLT Q3 FY 17. The Developer will begin development of Increment two. Increment two activities will include revalidation of existing functional requirements with emphasis upon Mobile-ready technical capabilities and Risk Based Proactive monitoring capabilities. 2. ISFD. ISFD will be decommissioned approximately 6 months following initial deployment of NISS, with full ISFD data migration to the replacement Industrial Security System of Record. The final year of ISFD operation will run in parallel with NISS. 3. NCCS. Continued enhancements through version releases and continued sustainment. Working towards transferring program management to DLA. 4. OBMS. Full sustainment. OBMS will be merged with NISS. 5. NCAISS. Continued integration and application sustainment costs. Integration/interface requirements with NISS as needed.			
Accomplishments/Planned Programs Subtotals	3.988	5.929	4.241

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

DSS will use a variety of acquisition appropriate vehicles such as Indefinite Delivery, Indefinite Quantity (IDIQ), 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 significantly reduce the lead time in contract award process and reduce overhead contract cost, improve technical solutions and deployments, and deliver more effective and efficient automation projects for DSS and the NISP community.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Enterprise Security System	C/BPA	SAIC, Northrup Grumman, EDS, Herndon, VA and Columbia, MD : Herndon, VA	105.465	3.988	Dec 2014	5.929	Dec 2015	4.241	Dec 2016	-		4.241	Continuing	Continuing	Continuing
		Subtotal	105.465	3.988		5.929		4.241		-		4.241	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	105.465	3.988		5.929		4.241		-		4.241	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Security Service		**Date:** February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

Exhibit R-4

Exhibit R-4, RDT&E Project Schedule Profile																																										Date: February 2015
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW / 07					PROGRAM ELEMENT 0604130V								PROJECT NAME Enterprise Security System																													
Fiscal Year	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022													
	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	1	2	3	4										
Technology Development of ESS Applications																																										
Production and Deployment of Applications																																										
O&M																																										
Remarks:																																										

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0604130V / *Enterprise Security System*	**Project (Number/Name)** 000 / *Enterprise Security System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Technology Development of ESS Applications				
Production and Deployment Enhancements	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Security Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305327V / *Insider Threat*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	8.670	2.533	5.034	-	5.034	0.000	0.000	0.000	0.000	Continuing	Continuing
0305327V: *Insider Threat*	0.000	8.670	2.533	5.034	-	5.034	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The DoD Insider Threat program will provide an integrated capability to monitor and audit information for insider threat detection and mitigation. The program will gather, integrate, review, assess, and respond to information derived from CI, security, cyber security, civilian and military personnel management, workplace violence, anti-terrorism risk management, law enforcement, the monitoring of user activity on DoD information networks, and other sources as necessary and appropriate to identify, mitigate, and counter insider threats. Key elements of the Insider Threat program and security reform efforts are the establishment and operation of the Defense Insider Threat Management and Analysis Center (DITMAC); and the implementation of Continuous Evaluation (CE).

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	8.670	2.533	2.100	-	2.100
Current President's Budget	8.670	2.533	5.034	-	5.034
Total Adjustments	0.000	0.000	2.934	-	2.934
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• One Time Increase	-	-	2.934	-	2.934

Change Summary Explanation

Additional funding will be used to expand the development of the DITMAC System of Systems for adoption by DoD Components and begin the automation of the interface for tools.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305327V / *Insider Threat*	Project (Number/Name) 0305327V / *Insider Threat*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0305327V: *Insider Threat*	0.000	8.670	2.533	5.034	-	5.034	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The DoD Insider Threat program will provide an integrated capability to monitor and audit information for insider threat detection and mitigation. The program will gather, integrate, review, assess, and respond to information derived from CI, security, cybersecurity, civilian and military personnel management, workplace violence, anti-terrorism risk management, law enforcement, the monitoring of user activity on DoD information networks, and other sources as necessary and appropriate to identify, mitigate, and counter insider threats. Key elements of the Insider Threat program and security reform efforts are the implementation of Continuous Evaluation (CE) and establishment of the Defense Insider Threat Management and Analysis Center (DITMAC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Insider Threat	8.670	2.533	5.034
FY 2015 Accomplishments: Funding enhanced the capabilities of the Insider Threat program to deter, detect and mitigate threat from exploitation, compromise and or other unauthorized disclosure. Funded development and evaluation of CE tools and systems. Expanded CE capacity and improves access to near real time data feeds from systems capable of providing reports and alerts. Performed proof of concept to identify analytical tools' efficacy and informed future system development. Funding also supports assessment of emerging technologies, development of DITMAC technical requirements and the DITMAC Systems of Systems.			
FY 2016 Plans: Funding will continue the initial development of the DITMAC System of Systems and interface for tools currently under development by other DoD Components. IOC is scheduled for Q1FY16			
FY 2017 Plans: Funding will expand the development of the DITMAC System of Systems for adoption by DoD Components and begin the automation of the interface for tools currently under development by other DoD Components for Delivery in FY17. Funding will also continue development of CE tools and systems.			
Accomplishments/Planned Programs Subtotals	8.670	2.533	5.034

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305327V / *Insider Threat*	**Project (Number/Name)** 0305327V / *Insider Threat*

D. Acquisition Strategy

N/A

E. Performance Metrics

TBD

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305327V / *Insider Threat*	**Project (Number/Name)** 0305327V / *Insider Threat*

Remarks

Funding will further enhance the capabilities of the Insider Threat program to deter, detect and mitigate threats through establishment and operation of the Defense Insider Threat Management and Analysis Center and the successful implementation of Continuous Evaluation.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305327V / *Insider Threat*	**Project (Number/Name)** 0305327V / *Insider Threat*

Exhibit R-4

Exhibit R-4, RDT&E Project Schedule Profile																												Date: February 2015
APPROPRIATION/BUDGET ACTIVITY RDT&E, DW / 07					PROGRAM ELEMENT 0305327V								PROJECT NAME Insider Threat																
Fiscal Year	FY 2015				FY 2016				FY 2017																			
	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
Technology Development of ESS Applications																												
Production and Deployment of Applications		▲		▲			▲	▲		▲		▲																
O&M																												
Remarks:																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Security Service		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305327V / *Insider Threat*	**Project (Number/Name)** 0305327V / *Insider Threat*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Insider Threat				
Continuous Evaluations	1	2015	4	2017

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Defense Technical Information Center

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234
Summary Recap of FYDP Programs							
Research and Development	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234
Summary Recap of FYDP Programs							
Research and Development	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Defense Technical Information Center	50,789	56,775		56,775	48,234		48,234
Total Research, Development, Test & Evaluation	50,789	56,775		56,775	48,234		48,234

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
155	0605502KA	Small Business Innovative Research	06	400							U
160	0605801KA	Defense Technical Information Center (DTIC)	06	50,389	56,775		56,775	43,834		43,834	U
164	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06					4,400		4,400	U
		Management Support		50,789	56,775		56,775	48,234		48,234	
Total Research, Development, Test & Eval, DW				50,789	56,775		56,775	48,234		48,234	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

Defense Technical Information Center
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
155	0605502KA	Small Business Innovative Research	06	400							U
160	0605801KA	Defense Technical Information Center (DTIC)	06	50,389	56,775		56,775	43,834		43,834	U
164	0605998KA	Management HQ - Defense Technical Information Center (DTIC)	06					4,400		4,400	U
Management Support				50,789	56,775		56,775	48,234		48,234	
Total Defense Technical Information Center				50,789	56,775		56,775	48,234		48,234	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 27, 2016 at 10:16:46

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605801KA / *Defense Technical Information Center*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	56.024	50.789	56.775	43.834	-	43.834	45.504	46.517	47.190	48.034	Continuing	Continuing
001: *Defense Technical Information Center*	48.971	45.041	51.027	38.086	-	38.086	39.756	40.620	41.212	41.930	Continuing	Continuing
002: *Information Analysis Centers*	7.053	5.748	5.748	5.748	-	5.748	5.748	5.897	5.978	6.104	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Technical Information Center's (DTIC) unique mission is to provide rapid, accurate, and reliable access to essential research, development, test, and evaluation (RDT&E) information, supporting all DoD users. DTIC, a DoD Field Activity, is the DoD's singular executive agent and designated source for DoD-funded scientific, technical, engineering, and industry-related information. DTIC is an information delivery house that delivers technical information nearly instantaneously to all DoD users. DTIC also operates DoD Information Analysis Centers (IACs) focused on Defense Systems, Cyber Security and Information Systems, and Homeland Defense and Security. DTIC captures, preserves, protects, and shares research and development (R&D) information assets, and encourages collaboration to connect user communities. DTIC seeks to provide a department level mapping of R&D activity. This activity and its results advance research by providing researchers, warfighters, research and engineering (R&E) management, and decision makers with insight into current and past research conducted, highlighting progress made and by whom, and, just as important, where research leads to dead ends. As new capability needs are identified, technical challenges arise--rather than starting anew--work can pick up from the point of most recent results. Through the preservation and sharing of the results of billions of dollars of past DoD investment, DTIC increases the return on past investments and accelerates current efforts. Through its collaboration tools and outreach to the R&E community, DTIC connects researchers across the lab enterprise, to include research and engineering, warfighters and DoD's industry partners. DTIC operations focus on six key areas:

1) Collect, document and preserve what works, what has promise (for reuse and additional investments).
2) Provide results that identify dead-ends that do not merit additional investment (avoid waste).
3) Facilitate and encourage engagement among cross-cutting communities of interest (bring together experts across the acquisition enterprise to meet warfighter needs).
4) Present overarching picture of research investment that enables decision-makers to link multiple efforts with integrated capabilities (employ resources to highest priority efforts and coordinate efforts across Services).
5) Protect intellectual property (IP) and industry proprietary data assets entrusted to DTIC's stewardship (protect information access).
6) Provide industry and citizen scientists the results of unrestricted research.

DTIC recognizes the need to accomplish its mission while increasing the value of the services and products we provide in an environment of Department-wide budget reductions. DTIC has reduced its headquarter staffing, physical footprint, civilian personnel and contract support; restructured the IAC program; and continues to consolidate its data center. At the same time, DTIC has taken on additional programs, to include its new role in leading the Department in efforts to provide public access to DoD-funded journal articles and research data and increase outreach to industry through the Defense Innovation Marketplace. Moreover, DTIC activities

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*

promote Citizen Science, which mobilizes the public to participate in the scientific process to address real-world problems, in ways that include identifying research questions, collecting and analyzing data, interpreting results, making new discoveries, developing technologies and applications, and solving complex problems. DTIC continues to ensure its activities are efficient and effective, meet users' expectations, and employ industry best practices and standards, while protecting from cyber threats. DoD's $120 Billion annual investment in research, development and procurement, support current and future capabilities. The results of these efforts are a national asset that DTIC must preserve for reuse across the acquisition enterprise. Approximately 23 percent of the four million records in DTIC's information holdings are sensitive DoD only, federal government only and industry proprietary. DTIC is the only enterprise source for both publicly accessible and DoD sensitive material.

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 Office provides core funding, management and oversight of three IACs, which are chartered by DoD to collect, analyze, and disseminate worldwide scientific and technical information in specialized fields. IAC multi-award task order contracts maximize use of the knowledge within the centers, ensuring that new research, analysis, and development builds on prior investments and best practices of government, industry, and academia. The IAC approach is deemed a "best practice" by the Director, Defense Procurement and Acquisition Policy in a Jan 2015 memo promoting maximum use of the IAC contracts across DoD. IACs are structured into three technology groupings: Cyber Security and Information Systems, Homeland Defense and Security, and Defense Systems. As part of the Department's Better Buying Power initiative, the IAC multi-award contracts enhance competition, increase outreach to and usage of small-businesses, and reduce government costs. The IAC model has demonstrated cost savings of 17-25%, delivering vetted technical expertise to address many of the complex challenges DoD faces. An independent assessment by the Center for Strategic and International Studies reported that the IACs improve affordability, productivity, and standardization within defense acquisition programs. Providing the acquisition enterprise access to thousands of industry subject matter experts, DTIC's IACs perform over $1 Billion of customer funded research and prototyping support annually. The results of the work are a rich source of material in DTIC's information asset collections and are available to users across the Department (and other federal agencies, e.g., Department of Energy, Department of Homeland Security).

This Program Element (PE) supports DTIC mission operations. DTIC focuses on three core mission areas (Collection, Dissemination and IACs) and purchases space and shared services (e.g., human resources (HR); financial management; contracting; IT security; communications; and civilian payroll services) from expert and efficient DoD providers. DTIC's role in the Department is to deliver the tools and collections that empower the research and engineering enterprise to accelerate the development of the technologies that will maintain U.S. technical superiority in the future; preserve and disseminate the research that led to the technologies our warfighters use today and will use in the future, and stimulate innovation with public/industry access to journal articles and the digital data that supports research conclusions funded by DoD. These activities maximize the value of each dollar the DoD spends through the analysis of funding data, work in progress and IR&D to identify gaps, challenges and the way forward. DTIC's FY 2015-16 efforts support the Agency's evolution from data dissemination to information dissemination. Laying the groundwork through the exploration of semantic technologies, and updating DTIC's Thesaurus to provide a basis for semantic analysis, will result in applying semantic linking and tagging technology to new collections, such as grant journal articles, data set metadata and acquisition data and pilot a solution to consolidate multiple organization name taxonomies to enable consistent and comprehensive organization search, browse, and linking across DTIC content. FY 2017 funds support the launch of information products that will take advantage of information architecture improvements to support U.S technological superiority with advances in warfighter technologies.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center					Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*		**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*			
B. Program Change Summary ($ in Millions)	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**
Previous President's Budget	50.789	51.775	50.410	-	50.410
Current President's Budget	50.789	56.775	43.834	-	43.834
Total Adjustments	0.000	5.000	-6.576	-	-6.576
• Congressional General Reductions	0.000	-			
• Congressional Directed Reductions	0.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Reprogramming to PE 0605998KA	-	-	-4.400	-	-4.400
• Program Changes	-	-	-2.044	-	-2.044
• Economic Assumptions - Pay/NonPay Inflation	-	-	-0.132	-	-0.132

Change Summary Explanation

Specific changes to the FY 2017 program (net decrease of $12.941 Million from the FY 2016 “Current President’s Budget” funding level; $6.576 Million less from the previous FY 2017 PB Base) are outlined below:

FY 2016 Congressional Adds: $5.000 Million one-time congressional add to the FY 2016 DTIC program element. The omnibus language cites “Program Increase: National security technology accelerator technology knowledge exchange.” This has not been programmed as an enduring increase; as such, this appears as a $5.0 Million decrease in the FY 2017 PB position.

Previous President’s Budget: The $1.365 Million reduction from the FY 2016 position to the FY 2017 Base reflects the curtailment of operating activities across the enterprise, and the deferment of modernization and development of DTIC tools and applications slated for DTIC’s various user communities. Reductions to civilian FTEs and the streamlining of DTIC contract requirements continue in FY 2017.

FY 2017 Program Changes: The DTIC mission serves as an efficiency enabler to the Department. Funding reductions to the DTIC program, as necessitated by budget realities, reduces opportunities for the Department to gain efficiencies and cost reductions across the enterprise. In FY 2017, there is a $2.044 Million budget reduction from the FY 2016 funding level. As a result of this reduction, the following DTIC efforts and program content will be down-scoped in FY 2017:

- Public Access program/Public website capabilities.
-- The collection of data sets associated with Public Access will be limited to a pilot in FY 2017. Activities will be limited to current capacity. The procurement of additional storage capacity and bandwidth will be delayed to FY 2018.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*

-- Development of advance search capabilities related to public search of Technical Reports (TRs) will be delayed.
-- User training, along with the establishment of compliance and enforcement measures within the Department, will be deferred to FY 2018.
-- Search capabilities associated with DTIC's public website will not be expanded, limiting site utility to the user community.
- Development and capability upgrades planned for the Defense Innovation Marketplace will be deferred, limiting access and utility by both Department and industry users.
- Reduce efforts focused on the integration of data, communities and analysis across the Acquisition and Science and Technology (S&T) enterprise. Development of product enhancements that support visibility of--and integration across--existing acquisition data sources will be limited.
- Limit the introduction of unclassified material available to users on the Department's SIPRNET. The updating of SIPRNET data content and capabilities will be delayed, thereby creating a parity lag with comparable NIPRNET applications.
- The funding reduction will limit DTIC's responsiveness in addressing emerging requirements and mandates, and degrade our ability to enable efficiencies to offset Management HQ reduction impacts in OSD and the Services.

FY 2017 Economic Assumptions: $.132 Million represents pricing adjustments based on revised economic and inflation factors.

FY 2017 Reprogramming: $4.400 Million was reprogrammed by the Department from the DTIC PE 0605801KA to create a new DTIC Management Headquarters PE 0605998KA. The newly established PE and accompanying funding will support the HQ staff element assigned to DTIC.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605801KA / *Defense Technical Information Center*	Project (Number/Name) 001 / *Defense Technical Information Center*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
001: *Defense Technical Information Center*	48.971	45.041	51.027	38.086	-	38.086	39.756	40.620	41.212	41.930	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 Assistant Secretary of Defense for Research and Engineering (ASD(R&E)) and the DoD scientific & 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 aim is to maximize the availability and use of technical information and products resulting from Defense-funded technical activities while ensuring restrictions to safeguard national security, export control, and intellectual property rights.

Recognizing the common elements across budget justification documents, progress reports, completed work reports, studies, and journal articles, DTIC is mapping relationships to enable users to access the life cycle of research projects from planning to final results. DTIC employs technology to verify and validate information submitted and improve user confidence in DoD research documentation.

DTIC is leading the Department's efforts to implement public access to published journal articles, and digital data from research funded by taxpayers. In this role, DTIC is actively working with partners across the Services, components, other federal agencies and publishers. These ongoing efforts directly complement and support the Department's objectives associated with Citizen Science. Consistent with the Administration's (Office of Management and Budget) emphasis for open standards and machine readable formats, DTIC initiated the transition from paper and Portable Document Format (PDF) based information to Web Service Extensible Markup Language (XML) standard data submission and machine readable delivery. DTIC partnered with the OSD Comptroller to collect investment account budget justification documentation in XML and embed this XML in PDF for justification books delivered to Congress. DTIC employed this same technology in collecting S&T progress reports from the Services and Agencies, and Independent Research and Development (IR&D) data from industry. DTIC is planning the migration of completed technical reports collection to the same open standards – machine readable formats.

Through the use of commercial search technology, DTIC provides an industry leading search capability that links its knowledge of the DoD domain and metadata to support both text searches and data mining. DTIC continually works to enable additional features within our search capabilities and from commercial partners to improve information discovery and relevance.

DoD conducts research at its 60+ labs, in the Federally Funded Research and Development Centers (FFRDCs), DTIC's Information Analysis Centers (IACs), through contracts and grants, and across over a dozen distinct priority area communities of interest; this work is available through DTIC's web-based R&E Gateway. To protect this information, DTIC maintains a database of registered users; in addition, DTIC utilizes commercial software and follows DoD Identity Management Standards, providing Common Access Card (CAC) users instant authenticated access. DTIC's unclassified assets, tools and community interaction capabilities foster innovation, competition and identification of solutions in an access controlled environment.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

Focus on User Communities and Distribution Points: DTIC supports user communities on the network where they work, NIPRNET, SIPRNET and Internet, and uniquely provides access controls within unclassified and classified material to protect intellectual property in our search, distribution, and collaboration tools.

- DoD's Acquisition Enterprise: As a Field Activity to ASD(R&E)/AT&L, DTIC's priority is the acquisition enterprise, hosting information assets and tools on the NIPRNET (the primary network for the community).

- Warfighter: Improving coordination between the acquisition enterprise and warfighter communities, DTIC hosts a subset of information assets and tools on the SIPRNET. DTIC is working to expand the availability of S&T information, to include Independent Research and Development (IR&D), on the SIPRNET. Efforts continue to establish parity of information and capabilities on applications hosted on both NIPRNET and SIPRNET platforms.

- Industry and Academia via Internet: Engaging industry outside the NIPRNET "firewall" to support Better Buying Power initiatives and encourage the introduction of innovation, DTIC hosts unclassified "public" information and tools accessible to all users on the Internet. The Public Access initiative adds importance to the public distribution point, to encourage technology transfer of basic and public research to the private sector, and to give an economic boost to small businesses that can use that data to provide new applications to consumers.

Summary. DTIC protects and preserves DoD's multi-billion dollar investment in research, which empowers the acquisition enterprise through innovative tools, information systems, and decision support capabilities. The benefits can be enormous; each 1 percent increase in reuse of S&T, elimination of inefficient redundancy and increased community interaction, results in a more capable military and gives the DoD the opportunity to redirect >$100 Million. DTIC is uniquely positioned to support and unleash the value of DoD's R&D portfolio.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Defense Technical Information Center	45.041	51.027	38.086
FY 2015 Accomplishments: - Managed and implemented the primary objectives associated with public access to publications and digital data. Providing public access to federally funded research not only brings the Department into compliance with the OSTP Memorandum, but also provides DoD a central repository of all published S&T information and datasets. -- Worked with the Defense Basic Research Advisory Group (DBRAG) to initiate policy changes for phase I, intramural basic research projects. -- Explored and identified a monitoring and compliance mechanism; added public access compliance fields to Unified Research and Engineering Database (URED). -- Identified a catalog/locator to track data set locations, and potential DoD digital repositories for storage. -- Completed the interface pilot program in partnership with Department of Energy to provide access to DoD-funded publications. - Evolved and improved Defense Innovation Marketplace capabilities in alignment with the Department's Better Buying Power 2.0/3.0 initiative, enabling acquisitions experts to include industry-sponsored research in their buying plans.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
-- Captured industry's classified Independent Research and Development (IR&D) and moved search collection to the SIPRNET environment. -- Employed the Marketplace for virtual Technology Interchange Meetings with industry. - Acquired a solution and initiated implementation of consolidated DTIC data collections into one common storage infrastructure (the Master Data Repository) for increased analysis capabilities across the suite of collections. - Bolstered capabilities of the DoD Research and Engineering (R&E) Gateway based on specific user requirements and usage. The Acquisition community, the S&T communities of interest (CoIs), and the Department requested access to the R&E Gateway databases on SIPRNET to ensure all users have access to the same information. -- Engaged defense communities and their subject matter experts; worked with partners to expand user-provided content and research materials to benefit the DoD mission. -- Promoted information sharing and secure collaboration among the 17 DoD science and technology (S&T) communities of interest (COIs) by assisting them with DTIC's collaborative tools. -- Expanded technical and budget content available on SIPRNET version. - Deployed new Unified Research and Engineering Database (URED) capabilities for the user community to expand Department's usage of URED information. Modified and enhanced DoD research summaries to capture information related to public access of journal articles and digital data. - Strengthened access controls to the DoD Research and Engineering (R&E) Gateway and other DTIC provided tools with the introduction of smart-card login for eligible users within the defense industry, to comply with the DoD CIO mandate to eliminate user ID and password access. - Expanded the searchable International Agreements Database (IADB) for DoD users by integrating international agreements from Defense Threat Reduction Agency (DTRA), Defense Advanced Research Projects Agency (DARPA) and Missile Defense Agency (MDA) to provide a single access point for users seeking information on DoD International Agreements. - Implemented Initial Operating Capability (IOC) for the new DTIC unclassified content management system in the DoD-hosted cloud. -- Determined a solution to securely transfer data between the unclassified and classified content management systems. - Met DoD's audit readiness milestones and requirements. - Began the planning and implementation of data center migration to a DoD-CIO approved facility and/or cloud service. - Implemented the data center IT hardware and software refresh, reducing the both the physical footprint and related support costs, while improving system security and reliability. - Aligned with the DoD initiative for the Federal Data Center Consolidation Initiatives (FDCCI) to maximize the virtualization of DTIC systems and applications and how to best support DoD, industry partners, and academia users.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- In an effort to offset the impacts of budgetary and staff reductions, investigate the potential and capabilities of semantics to automate the auto-tagging and mapping of relationships across DTIC's suite of collections. If successful, this effort would enable users to discover information with less expertise. - Support DoD's public access effort; implement Phase I, intramural basic research, including compliance tracking and enforcement for public access, and the policy development process for contracts and grants. Public access to federally funded research provides DoD a central repository of all published S&T information and datasets. Expand publically-available content in support of the Department's Citizen Science objectives. -- Implement a catalog/locator to track data set locations. -- Process journal articles, and look into hosting smaller data sets in support of intramural research. -- Begin pilot projects for voluntary submission of contract and grant published articles and data sets. - Expand Defense Innovation Marketplace search and analytic capabilities in alignment with the Department's Better Buying Power 3.0 initiative; add small business research information. -- Employ the Marketplace for virtual Technology Interchange Meetings with industry. -- Explore the utility of Technology Domain Awareness (TDA) activities. Develop roadmap and execute initial outreach with the National Defense University (NDU). - Implement Full Operating Capability (FOC) of DTIC standard library content management system in the DoD-hosted cloud; implement a classified version. -- Consolidate report collection into a DTIC standard input solution, reducing the footprint of multiple technologies and driving efficiencies and cost avoidance. - Implement Full Operating Capability of the Master Data Repository (MDR) solution to consolidate DTIC data collections into one common storage infrastructure for increased analysis and visualization capabilities across the suite of collections. -- Implement a classified version of the MDR. -- Expand the collections available to DTIC users with an advanced, integrated search on both the NIPRNET and SIPRNET. - Collaborate with the DoD Intelligence community on policy and planning for the implementation of the new Controlled Unclassified Information (CUI) federal marking regulations. - Offer enhanced Unified Research and Engineering Database (URED) capabilities and training for the user community, to include advanced search and visualization functionalities to support better decision making across the Department. Provide requested capabilities to expand the Department's usage of the URED information. - Evaluate metrics, usage patterns and new user requirements to determine and implement more advanced, integrated capabilities for the DoD Research and Engineering (R&E) Gateway collaboration, search and analytics on the NIPRNET and SIPRNET based on this feedback. By evaluating usage metrics on a continuous basis DTIC can provide better customer services and training opportunities targeted to user groups. -- Expand outreach to the DTIC user community and DoD science and technology (S&T) communities of interest (COIs) by offering onsite briefings, demonstrations and training for the R&E Gateway search and collaborative tools.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Implement a reporting and dashboard capability in the International Agreements Database (IADB). - Meet DoD's audit readiness milestones and requirements. - Align with DoD Joint Information Environment (JIE) initiative for the Federal Data Center Consolidation Initiatives (FDCCI) by maximizing the virtualization of DTIC systems and applications that services all of the DoD, industry partners, and academia users. - Plan the migration of DTIC to a DoD-CIO approved cloud service provider, based on final guidance from the Department. Assist DTIC-hosted customers to do the same. ***FY 2017 Plans:*** - Evaluate FY 2016 progress in semantic technology; expand semantic enhancement of content to promote exploration and discovery to the extent maturing capabilities allow. If progress in semantic technology is deemed insufficient, the following plans will be jeopardized. -- Apply semantic linking and tagging technology to new collections, such as grant journal articles, data set metadata and acquisition data. -- Pilot solution to consolidate multiple organization name taxonomies to enable consistent and comprehensive organization search, browse, and linking across DTIC content. - Support DoD's public access effort, albeit at a reduced level; implement Phase II, extramural basic research, for contracts and grants, as the policy language is published in the Code of Federal Regulations (CFR). Providing public access to federally funded research not only brings the Department into compliance with the OSTP Memorandum, but also provides DoD a central repository of all published S&T information and datasets. -- Begin accepting voluntary submission of journal articles and digital data, albeit limited to file size under 2GB. -- Provide public pilot searchable catalog to order digital data. -- Promote and support the Department's Citizen Science efforts; improve data quality, advance openness and the preserving and sharing of data, and expand public participation in the scientific process, helping to find solutions to DoD challenges. - Complement the Department's Better Buying Power 3.0 (BBP 3.0) initiative by expanding the search and analytic capabilities of the Defense Innovation Marketplace. -- Broaden the scope to include commercial, domestic, and international data sources, contributors and users. -- Maintain the Marketplace capability to support all the Services' communications with industry for virtual Technology Interchange Meetings, across all of the Communities of Interest (COIs). -- Expand Independent Research and Development (IR&D) database fields to comply with BBP 3.0 and Defense Procurement and Acquisition Policy (DPAP) guidelines for technical sponsors and written technical reports on the projects. -- Review Technology Domain Awareness (TDA) results, and develop next steps to reach and access non-traditional commercial sources.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continue migrating legacy standalone collection feeds to DTIC's standard library content management system in the DoD-hosted cloud, reducing the footprint of multiple technologies and driving efficiencies and cost avoidance. -- Add additional collections and processing to the content management system. -- Create a programming interface for bulk load of input from the DoD Labs. -- Seek opportunities with DoD Labs to pilot a service to automatically pull technical reports or project information from local document management systems, reducing the burden on labs, opportunities for error, and lag time to publish. - Employ the Master Data Repository (MDR) solution to increase analysis and visualization capabilities across the suite of collections. -- Add new collections to the MDR. -- Investigate the use of MDR for development of new customer and ASD(R&E) products using information across DTIC collections. -- Implement ability to automatically publish web pages on topical areas. -- Create a programming interface for searches to promote reuse of S&T content by other DoD and federal organizations. - Begin implementation of the new Controlled Unclassified Information (CUI) markings and programming validation for the new categories into DTIC systems. -- Change user validation categories in registration system, document markings in input system and access control rules in MDR. - Develop and enhance integrated search and analysis tools across all collections, including ongoing and completed research by industry, academia, and government, on the NIPRNET and SIPRNET. Provide requested capabilities to expand the Department's usage of the URED information. - Continue migration of DTIC sites and tools, along with DTIC-hosted external customer sites and tools, to the cloud and other hosting locations, as approved by DoD-CIO.			
Accomplishments/Planned Programs Subtotals	45.041	51.027	38.086

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Figures reflect FY 2015 end-of-year data.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 001 / *Defense Technical Information Center*

Community Interaction
1) Unique NIPRNET and SIPRNET Users: 29.2K
- SIPRNET users added in FY 2015 metrics.

Research Support and Library Repository
1) Scientific and technical information (STI) collected (both NIPRNET and SIPRNET): 96.8K
- SIPRNET collected added in FY 2015 metrics.

2) Total STI disseminated, to include competed work reports, work-in-progress summaries, industry IR&D, digitization requests, web inquiries, and citations (added in FY 2015 metrics):
- Access Control Downloads (NIPRNET and SIPRNET): 1.52M
- Public Document Downloads: 34.7M

3) Total STI holdings: 4.1M

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605801KA / *Defense Technical Information Center*	Project (Number/Name) 002 / *Information Analysis Centers*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
002: *Information Analysis Centers*	7.053	5.748	5.748	5.748	-	5.748	5.748	5.897	5.978	6.104	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. IAC operations 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.

The IAC Program Management Office at DTIC performs contract acquisition, 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 for accessing scientific and technical information culled from efforts to solve new and historic challenges. Direct IAC customer support activities, such as Technical Area Task (TAT) order processing, Basic Center Operations (BCO) 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 shared direct costs, in accordance with the IAC Reimbursable Review Board (IRRB) recommendations, with OSD-COMPT and Office of General Counsel concurrence. 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 2015	FY 2016	FY 2017
Title: Information Analysis Centers	5.748	5.748	5.748
FY 2015 Accomplishments: - Supported the DTIC mission to provide technical information to DoD. - Provided administrative oversight and basic core contract operations for DoD IACs to collect, analyze, synthesize and disseminate worldwide scientific and technical information (STI) in support of DoD's critical technologies and the warfighter. - Responded to technical inquiries and provide in-depth science and technology (S&T) analysis; create and provide STI results via IAC websites; captured STI products from new/on-going analysis tasks; and supported the exchange of information among members of the operational and technical communities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 002 / *Information Analysis Centers*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Managed and supported TATs ordered by the DoD and non-DoD customers; provided program strategy and ensured alignment with Department goals/direction. - Finalized acquisition strategy for the re-compete of the Software, Networks, Information, Modeling and Simulation (SNIM) contract to Cyber Systems Technical Area Tasks (CS TAT). - Awarded 105 new Technical Area Tasks (TAT) and Core Analysis Tasks (CAT) over six contract vehicles, representing over $2 Billion in research and analysis work for the Department. ***FY 2016 Plans:*** - Support the DTIC mission to provide technical information to DoD. - Provide administrative oversight and basic core contract operations for DoD IACs to collect, analyze, synthesize and disseminate worldwide scientific and technical information (STI) in support of DoD's critical technologies and the warfighter. - Respond to technical inquiries and provide in-depth science and technology (S&T) analysis; create and provide STI results via IAC websites; capture STI products from new/on-going analysis tasks; and support the exchange of information among members of the operational and technical communities. - Manage and support TATs ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction. - Plan for the re-placement of the Software, Networks, Information, Modeling and Simulation (SNIM) contract. - Complete award of new multi-award contract for Cyber Systems TAT. - Award approximately 71 new TATs and 30 new CATs totaling approximately $2.2 Billion in new research and analysis work. This is approximately a 9% increase in the typical annual work load for the IAC program. - Increase the ceiling limit for the Defense Systems TAT (DS TAT) multi-award contract from its current $3 Billion limit to about $7 Billion (at its present ceiling burn rate, DS TAT will hit its ceiling in June 2016, about 2.5 years before it ends). ***FY 2017 Plans:*** - Support the DTIC mission to provide technical information to DoD. - Provide administrative oversight and basic core contract operations for DoD IACs to collect, analyze, synthesize and disseminate worldwide scientific and technical information (STI) in support of DoD's critical technologies and the warfighter. - Respond to technical inquiries and provide in-depth science and technology (S&T) analysis; create and provide STI results via IAC websites; capture STI products from new/on-going analysis tasks; and support the exchange of information among members of the operational and technical communities. - Manage and support TATs ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction. - Continue to use ACC Picatinny for processing TAT awards; engage in aggressive customer outreach to initiate processing early. - Increase the ceiling limit for the Homeland Defense TAT (HD TAT) multi-award contract from its current $900 Million limit to about $2 Billion (at its present ceiling burn rate, HD TAT will hit its ceiling in Jan 2017, about 2.3 years before it ends).			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Technical Information Center		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605801KA / *Defense Technical Information Center*	**Project (Number/Name)** 002 / *Information Analysis Centers*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Develop and implement an acquisition strategy for follow-on contract vehicles for DS TAT and HD TAT.			
Accomplishments/Planned Programs Subtotals	5.748	5.748	5.748

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Figures reflect FY 2015 end-of-year data.

Number of:
- IAC web inquiries: 1,492,346
- IAC technical inquiries: 4,067
- STI documents added to IAC collection: 31,806
- STI documents generated by Technical Area Task (TAT) activities: 6,714
- Training or meeting events: 1,673
- Number of training attendees: 5,385
- Documents uploaded to DTIC's online repository: 27,333

Amount of funding:
- Provided by external customer requesting IAC technical analysis (TAT Funding): $1,305,721,327
- Provided by external customers purchasing IAC information products (Non-TAT funding): $110,577

Customer satisfaction regarding:
- IAC products and technical inquiry support (scale of 1 to 5, 5 being best): 4.9
- IAC TATs and training (scale of 1 to 5, 5 being best): 4.9

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605998KA / *Management HQ - Defense Technical Information Center (DTIC)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	4.400	-	4.400	4.187	4.470	4.270	4.560	Continuing	Continuing
001: *Management HQ - Defense Technical Information Center (DTIC)*	-	0.000	0.000	4.400	-	4.400	4.187	4.470	4.270	4.560	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 to the Assistant Secretary of Defense for Research and Engineering (ASD(R&E)/AT&L). The PE supports personnel compensation for HQ-assigned civilians, along with related administrative support costs. This second DTIC PE is established to track activities deemed as headquarters functions, with no operational efficiencies or enhancement to mission.

The new 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 (~ 6 authorizations) 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.
-- Reductions to DTIC's HQ staffing levels continue, reducing civilian full time equivalents (FTEs) below FY 2016 levels.
- 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 Readiness (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 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605998KA *I Management HQ - Defense Technical Information Center (DTIC)*

- IT Management/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.
- IT Help Desk/Local Area Network (LAN). Office automation supports desktop computing customers; resolves IT-related equipment or system incidents; provides assured system and network availability, info delivery, and secure IT solutions to support current and future business and mission requirements.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	4.400	-	4.400
Total Adjustments	0.000	0.000	4.400	-	4.400
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Reprogrammed from PE 0605801KA	0.000	0.000	4.400	-	4.400

Change Summary Explanation

Specific changes to the FY 2017 program (net increase of $4.400 Million from both the FY 2016 funding level and the previous PB Base) are outlined below:

- $4.400 Million was reprogrammed by the Department from the DTIC PE 0605801KA to create a new DTIC Management Headquarters PE 0605998KA. The newly established PE and accompanying funding will support the HQ staff element assigned to DTIC. FY 2017 funding reflects a reduction in civilian HQ full time equivalents (FTEs) from FY 2016 levels.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Management HQ - Defense Technical Information Center	0.000	0.000	4.400
FY 2015 Accomplishments: - N/A.			
FY 2016 Plans: - N/A.			
FY 2017 Plans: - Execute the program, activities and functions as described above in Section A, Mission Description of PE 0605998KA.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	4.400

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Technical Information Center	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605998KA *I Management HQ - Defense Technical Information Center (DTIC)*

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

N/A

F. Performance Metrics

N/A

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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

Defense Threat Reduction Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Exhibit R-1, RDT&E Programs

Defense Threat Reduction Agency

Fiscal Year 2017-2021 Budget Estimates

Appropriation: RDT&E, Defense-Wide **Date: February 2016**

OVERVIEW

The Defense Threat Reduction Agency (DTRA) safeguards the United States and its allies from global Weapons of Mass Destruction (WMD) by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission is directly aligned to strategic and operational planning guidance in the 2015 National Security Strategy, 2015 National Military Strategy, FY 2017-2021 Defense Planning Guidance, 2015-2018 Department of Defense (DoD) Agency Strategic Plan, 2014 Quadrennial Defense Review, 2014 DoD Strategy for Countering Weapons of Mass Destruction, 2014 Independent Review of the Department of Defense Nuclear Enterprise, DTRA/SCC-WMD 2015-2020 Strategic Plan, FY 2017 Budget Guidance for Countering Biological Threats Resource Priorities, 2010 Nuclear Posture Review, and the 2015 Implementation Directive for Better Buying Power 3.0.

The Research, Development, Test & Evaluation (RDT&E) budget funds research supporting DTRA's chartered responsibilities and national commitments across the chemical, biological, radiological, nuclear and high-yield explosives mission space. This research provides critical, cost-effective solutions to strategic, operational and technical challenges associated with WMD surveillance, detection, defeat, prevention, nonproliferation, counterproliferation, consequence management, and monitoring and verification.

As a strategic component of the DTRA mission to safeguard the United States and its allies from global WMD, the Basic Research Initiative balances the imperatives of unconstrained exploration, discovery and experimentation with near- and mid-term priorities arising as a result of continuously evolving threat environments. In support of this mission, the portfolio has two principle goals: (1) to facilitate innovative solutions and revolutionary technologies that transition to cost effective threat reduction capabilities; and, (2) to actively promote the development of the next generation of scientists and researchers committed to maintaining US technological superiority in achieving the Countering WMD (CWMD) mission.

The WMD Defeat Technologies applied research portfolio advances DTRA's CWMD mission by balancing the following imperatives: (1) invest in DTRA's applied research capabilities and increase the CWMD technology base to maximize future pay-off; (2) 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, (3) ensure applied research efforts are directly aligned to the mission-specific capability requirements of the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners.

The Counterproliferation Initiatives advanced technology development portfolio advances the CWMD mission by selecting initiatives that meet the following criteria: (1) transitioning technologies meet mission-specific capability requirements of the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners; (2) preliminary assessments of components and subsystems confirm the highest potential for technological feasibility, operability, and producibility upon transition out of science and technology (S&T) research; and, (3) programs demonstrate cost effectiveness or cost reduction potential during field testing or simulation at scale. Additional investment in the WMD Defeat Capabilities system development and demonstration portfolio supports International Monitoring System technology requirements under the Nuclear Arms Control Technology program. This portfolio directly supports U.S. and allied warfighter and national technical monitoring requirements and provides vital data used by the treaty monitoring community.

DTRA is committed to supporting Small Business Innovation Research and Small Business Technology Transfer programs. These programs stimulate technological innovation in the private sector, strengthen the role of small business in meeting DoD research and development needs, foster participation of minority and disadvantaged businesses in technological innovation, and increase the commercial application of DoD-supported research and development results.

DTRA rebalanced the overall Agency portfolio to align with strategic direction and minimize risk. The FY 2017 budget submission balances near term operational needs with future technical developments and capabilities. Reductions to the RDT&E portfolio impacted investment in efforts with lower return on investment, lower customer demand, or that were early in the development cycle.

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	487,802	488,817		488,817	461,305		461,305
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Basic Research	36,607	38,436		38,436	35,436		35,436
Applied Research	147,019	152,915		152,915	154,857		154,857
Advanced Technology Development	287,903	290,310		290,310	266,444		266,444
System Development And Demonstration	6,667	7,156		7,156	4,568		4,568
Management Support	9,606						
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305
Summary Recap of FYDP Programs							
Research and Development	487,802	488,817		488,817	461,305		461,305
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Basic Research	36,607	38,436		38,436	35,436		35,436
Applied Research	147,019	152,915		152,915	154,857		154,857
Advanced Technology Development	287,903	290,310		290,310	266,444		266,444
System Development And Demonstration	6,667	7,156		7,156	4,568		4,568
Management Support	9,606						
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305
Summary Recap of FYDP Programs							
Research and Development	487,802	488,817		488,817	461,305		461,305
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Defense Threat Reduction Agency	487,802	488,817		488,817	461,305		461,305
Total Research, Development, Test & Evaluation	487,802	488,817		488,817	461,305		461,305

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
1	0601000BR	DTRA Basic Research Initiative	01	36,607	38,436		38,436	35,436		35,436	U
	Basic Research			36,607	38,436		38,436	35,436		35,436	
20	0602718BR	Weapons of Mass Destruction Defeat Technologies	02	147,019	152,915		152,915	154,857		154,857	U
	Applied Research			147,019	152,915		152,915	154,857		154,857	
27	0603160BR	Counterproliferation Initiatives - Proliferation Prevention and Defeat	03	287,903	290,310		290,310	266,444		266,444	U
	Advanced Technology Development			287,903	290,310		290,310	266,444		266,444	
121	0605000BR	Weapons of Mass Destruction Defeat Capabilities	05	6,667	7,156		7,156	4,568		4,568	U
	System Development And Demonstration			6,667	7,156		7,156	4,568		4,568	
151	0605502BR	Small Business Innovation Research	06	9,606							U
	Management Support			9,606							
Total Research, Development, Test & Eval, DW				487,802	488,817		488,817	461,305		461,305	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

Defense Threat Reduction Agency
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

29 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
1	0601000BR	DTRA Basic Research Initiative	01	36,607	38,436		38,436	35,436		35,436	U
Basic Research				36,607	38,436		38,436	35,436		35,436	
20	0602718BR	Weapons of Mass Destruction Defeat Technologies	02	147,019	152,915		152,915	154,857		154,857	U
Applied Research				147,019	152,915		152,915	154,857		154,857	
27	0603160BR	Counterproliferation Initiatives - Proliferation Prevention and Defeat	03	287,903	290,310		290,310	266,444		266,444	U
Advanced Technology Development				287,903	290,310		290,310	266,444		266,444	
121	0605000BR	Weapons of Mass Destruction Defeat Capabilities	05	6,667	7,156		7,156	4,568		4,568	U
System Development And Demonstration				6,667	7,156		7,156	4,568		4,568	
151	0605502BR	Small Business Innovation Research	06	9,606							U
Management Support				9,606							
Total Defense Threat Reduction Agency				487,802	488,817		488,817	461,305		461,305	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 29, 2016 at 16:25:17

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1	01	0601000BR	DTRA Basic Research Initiative	Volume 5 - 641

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
20	02	0602718BR	WMD Defeat Technologies	Volume 5 - 647

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
27	03	0603160BR	Counterproliferation Initiatives - Proliferation, Prevention, and Defeat	Volume 5 - 679

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
121	05	0605000BR	WMD Defeat Capabilities	Volume 5 - 711

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
151	06	0605502BR	Small Business Innovation Research	Volume 5 - 725

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Program Element Title	Program Element Number	Line #	BA	Page
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DTRA Basic Research Initiative	0601000BR	1	01	Volume 5 - 641
Small Business Innovation Research	0605502BR	151	06	Volume 5 - 725
WMD Defeat Capabilities	0605000BR	121	05	Volume 5 - 711
WMD Defeat Technologies	0602718BR	20	02	Volume 5 - 647

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ACRONYMS

AA-HPRT	Analytics Hard Problem Research Team
ACES	Arms Control Enterprise System
AD	Agent Defeat
AEHF	Advanced Extremely High Frequency
AFX	Air Force Explosive
AI	Active Interrogation
AOR	Area of Responsibility
ARAT	Adversarial Route Analysis Tool
ARIEL	Autonomous Reconnaissance Infrared Electro-optical Loitering
ASIC	Application Specific Integrated Circuit
ATAC	Advanced Targeting Assessment Capability
ATD	Advanced Technology Development
AUV	Autonomous Underwater Vehicle
AWE	Atomic Weapons Establishment
BAA	Broad Agency Announcement
BDA	Battle Damage Assessment
BDI	Battle Damage Information
BLADE	BDI Link Advanced Demonstrator
BLU	Bomb, Live Unit
C4I	Command, Control, Communications, Computers, and Intelligence
CANES	Consolidated Afloat Network and Enterprise Services
CAPE	Cost Assessment and Program Evaluation
CARDS	CBRN Air-droppable Remotely Deployed Sensor System
CATTS	Cost Analysis Tool for Test Sites
C-B	Chemical-Biological
CBP	Customs and Border Protection
CBRNE	Chemical, Biological, Radiological, Nuclear, and High-yield Explosives
CCDR	Combatant Commander
CFD	Computational Fluid Dynamics
CHAMP	Counter Electronics High Power Microwave Advanced Missile Project
CJCS	Chairman, Joint Chiefs of Staff
CNDSP	Computer Network Defense Service Provider
CCMD	Combatant Command
COE	Consequence of Execution
CoE-NI	Consequence of Execution – Nuclear Integration
COI	Community of Interest
CONOPS	Concept of Operations
CONUS	Continental United States
COOP	Continuity of Operations
COP	Common Operating Picture
CP	Counter-proliferation

CPGS	Conventional Prompt Global Strike
CSM	Computational Structure Mechanics
CTBT	Comprehensive Nuclear Test Ban Treaty
CT/CP	Counterterrorism / Counterproliferation
CTS	Component Test Structure
CTTS	CBRNE Tactical Training System
C-WAC	Counter-WMD Analysis Center
CWMD	Countering Weapons of Mass Destruction
CWMD-T	Combating Weapons of Mass Destruction –Terrorism
DAPSS	Denied Area Persistent Sensor System
DEL	DTRA Experimentation Lab
DHS	Department of Homeland Security
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
DO	DISCREET OCULUS
DOE	Department of Energy
DOJ	Department of Justice
DPG	Dugway Proving Ground
DPPG	Defense Policy and Planning Guidance
DRDC	Defence Research and Development Canada
DSCS	Defense Satellite Communications System
DTRA	Defense Threat Reduction Agency
DT&E	Development, Test and Evaluation
ECBC	Edgewood Chemical Biological Center
EDTC	Engineering and Development Test 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
FEFLO	Finite Element Flow Solver
FFRDC	Federally Funded Research and Development Center
FinFets	Fin-Shaped Field Effect Transistors
FOC	Full Operational Capability
FYDP	Future Years Defense Program
GCC	Global Command and Control
GEF	Guidance for Employment of the Force
GKMC	Global Knowledge Management System
GSA	Global Situational Awareness
GSM	Global System for Mobile Communications
GUI	Graphical User Interface

HAMMER	Heated and Mobile Munitions Employing Rockets
HANE	High Altitude Nuclear Environments
HARP	High Altitude Radiological Phenomenology
HEBX	Hybridized Enhanced Blast Explosive
HEMP	High Altitude Electro Magnetic Pulse
HDBT	Hard and Deeply Buried Target
HPAC	Hazard Prediction and Assessment Capability
HPC	High Performance Computing
HPCMP	High Performance Computing Modernization Program
HTD	Hard Target Defeat
IBRD	Interagency Biological Restoration Demonstration
ICEPIC	Improved Concurrent Electromagnetic Particle-in-Cell
IED	Improvised Explosive Device
IMEA	Integrated Munitions Effects Assessment
IMS	International Monitoring System
IOC	Initial Operational Capability
IPODS	Integrated Precision Ordnance Delivery System
ISIS	Integrated Stand-off Inspection System
ISR	Intelligence, Surveillance, Reconnaissance
ISS	Integrated Sensor System
IR	Infrared
IT	Information Technology
ITD	Integrated Technology Demonstration
IWMDT	Integrated Weapons of Mass Destruction Toolset
JAIEG	Joint Atomic Information Exchange Group
JCAM	Joint Collaborative Analysis Model
JCDE	Joint Concept Development & Experimentation
JCIDS	Joint Capabilities Integration and Development System
JCTD	Joint Concept Technology Demonstration
JDAM	Joint Direct Attack Munition
JEM	Joint Effects Model
JMEWS	Joint Multi-Effects Warhead System
JSAF	Joint Semi-Automated Forces
KAFB	Kirtland Air Force Base
keV	kilo-electronvolt
LCP	Large Caliber Penetrator
LLE	Laboratory for Laser Energetics
LLNL	Lawrence Livermore National Laboratory
LTS	Large Test Structure
MACS	Modular Autonomous Countering WMD System
MASS	MILSATCOM Atmospheric Scintillation Simulator
MCNP	Monte Carlo N-Particle
MDA	Missile Defense Agency

M&S	Modeling and Simulation
MEEC	Maxwell's Equivalent Equations Circuit
MET	Modernization of Enterprise Terminals
MILSATCOM	Military Satellite Communications
MFK-R	Mobile Field Kit – Radiological
MIL STD	Military Standard
MPAS	Mission Planning and Assessment System
NACT	Nuclear Arms Control Technology
NATO	North Atlantic Treaty Organization
NAVSATCOMMFAC	Naval Satellite Communications Facility
NCNS	National Center for Nuclear Security
NCPC	National Counterproliferation Center
NIF	National Ignition Facility
NLP	Natural Language Processing
nm	nanometer
NM	Nuclear Matters
NMCC	National Military Command Center
NNSA	National Nuclear Security Administration
NNSS	Nevada National Security Site
NPS	Naval Postgraduate School
NSB	Navy Standardization Board
NSPD	National Security Presidential Directive
NST	New START Treaty
NTNF	National Technical Nuclear Forensics
NTPR	Nuclear Test Personnel Review
NuCS	Nuclear Capability Services
NWE	Nuclear Weapon Effects
NWEN	Nuclear Weapon Effects Network
NWEDS	Nuclear Weapons Effects Database System
NWRM	Nuclear Weapons Related Materiel
OCO	Overseas Contingency Operations
OCONUS	Outside the Continental United States
ODX	Operationally demonstrated/exercised
O&M	Operation and Maintenance
ORNL	Oak Ridge National Laboratory
OSD CAPE	Office of the Secretary of Defense Capability Assessment and Program Evaluation
OSD-NM	Office of the Secretary of Defense, Nuclear Matters Office (in the Office of the Assistant Secret Programs)
OSTP	Office of Science and Technology Policy
PASCC	Project on Advanced Systems and Concepts for Countering WMD
PDCALC	Probability of Damage Calculator
PDV	Product Demonstration Vehicle
PITAS	Photonuclear Inspection and Threat Analysis System

PMESII	Political, Military, Economic, Social, Infrastructure, and Information
PNAF	Prime Nuclear Airlift Forces
PPD	Presidential Policy Directive
PTS	Provisional Technical Secretariat
QDR	Quadrennial Defense Review
R2TD	Rapid Reaction Tunnel Detection
R&D	Research and Development
RadHard	Radiation Hardened
RFIS	Robust Fuzewell Instrumentation System
RHBD	Radiation Hardened by Design
RHM	Radiation Hardened Microelectronics
RL-16	US radionuclide laboratory
R/N	Radiological/Nuclear
ROM	Rough Order of Magnitude
S&T	Science & Technology
SBIR	Small Business Innovative Research
SCSP	Special Operations Command Combating Weapons of Mass Destruction-Terrorism Support Pro
SGEMP	System-Generated Electromagnetic Pulse
SHAMRC	Second-order Hydrodynamic Automatic Mesh Refinement Code
SHAPE	Supreme Headquarters Allied Powers, Europe
SHIST	Seismic Hardrock in Situ Test
SMDC	US Army Space and Missile Development Command
SNL	Sandia National Laboratory
SNM	Special Nuclear Material
SOF	Special Operations Forces
SOX	Standoff Operational Exercise
SPE	Source Physics Experiment
SPG	Short Pulse Gamma
SREMP	Source Region Electromagnetic Pulse
START	Strategic Arms Reduction Treaty
STTR	Small Business Technology Transfer
TACBRD	TransAtlantic Collaboration Biological Resiliency Demo
TB	Test Bed
TEAMS	Technical Evaluation Assessment and Monitor Site
TNF	Technical Nuclear Forensics
TOA	Total Obligation Authority
TOW	Tube-launched, Optically-tracked, Wireless-guided
TPMM	Technology Program Management Model
TRAC	Threat Reduction Advisory Committee
TRL	Technology Readiness Level
TSG	Technical Support Group
TTL	Tag, Track, Locate
TVT	Treaty Verification Technology

TWAC	Targeting and Weaponeering Analysis Cell
TXL	Transportable Xenon Laboratory
UAS	Unmanned Aerial Systems
UCP	Unified Command Plan
UGF	Underground Facility
UGT	Underground Test
UHPC	Ultra-High Performance Concrete
UK	United Kingdom
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
VAPO	Vulnerability Assessment Protection Option
VEO	Violent Extremist Organization
VOIP	Voice Over Internet Protocol
WACS	WMD Aerial Collection System
WCF	West Coast Facility
WEP	Weapon Effects Phenomenology
WESC	Weapon Effects Steering Committee
WMD	Weapons of Mass Destruction
WSMR	White Sands Missile Range

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 1: *Basic Research*					R-1 Program Element (Number/Name) PE 0601000BR / *DTRA Basic Research Initiative*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	179.420	36.607	38.436	35.436	-	35.436	38.408	38.918	39.419	40.185	Continuing	Continuing
RU: **Basic Research for Countering WMD*	179.420	36.607	38.436	35.436	-	35.436	38.408	38.918	39.419	40.185	Continuing	Continuing

Note

*Project RU title changes from Fundamental Research for Combating WMD to Basic Research for Countering WMD beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Defense Threat Reduction Agency (DTRA) Basic Research Initiative funds research across physical, material, engineering, computational, and life sciences directed toward greater knowledge and understanding of the fundamental aspects of observable phenomena associated with weapons of mass destruction (WMD).

The Basic Research Initiative is the Nation's only basic research program solely dedicated to countering weapons of mass destruction (CWMD). It provides for the discovery and development of basic knowledge by research performers comprised from academia and world-class research institutions in government and industry. This investment helps motivate the scientific community to conduct research benefiting WMD-related defense missions, advancing the body of CWMD knowledge, and improving knowledge of research efforts that benefit nonproliferation, counter proliferation, and consequence management efforts. These efforts are closely coordinated with DTRA's Chemical and Biological Technologies Department, which executes a basic research program under DoD's Chemical and Biological Defense Program.

Each year, program and technical managers conduct formal assessments of the portfolio, leveraging deep S&T expertise within DTRA, as well as from the Defense Basic Research Advisory Group, independent external panel reviews, and other CWMD-focused stakeholders. This coordination facilitates unique, CWMD-relevant basic research while eliminating unintended duplication of effort in the broader defense S&T community.

Descriptions of the technical areas covered in DTRA's Basic Research Initiative portfolio are provided in the R-2a exhibit.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency					Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 1: *Basic Research*			R-1 Program Element (Number/Name) PE 0601000BR / *DTRA Basic Research Initiative*		
B. Program Change Summary ($ in Millions)	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**
Previous President's Budget	37.778	38.436	38.783	-	38.783
Current President's Budget	36.607	38.436	35.436	-	35.436
Total Adjustments	-1.171	0.000	-3.347	-	-3.347
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.171	-			
• Realignments	-	-	-1.047	-	-1.047
• Economic Assumptions	-	-	-0.285	-	-0.285
• Other Reductions	-	-	-2.015	-	-2.015

Change Summary Explanation

The decrease in FY 2017 from the previous President's Budget submission is balance near term operational needs with future technical developments and capabilities. Other reductions were in support of Departmental efficiencies and economic assumptions. Reductions to the RDT&E portfolio impacted investment in efforts with lower return on investment, lower customer demand, or that were early in the development cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 1	R-1 Program Element (Number/Name) PE 0601000BR / *DTRA Basic Research Initiative*	Project (Number/Name) RU / **Basic Research for Countering WMD*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RU: **Basic Research for Countering WMD*	179.420	36.607	38.436	35.436	-	35.436	38.408	38.918	39.419	40.185	Continuing	Continuing

Note

*Project RU title changes from Fundamental Research for Combating WMD to Basic Research for Countering WMD beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Basic Research for Countering WMD project as the nation's only basic research solely dedicated to countering weapons of mass destruction (CWMD), is a core strategic investor in future scientific and technological progress across the full spectrum of Defense Threat Reduction Agency's (DTRA) CWMD 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 Initiative aligns with DTRA's strategic objectives that directly support policy and planning guidance from the Office of the President, the Department of Defense, 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 and reduce global nuclear dangers. Specifically, they include: accelerating the development of standoff radiological/nuclear detection capabilities; researching countermeasures and defenses to non-traditional agents; enhancing nuclear forensics; securing vulnerable materials; developing new verification technologies; developing an in-depth understanding of the capabilities, values, intent, and decision making of potential adversaries, whether they are states, networks, or individuals; defeating WMD agents; researching biologically-based and inspired materials for Department of Defense (DoD) applications; and leveraging science, technology, and innovation through domestic and international partnerships and agreements. This project solicits, coordinates, and conducts basic research aligned to five Thrust Areas. Each Thrust Area Manager coordinates an independently reviewed portfolio of research projects selected for scientific merit, technical quality, and the potential for innovation.

Thrust Area 1: Science of WMD Sensing and Recognition. This thrust area explores novel methodologies to investigate physical properties of sensitive materials as they interact with phenomena associated with WMD, such as ionizing radiation. This research provides the basis for developing capabilities to discover the presence, identity, and quantity of material or energy in the environment that may be significant, in turn providing the means to develop advanced forensic applications that enable detection, characterization, and attribution, particularly in post-detonation radiative environments.

Thrust Area 2: Network Sciences. This thrust area explores analytical, numerical, computational and other mathematical approaches to model and simulate the behavior of layered, interdependent physical networks affected by WMD. This interdisciplinary, theoretical research provides the basis for developing advanced algorithms and analytical frameworks that accurately predict and depict WMD environments by characterizing impacts and vulnerabilities, representing root causes of cascading failures, and assessing robustness, resilience, restoration, and recovery in varying degrees of disruption.

Thrust Area 3: Science for Protection. This thrust area employs experimental, computational, and theoretical approaches to explore and understand the causal mechanisms and deleterious characteristics of ionizing radiation and the tolerance, response, and resistance characteristics of affected sensitive electronic systems and

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 1	**R-1 Program Element (Number/Name)** PE 0601000BR / *DTRA Basic Research Initiative*	**Project (Number/Name)** RU / **Basic Research for Countering WMD*

microorganisms. This research provides the basis for engineering resilient systems and technologies, offering radical improvements to the survivability and performance of mission-critical electronic equipment and personnel in hostile radiative environments.

Thrust Area 4: Science to Defeat WMD. Through experimentation and computational modeling and simulation, this thrust area investigates phenomena associated with penetration physics, shock propagation and turbulence dynamics, and researches novel energetic and reactive materials for defeat of targets containing WMD. This research provides the scientific foundation necessary to develop advanced solutions for: (1) accessing WMD in hardened and deeply buried infrastructure, (2) defeating (non-nuclear) targets with minimal unintended collateral effects, and (3) predicting post-detonation (non-nuclear) weapon effects.

Thrust Area 5: Science to Secure WMD. This thrust area leverages a wide range of scientific and mathematical disciplines to explore phenomena related to physical, biological and chemical interactions with radioactive particles and waveforms. This research provides the technical basis for development of innovative, unconventional applications to improve security oversight and control of WMD materials and facilities and to improve monitoring and surveillance systems related to arms control and nonproliferation.

The increase from FY 2015 to FY 2016 maintains the investment in basic research to keep pace with inflation. The decrease from FY 2016 to FY 2017 balances near term operational needs with future technical developments and capabilities. Reductions to the RDT&E portfolio impacted investment in efforts with lower return on investment, lower customer demand, or that were early in the development cycle.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Project RU: Basic Research for Countering WMD	36.607	38.436	35.436
Description: Project RU funds the exploration and discovery of fundamental scientific knowledge related to DTRA's CWMD mission by research performers from academia, government and industry.			
FY 2015 Accomplishments: - Managed over 150 active basic research awards on a three to five year cycle. The Agency's Basic Research portfolio directly addressed specific priorities on Autonomy, Data to Decisions, Electronic Protection, and Engineered Resilient Systems. - Supported the development of the future Science, Technology, Engineering, and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories. - Conducted an annual technical review of each grant to assess scientific advancements and progress in meeting technical objectives, and to foster collaboration and build relationships within the scientific community. - Conducted an annual external panel review of the basic research program that was open to DoD research stakeholders. The panel assessed program effectiveness in the context of CWMD technical challenges, and assessed coordination of CWMD basic research across the DoD mission space and the broader basic research community to avoid unintended duplication and ensure successful partnerships. - Developed highly sensitive gravity gradiometer that can detect shielded fissile material and deeply buried structures.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 1	**R-1 Program Element (Number/Name)** PE 0601000BR / *DTRA Basic Research Initiative*	**Project (Number/Name)** RU / **Basic Research for Countering WMD*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Developed spray-on nanoparticle material that emits near-infrared light when exposed to nuclear radiation and that is detectable with Commercial Off-The-Shelf camera technology. ***FY 2016 Plans:*** - Manage over 150 active basic research awards on a three to five year cycle. The Agency's Basic Research portfolio directly addresses the DoD CWMD S&T priority and supports the specific priorities on Autonomy, Data to Decisions, Electronic Protection, and Engineered Resilient Systems. - Support the development of the future Science, Technology, Engineering, and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories. - Conduct an annual technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives and to foster collaboration and build relationships within the scientific community. - Conduct an annual external panel review of the basic research program that is open to DoD research stakeholders. The review will assess the focus and scope of the program concerning CWMD challenges and assess the coordination of CWMD basic research across the DoD mission space and the broader basic research community to avoid duplication and ensure successful partnerships. ***FY 2017 Plans:*** - Manage over 150 active basic research awards on a three to five year cycle. The Agency's Basic Research portfolio directly addresses the DoD priority on CWMD S&T and supports specific priorities on Autonomy, Data to Decisions, Electronic Protection, and Engineered Resilient Systems. - Support the development of the future Science, Technology, Engineering, and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories. - Conduct an annual technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives and to foster collaboration and build relationships within the scientific community. - Conduct an annual external panel review of the basic research program that is open to DoD research stakeholders. The panel will assess the focus and scope of the program related to CWMD challenges and will assess the coordination of CWMD basic research across the DoD mission space and the broader basic research community to avoid duplication and ensure successful partnerships.			
Accomplishments/Planned Programs Subtotals	36.607	38.436	35.436

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 1	**R-1 Program Element (Number/Name)** PE 0601000BR / *DTRA Basic Research Initiative*	**Project (Number/Name)** RU / **Basic Research for Countering WMD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• *20/0602718BR: *WMD Defeat Technologies*	-	-	-	-	-	-	-	-	-		

Remarks

*See prior year funds related to this this project in program element number 0602718BR.

D. Acquisition Strategy

Procurement methods include competitive selection awards through the DTRA's Broad Agency Announcement and collaborative funding through other organizations.

E. Performance Metrics

Project performance is measured via a combination of statistics including the number of publications generated, number of students trained in sciences and engineering supporting DoD educational goals, number of participating research organizations, and percentage of awards transitioned to other programs for further development.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*					R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	684.895	147.019	152.915	154.857	-	154.857	163.514	165.917	167.419	170.628	Continuing	Continuing
RA: *Information Sciences and Applications*	133.953	26.334	29.432	29.127	-	29.127	33.255	33.513	30.990	31.405	Continuing	Continuing
*RD: *Detection Technologies*	0.000	0.000	25.920	15.936	-	15.936	16.332	16.093	17.586	17.940	Continuing	Continuing
RE: *Counter-Terrorism Technologies*	6.714	0.963	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
*RF: *Forensics Technologies*	165.205	31.403	9.356	10.008	-	10.008	10.274	10.505	10.717	10.933	Continuing	Continuing
RG: *Defeat Technologies*	62.127	12.955	11.769	11.304	-	11.304	11.601	11.864	12.103	12.345	Continuing	Continuing
RI: *Nuclear Survivability*	77.615	20.671	29.383	34.051	-	34.051	34.553	35.261	35.978	36.698	Continuing	Continuing
RL: *Nuclear & Radiological Effects*	98.823	31.666	22.698	28.668	-	28.668	31.146	31.829	32.467	33.120	Continuing	Continuing
RM: *WMD Counterforce Technologies*	67.030	12.750	13.295	12.097	-	12.097	12.375	12.814	13.060	13.323	Continuing	Continuing
**RR: *Countering WMD Test and Evaluation*	52.118	10.277	11.062	13.666	-	13.666	13.978	14.038	14.518	14.864	Continuing	Continuing
***RU: *Basic Research for Countering WMD*	21.310	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	21.310

Note

*Project RF-Detection and Forensics Technologies subdivided into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.
**Project RR title changes from Combating WMD Test and Evaluation to Countering WMD Test and Evaluation beginning in FY 2017.
***Project RU title changes from Fundamental Research for Combating WMD to Basic Research for Countering WMD beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Defense Threat Reduction Agency (DTRA) WMD Defeat Technologies program element funds the expansion and application of basic scientific knowledge in order to develop novel materials, devices, systems, and methods supporting next generation concepts and technologies that enable advances in weapons of mass destruction (WMD) surveillance, detection, defeat, prevention, nonproliferation, counterproliferation, consequence management, and treaty verification.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*

This Applied Research portfolio is aligned with strategic planning objectives as well as with science and technology (S&T) investment direction which is established annually by DTRA and the US Strategic Command Center for Combating Weapons of Mass Destruction (SCC-WMD). The objectives directly support policy and planning guidance from the Office of the President, the Department of Defense (DoD), and the broader WMD threat reduction community.

The portfolio advances DTRA's Countering WMD (CWMD) mission by balancing the following imperatives: 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 mission-specific capability requirements of DTRA, the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	151.443	155.415	160.701	-	160.701
Current President's Budget	147.019	152.915	154.857	-	154.857
Total Adjustments	-4.424	-2.500	-5.844	-	-5.844
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.424	-			
• Realignments	-	-	2.674	-	2.674
• Economic Assumptions	-	-	-1.145	-	-1.145
• Other Reductions	-	-	-7.373	-	-7.373

Change Summary Explanation

The decrease in FY 2017 from the previous President's Budget submission is due to the net effect of increased investment in this program element for the revitalization of CWMD test capabilities, targeting support, and threat forecasting, combined with the transition of full effects modeling technology from applied research (6.2) to advanced technology development (6.3), and the balancing of near term operational needs with future technical developments and capabilities. Other reductions were in support of Departmental efficiencies and economic assumptions.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RA / *Information Sciences and Applications*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RA: *Information Sciences and Applications*	133.953	26.334	29.432	29.127	-	29.127	33.255	33.513	30.990	31.405	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Information Sciences and Applications 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) technical reachback teams. This project develops and maintains continuously improving collaborative architectures and Chemical, Biological, Radiological, Nuclear and High-yield Explosives (CBRNE) modeling & 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 Weapons of Mass Destruction (CWMD) partners. This effort also provides management and support of the Threat Reduction Advisory Committee. The committee is a senior-level Federal Advisory Committee, which provides independent expert advice on CWMD to the Secretary of Defense through the Under Secretary of Defense for Acquisition, Technology and Logistics, and the Assistant Secretary of Defense4 for Nuclear, Chemical and Biological Defense Matters. This effort also funds the Next Generation Nuclear Professionals (NextGen) activities. This is an outreach effort that encourages collaboration between those currently in the nuclear field and those who are considering entering that field. The effort consists of conferences, working groups, a debate series, publications, international outreach, an online presence, and a Nuclear Scholars effort.

The increase from FY 2015 to FY 2016 is due to increased investment in advanced analytics and modeling and simulation. The decrease from FY 2016 to FY 2017 is due to decreased investment in hazard and effects characterization and technology-driven WMD threat Forecasting.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RA: Information Sciences and Applications	26.334	29.432	29.127
Description: Project RA develops concepts and technologies in the areas of high speed information processing, modeling and simulation, signal detection, and data-driven decision analysis. ***FY 2015 Accomplishments:*** - Initiated image processing, multi-INT data fusion, and machine learning projects in collaboration with National Nuclear Security Administration Labs and Office of the Secretary of Defense-Rapid Reaction Technology Office. - Developed and transferred an integrated CBRNE effects analytics capability in support of United States Strategic Command (USSTRATCOM) Mission Planning Analysis System (MPAS). - Developed automated methods to operate DoD/Department of Homeland Security (DHS)/Department of Energy (DOE) radiation particle transport code suite on the DoD high performance computational network. - Developed enhanced geospatial models and synthetic world-wide population simulations supporting more rapid infectious disease forecasting and predictive modeling for Technical Reachback. - Developed automated input capabilities for a nuclear effects technology transfer project that will introduce nuclear effects codes into an OSD-directed campaign analysis model.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RA / *Information Sciences and Applications*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Demonstrated architecture and systems capable of highly automated fusion and dissemination of comprehensive data required to provide real-time global CWMD situational awareness. - Integrated first principle blast and nuclear fallout codes into the DoD/DHS/DOE radiation particle transport code suite. - Implemented design for a common information science and deployment environment, supporting training, operations, and mission support of CBRNE assessment for primary, secondary, and tertiary effects. - Supported the integration of natural language processing applications and configuration management capabilities into the DTRA Experimental Lab and tested for suitability of advanced features into next generation tactical and CWMD cloud architectures. - Supported two training exercises through the Joint Collaborative Analysis Model (JCAM), providing force-on-force simulation and analysis. - Supported the DTRA exploratory development and initial real-time collaborative CBRNE integrated deployment framework. - Conducted strategic analyses and assessments on emerging WMD threats using various strategic research methodologies. - Continued to manage and support the Threat Reduction Advisory Committee.			
FY 2016 Plans: - Participate in an interagency, large-scale testing series of dense gas release. Analyze data and develop models to improve atmospheric hazard predictions to enhance Consequence Management decision support. - Develop environmental degradation parameters of airborne chemical agents to better characterize collateral effects after a strike on a WMD facility. - In support of the USSTRATCOM, develop capabilities to support analysis of higher order effects, such as infrastructure and economic impacts, from nuclear targeting. - Develop high fidelity Force-on-Force (phenomenology and effects) computational modeling and simulation capabilities integrated with real and virtual sensor responses. - Leverage commercial graphical processor technologies to enable near real-time high fidelity radiation transport calculations. - Integrate new first principle high fidelity blast and nuclear fallout codes into the DoD/DHS/DOE radiation particle transport code suite. - Continue to develop and deploy automated methods to consolidate multiple geospatial terrain types into a single virtual globe capable of supporting multiple modeling and simulation platforms. - Build a CWMD sensor framework with the Night Vision Laboratory to enable real-time data fusion of deployed sensors with modeling and simulation tools. - Continue to develop and deploy mobile device-based situational awareness, mission planning, and training tools for the warfighter featuring up-to-date capabilities for route planning, force tracking, and geo-tagging items of interest. - Continue to develop, deploy, and support implementation of faster than real-time analysis code with large scale exercises in support of nuclear physical security threat and vulnerability assessments. - Develop high fidelity radiation detection trainer technologies utilizing mobile devices and augmented reality displays to enable training with virtual radiation source surrogates.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RA / *Information Sciences and Applications*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Sponsor and co-lead CBRNE topics as part of the Defense Advanced Research Projects Agency's XDATA and similar cloud computing challenges supporting the development of new data awareness and large scale anomaly detection capabilities. - Develop CWMD-Situational Awareness and data analysis/anomaly detection technology as part of a DoD Distributed Common Ground/Surface System and Intelligence Community Information Technology Enterprise compliant architectures. - Support advanced research topics including CWMD object-based intelligence, computational reasoning, and knowledge management tool development and testing. - Support research on integration of unclassified and open source data into tools and capabilities supporting "long view" shaping of the CBRNE environment prior to direct integration done in collaboration with the Department of State and Combating Terrorism Technical Support Office. - Support the rapid development of secure software and toolsets through code vulnerability analysis. - Continue activities in support of leveraging evolving Department and commercial cloud capabilities and services. - Continue to develop and mature IT capabilities in support of achieving highly automated fusion and dissemination of comprehensive data necessary for providing global CWMD situational awareness. - Continue to conduct strategic analyses and assessments on emerging WMD threats using various strategic research methodologies. - Bring scientific, technical, and social science faculty/experts together to look into the future and help understand and anticipate WMD capabilities and the technology needed to counter those capabilities. - Continue to manage and support the Threat Reduction Advisory Committee and the NextGen programs.			
FY 2017 Plans: - Initiate development of concepts and explore capabilities for enabling data collection, fusion and analysis supporting the DTRA WMD Technology Threat Forecasting program. - Continue to conduct a large-scale test series in collaboration with interagency on dense gas release and to develop models to improve atmospheric hazard predictions and consequence management. Develop enhancements and modifications to codes supporting analysis of test results. - Continue to develop and integrate a CWMD sensor framework in collaboration with the Night Vision Laboratory and Common CBRN Sensor Interface sponsors (DTRA's Nuclear Technologies and Counterterrorism Technologies Divisions, and the Joint Program Executive Office for Chemical and Biological Defense) to enable real-time data fusion of deployed sensors with modeling and simulation tools. - Continue to develop environmental degradation parameters of airborne non-traditional chemical agents to better characterize collateral effects after a strike on a WMD facility. - Continue to develop high fidelity Force-on-Force (phenomenology and effects) computational modeling and simulation capabilities integrated with real and virtual sensor responses. - Continue to develop and enhance high fidelity radiation detection training applications for use in mobile devices. - Continue to develop augmented reality displays for mobile devices to enable training with virtual radiation source surrogates.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RA / *Information Sciences and Applications*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continue to develop data anomaly detection and analysis technology as part of DoD Distributed Common Ground/Surface System and Intelligence Community Information Technology Enterprise-compliant architectures. - Continue to develop enhancements to modeling, simulation, and data architecture capabilities for analysis of higher order effects from nuclear detonation, to include physical infrastructure, political, and economic impacts. - Continue to develop automated methods to consolidate multiple geospatial terrain types into a single virtual globe capable of supporting multiple modeling and simulation platforms. - Continue to develop mobile device-based route planning, force tracking, and geo-tagging applications to support warfighter-unique CWMD missions. - Continue to develop faster-than-real-time analysis code for use in large scale nuclear physical security threat and vulnerability assessments, and conduct independent validation and verification for DoD level accreditation. - Continue to manage and support the Threat Reduction Advisory Committee. The Committee will be completing a top to bottom review of the chemical, biological and nuclear issues on the Korean Peninsula. - Continue Project on Advanced Systems and Concepts for Countering WMD through the Naval Postgraduate School, and grant 20 to 25 research awards that support CWMD efforts. - Continue NextGen activities. The effort will attempt to expand interest in the nuclear enterprise by engaging the French nuclear non-governmental organizations.			
Accomplishments/Planned Programs Subtotals	26.334	29.432	29.127

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention and Defeat*	0.250	12.244	11.422	-	11.422	11.323	12.761	13.004	13.266	Continuing	Continuing
• 151/0605502BR: *Small Business Innovation Research*	9.606	-	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the DoD and other government agency laboratories, academia, industry, and international partner organizations.

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) *RD / *Detection Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
*RD: *Detection Technologies*	0.000	0.000	25.920	15.936	-	15.936	16.332	16.093	17.586	17.940	Continuing	Continuing

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.

A. Mission Description and Budget Item Justification

The Detection Technologies mission is to conduct Research, Development, Test, & Evaluation to 1) identify, develop, and exploit signatures associated with nuclear threat enablers such as nuclear expertise, financing, or unique materials to advance U.S. capabilities to detect and interdict such threats; and 2) locate, identify, and track special nuclear material and improve detection factors such as range, time, sensitivity, or accuracy to enhance Service/Special Mission Unit capabilities. These efforts support Department of Defense (DoD) requirements for countering terrorism, counter/nonproliferation, and homeland defense.

The increase from FY 2015 to FY 2016 is due to the subdivision of Project RF-Detection and Forensics Technologies into Projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016. The decrease from FY 2016 to FY 2017 is due to reduced investment in radiation detection, nuclear threat detection intelligence, surveillance, and reconnaissance technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RD: Detection Technologies	-	25.920	15.936
Description: Project RD develops direct and indirect technologies for the detection of radiation and non-radiative signatures associated with nuclear threats, and to advance warfighter capabilities to rapidly locate, characterize, and counter such threats.			
FY 2016 Plans: - Discover/identify nuclear threat signatures, characteristics, and corresponding detection modalities and collection systems. - Develop algorithms/tools for rapidly and effectively analyzing all-source intelligence to identify nuclear threats. - Prototype systems to remotely monitor small and wide areas that may produce or contain nuclear threats. - Develop algorithms/tools to synthesize the collection and analysis of multiple nuclear threat signatures to improve assessment confidence and cuing of potential nuclear threat events. - Execute robust and operationally relevant testing and evaluation of developmental radiation detection systems to determine and select the best performing technologies and techniques for further development and transition to user groups. - Downselect sensor materials for the most effective/efficient capability and integrate into detection systems. - Downselect detection system algorithms for most effective/efficient processing and integrate into detection systems to improve user capabilities. - Research and develop advanced three-dimensional imaging technologies for high-resolution source characterization and identification to provide new and improved capabilities to detect, locate, identify, and characterize threat materials. - Investigate viability of ultra-low-power, long-duration programmable remote radiation monitoring systems.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** *RD / *Detection Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Investigate organic semiconductors and photo-detectors to improve detection system performance. ***FY 2017 Plans:*** - Continue to develop technologies to identify and catalogue nuclear threat signatures and characteristics and to formulate corresponding detection modalities and collection systems. - Continue to develop algorithms and tools for rapid analysis of all-source intelligence to identify nuclear threats. - Continue to develop initial technologies and subsystems to remotely monitor small and wide areas that may produce or contain nuclear threats. - Continue to develop algorithms and tools to synthesize the collection and analysis of multiple nuclear threat signatures in order to improve assessment confidence and cuing of potential nuclear threat events. - Continue to test and evaluate developmental radiation detection systems to identify the best performing technologies and techniques for transition to advanced technology development efforts. - Develop technologies for next generation nuclear imaging devices with neutron and dual gamma and neutron imaging capability, enabling warfighters to rapidly pinpoint and identify detected radioisotopes. - Develop technologies enabling interoperable architectures for enhanced, real-time mission analysis and common operational pictures within a shared or distributed area of operations. - Develop techniques and technologies for alternative signature detection, processing, and exploitation methods to detect and locate nuclear threats. - Develop novel detection materials and advanced Helium-3 replacement technologies into prototype radiation detection systems to increase range, sensitivity, and accuracy of detection and enable warfighters to more rapidly locate targeted material. - Develop, integrate, and demonstrate prototype radiation detection algorithms to enhance the range of detectability of targeted material.			
Accomplishments/Planned Programs Subtotals	-	25.920	15.936

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention and Defeat*	-	29.893	17.775	-	17.775	17.989	19.047	21.210	21.553	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** *RD / *Detection Technologies*

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RE / *Counter-Terrorism Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RE: *Counter-Terrorism Technologies*	6.714	0.963	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Counter-Terrorism Technologies project is an over-arching project that develops and transitions a full spectrum of new technologies to counter emergent Weapons of Mass Destruction (WMD) thus enabling warfighters to improve their ability to detect, disable, interdict, neutralize, and destroy chemical, biological, nuclear production, storage, and weaponization facilities. See paragraph C. for other program funding.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RE: Counter-Terrorism Technologies	0.963	-	-
Description: Project RE provides research and development (R&D) support to Joint U.S. Military Forces, specifically United States Special Operations Command (USSOCOM), in the areas of Explosive Ordnance Disposal Device Defeat; Counter WMD technologies for warfighters; the USSOCOM Countering WMD – Terrorism Support program, and oversight of counterproliferation R&D resources sent directly to USSOCOM for warfighter-unique counterproliferation technologies. ***FY 2015 Accomplishments:*** - Completed JASON study on Hardened and Deeply Buried Targets (HDBT). Study findings were presented in the "C-WMD/HDBT Game Changer Report" for review by the Department of Defense (DoD) Advanced Capability and Deterrence Panel. JASON is an independent group of scientists which advises the DoD and other federal agencies on science and technology matters that are mainly of a sensitive military nature.			
Accomplishments/Planned Programs Subtotals	0.963	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	105.096	104.284	102.976	-	102.976	105.522	107.530	109.729	111.960	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RE / *Counter-Terrorism Technologies*

E. Performance Metrics

Number of technologies developed and delivered, and/or proof of concept, or successful Military Utility Assessments conducted that increase the potential mission success and reduce the number of current gaps in Special Operations Forces capabilities to counter weapons of mass destruction.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) *RF / *Forensics Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
*RF: *Forensics Technologies*	165.205	31.403	9.356	10.008	-	10.008	10.274	10.505	10.717	10.933	Continuing	Continuing

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.

A. Mission Description and Budget Item Justification

The Forensics Technologies project develops post-detonation nuclear forensics technologies providing accurate, rapid and reliable means to collect, analyze, and evaluate prompt data and debris from a nuclear or radiological event in support of exploitation and attribution efforts. These forensics technologies also enable the Defense Threat Reduction Agency (DTRA) and its trusted partners to detect, locate, identify, track, and interdict nuclear and radiological threats, including weapons and material, and enablers to their acquisition and development. In accordance with Department of Defense Directive S-2060.04, DTRA serves as the US Government lead for post-detonation National Technical Nuclear Forensics (NTNF) research and development (R&D). As the central NTNF R&D coordinator, DTRA works in consultation with interagency partners to develop and improve ground-based capabilities supporting exploitation and attribution missions.

The decrease from FY 2015 to FY 2016 is due to the realignment of nuclear threat detection activities into Project RD-Detection Technologies. The increase from FY 2016 to FY 2017 reflects increased investment in nuclear device characterization for forensics and nuclear forensic materials exploitation for attribution.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RF: Forensics Technologies	31.403	9.356	10.008
Description: Project RF develops post-detonation nuclear forensics technologies providing accurate, rapid and reliable means to collect, analyze, and evaluate prompt data and debris from a nuclear or radiological event in support of exploitation and attribution efforts.			
FY 2015 Accomplishments: - Transitioned the Man-Portable Detection System, a modular radiation detector kit, to several National Guard Bureau Civil Support Teams. - Transitioned a 3" version of an elpasolite scintillator to a commercial vendor for use in radiation detection devices; commercialization provides a sustainable and affordable supply of new scintillators with combined gamma and thermal neutron detection capabilities to DoD and other federal agencies. - Delivered first iteration prototypes of ultra-low power electronics to an independent performer for testing and evaluation. - Completed initial development of two neutron detection materials as alternatives to Helium-3 neutron detectors. - Completed development of room-temperature high-resolution gamma imaging detector electronics and semiconductor materials. - Completed effort to develop the Mission Planning Tool for operators to design radiological/nuclear search missions based on available equipment, relevant concepts of operation, and anticipated threats. - Completed critical design review for Trace Element Analysis Kit development.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Completed system requirements review for the next generation Polaris gamma-ray imager (3D Polaris). - Completed experimental campaign for Photon Active Search System in an effort to conclude military utility study of active interrogation technology. - Completed development of the Radiation Signature Tagging, Tracking, and Locating system for remote monitoring of nuclear and radiological sources. - Conducted testing and evaluation of developmental radiation detection systems to determine and select the best performing technologies and techniques for further development and transition to user groups. - Developed, tested, demonstrated, and fielded prototype ground-based sensor capabilities for post-detonation prompt diagnostics under DISCREET OCULUS. - Developed, tested, demonstrated, and fielded (prototype) upgraded technical capabilities for prompt diagnostics, debris collection, sample analysis, and modeling to support technical nuclear forensics conclusions. - Continued to develop advanced three-dimensional imaging technologies for high resolution source characterization and identification to provide new and improved capabilities to detect, locate, and identify threat materials. - Led the interagency MIGHTY SABER 2015 technical nuclear forensics and attribution demonstration and evaluation of DTRA-developed prompt diagnostics and device reconstruction technologies and methodologies.			
FY 2016 Plans: - Accelerate development and evaluate the propagation of prompt diagnostics phenomenology to support the deployment of ground-based sensor capabilities in three US cities for post-detonation prompt diagnostics under the DISCREET OCULUS program. - Develop, test, and demonstrate upgraded technical capabilities for prompt diagnostics, debris collection, sample analysis, modeling to support nuclear device reconstruction, and forensics data to decrease timeline, lower uncertainties, and increase confidence in technical nuclear forensics conclusions.			
FY 2017 Plans: - Develop, test and evaluate new and improved technologies for prompt diagnostics, debris collection, data analysis, debris diagnostics, and technical capability modeling to support nuclear device reconstruction, as well as to decrease timeline, lower uncertainty, and increase confidence in technical nuclear forensics conclusions supporting attribution. - Develop, test, and evaluate new and improved technologies and processes for National Technical Nuclear Forensics validation and verification in order to decrease timeline, lower uncertainty, and increase confidence in technical nuclear forensics conclusions supporting attribution. - Investigate and develop novel concepts enabling radical reductions in the time required to reach target areas, to collect fallout debris and conduct analyses in the field, and to obtain significant forensic results and attribution conclusions. - Investigate and develop techniques and algorithms to analyze, combine and integrate speed-of-light (SoL) and speed-of-sound (SoS) phenomena in an urban environment to increase the effectiveness of nuclear detonation yield determinations.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Evaluate and expand current understanding of propagation and transport of prompt diagnostics phenomenologies (SoL, SoS) in an urban environment to support the planned deployment of ground-based sensor capabilities (US Prompt Diagnostics System). - Conduct interagency and international research evaluation events to assess process improvements and identify potential capability gaps in forensic conclusion confidence, timeliness, and accuracy. - Engage with partner nations under appropriate international agreements to improve the understanding of prompt phenomenology, improve modeling tools, and improve sensor technologies. - Expand international collaboration in the area of experiments and modeling in order to improve device reconstruction tools and analysis.			
Accomplishments/Planned Programs Subtotals	31.403	9.356	10.008

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	63.115	38.427	38.540	-	38.540	42.454	43.727	42.518	43.367	Continuing	Continuing
• 121/0605000BR: *WMD Defeat Capabilities*	6.667	7.156	4.568	-	4.568	9.092	8.714	7.782	7.938	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of Counter WMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RG / *Defeat Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RG: *Defeat Technologies*	62.127	12.955	11.769	11.304	-	11.304	11.601	11.864	12.103	12.345	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defeat Technologies project 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 Weapons of Mass Destruction (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 Countering WMD (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 the advanced technology development effort under this project. On a limited basis, technology test data is shared with coalition partners.

The decrease from FY2015 to FY2016 is due to reduced investment in next generation CWMD technologies to balance other priorities. The decrease from FY 2016 to FY 2017 is due to further reduced investment in next generation CWMD technologies to balance other priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RG: Defeat Technologies	12.955	11.769	11.304
Description: Project RG 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.			
FY 2015 Accomplishments: - Matured classified component testing. - Continued classified integration and component design. - Continued development of access denial and denial-of-use technologies for WMD targets. - Continued development and integration of concepts for exploiting susceptibility of electronics to electromagnetic fields.			
FY 2016 Plans: - Conduct static demonstration of initial capability of access denial and denial-of-use technologies against WMD representative targets. - Complete electronics susceptibility to electromagnetic fields algorithm development and characterization testing. - Downselect electromagnetic source and start system development and integration. - Continue classified component/system design and integration and conduct initial demonstrations.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RG / *Defeat Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Conduct sub-scale tests to assess capability to accurately measure WMD simulant released in a plume.			
FY 2017 Plans: - Continue classified component/system design and development. - Continue static demonstrations of access denial and denial-of-use technologies against representative WMD threats. - Conduct sub-scale tests of new standoff weapon payloads to defeat chemical and biological warfare targets. - Continue sub-scale tests to assess capability to accurately measure WMD simulant released in a plume. - Continue to develop electromagnetic source to functionally defeat WMD threats.			
Accomplishments/Planned Programs Subtotals	12.955	11.769	11.304

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention and Defeat*	29.293	22.489	20.710	-	20.710	22.355	22.752	23.227	23.707	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RI / *Nuclear Survivability*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RI: *Nuclear Survivability*	77.615	20.671	29.383	34.051	-	34.051	34.553	35.261	35.978	36.698	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Nuclear Survivability project develops 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 Department of Defense Instruction 3150.09, Chemical, Biological, Radiological, and Nuclear Survivability Policy. The Defense Threat Reduction Agency is designated by the Department of Defense (DoD) as the center of excellence for electromagnetic pulse (EMP) survivability assessments. The System Vulnerability and Assessment effort 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. The radiation hardened nano-electronics effort develops and demonstrates radiation-hardened, high-performance prototype nano-electronics to meet DoD space and strategic system requirements. Experimental Capabilities activities provide the warfighter with unique x-ray, gamma ray, and EMP test capabilities in support of system survivability development, certification, and sustainment. This effort leverages research from and coordinates with the National Nuclear Security Administration (United States) and the Atomic Weapons Establishment (United Kingdom) to develop enabling technologies for improved nuclear weapon effects experimentation capabilities. Nuclear Technology Analysis Support provides detailed planning related to policy, strategy, objectives, and programmatic integration. This project also supports international collaboration, user groups, and 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.

The increase from FY 2015 to FY 2016 is due to the realignment of system vulnerabilities and assessment activities from Project RL-Nuclear & Radiological Effects to Project RI. The increase from FY 2016 to FY 2017 is due to the net effect of increased investment in system vulnerability and assessment and nuclear weapons effects experimentation and decreased investment in radiation hardening nano-electronics.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RI: Nuclear Survivability	20.671	29.383	34.051
Description: Project RI provides the capability for DoD nuclear forces and their associated control and support systems and facilities to avoid, repel, endure, or withstand attack or other hostile action, to the extent that essential functions can continue or be resumed after the onset of hostile action.			
FY 2015 Accomplishments: - Completed 32nm Product Demonstration Vehicle. - Completed Program Manager's Handbook for Nuclear Survivability. - Delivered new warm x-ray (10-50 keV) test capability on the Double-Eagle and ZR simulators, in collaboration with Naval Research Laboratory and Sandia National Laboratories. - Initiated a <22nm Rad Hard-by-Design effort.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RI / *Nuclear Survivability*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Initiated development of maskless e-beam lithography. - Collaborated with the United Kingdom on EMP research on power grid transformers. - Upgraded the Short Pulse Gamma Facility within the West Coast Facility for hardening and validation of satellite and stockpile subsystems and components. - Explored and validated new pulsed-power neutron and dust test capabilities. - Published survivability standards in support of satellite systems, all air domain effects, and source region electromagnetic pulse environment.			
FY 2016 Plans: - Upgrade electron-beam (cold x-ray) test capability at the DTRA West Coast Facility to allow testing at 2X current capability. - Develop innovative techniques to produce 5X improvement in warm x-ray (10-50 keV) test capability for DTRA Double-Eagle simulator. - Perform a System Generated Electro-Magnetic Pulse radiation effects experiment for 2-dimensional code validation on the National Ignition Facility (NIF). - Publish MIL-STD-4023, High-Altitude Electromagnetic Pulse Protection for Maritime Assets and Comprehensive Atmospheric Nuclear Environment military standards. - Update MIL-STD-188-125-1/2, High-Altitude Electromagnetic Pulse Protection for Fixed and Transportable Facilities and Systems. - Update MIL-HDBK-423 High-Altitude Electromagnetic Pulse Protection for Fixed facilities. - Publish Aircraft High Altitude EMP Protection Handbook. - Conduct electromagnetic pulse assessments on defense critical infrastructure for electric power and telecommunications networks. - Update cost estimates to harden methodology protocols for aircraft, missile, and satellite systems. - Transition Single Event Transient research and mitigation from legacy to 32 nanoscale technology nodes. - Initiate a RadHard-by-Design development for less than 22nm commercial technology. - Transition maskless e-Beam lithography from Small Business Innovation Research project to trusted Rad Hard foundry. - Publish Satellite System Nuclear Survivability Protection Military Standard. - Initiate development of Satellite System Nuclear Survivability protection design handbook. - Initiate a low power design using one 1-D gridded design guidelines in a Rad Hard foundry.			
FY 2017 Plans: - Complete manufacture of maskless e-beam lithography tool prototype in a trusted foundry. - Develop and integrate the latest human radiation exposure models into current DTRA predictive modeling software. - Develop model to evaluate synergistic effects of nuclear weapon combined injuries. - Develop advanced warm x-ray source concepts. - Develop well-characterized x-ray test environments at the NIF.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RI / *Nuclear Survivability*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continue to develop a RadHard-by-Design microprocessor with less than 22nm commercial technology. - Evaluate High Altitude Electromagnetic Pulse (HEMP) threat survivability for Aegis Ashore-Poland and satellite communication ground facilities. - Investigate electromagnetic pulse effects on power grid transformers, as part of a collaborative research effort with the United Kingdom on critical civilian and defense infrastructure. - Provide nuclear scintillation expertise to DoD and Service Program Executive Offices (PEOs) to assist in certification of disturbed channel simulators and new survivable satellite communication systems. - Publish a surface/near-surface nuclear weapon environment military standard to assist DoD and Service PEOs. - Publish update to MIL-STD-188-125-1, HEMP Protection for Ground-Based C4I Facilities Performing Critical, Time-Urgent Missions: Part 1 Fixed Facilities. - Publish Nuclear Disturbed Communications Environment Annex to the Consolidated Afloat Networks and Enterprise Services Military Standard to assist DoD and Service PEOs.			
Accomplishments/Planned Programs Subtotals	20.671	29.383	34.051

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	5.328	6.191	6.561	-	6.561	6.658	6.738	6.863	7.002	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the DoD and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RL / *Nuclear & Radiological Effects*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RL: *Nuclear & Radiological Effects*	98.823	31.666	22.698	28.668	-	28.668	31.146	31.829	32.467	33.120	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Nuclear and Radiological Effects project develops modeling tools to: support military operational planning, weapon effects predictions, and strategic system design decisions; consolidate validated modeling tools into the Joint Information Environment 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.

The decrease from FY 2015 to FY 2016 is due to an administrative realignment of the System Vulnerability and Assessment effort to Project RI-Nuclear Survivability due to the nature of those activities. The increase from FY 2016 to FY 2017 is due to the net effect of increased investment in targeting support and decreased investment in nuclear full effects modeling.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RL: Nuclear & Radiological Effects	31.666	22.698	28.668
Description: Project RL develops nuclear and radiological assessment modeling tools to support military operational planning, weapons effects predictions, and strategic system design decisions. ***FY 2015 Accomplishments:*** - Initiated transition of improved airblast, fallout, fire and Source Region Electromagnetic Pulse models to the DTRA net-centric environment for U.S. Strategic Command (USSTRATCOM) and other nuclear targeting and consequences of execution users. - Initiated implementation of first principle modeling tools for nuclear fire initiation and spread in urban and suburban environments. - Delivered upgraded database of foreign nuclear weapon outputs for Department of Defense and the Military Services. - Developed System Generated EMP simulation codes by adapting physics capabilities of the Maxwell's Equations Equivalent Circuit code and the Improved Concurrent EM Particle-In-Cell high performance computing code. - Developed new magnetosphere experiments using microsatellites (CubeSats) for quantification of the artificial radiation belt formation and decay in order to define the source term for damage and degradation of space assets. - Completed engineering level modeling of the response of airborne systems in nuclear dust clouds, and transitioned the capability to nuclear hardness databases. - Released final draft of MIL-STD-3054 Comprehensive Atmospheric Nuclear Environment Standard (CANES) for review by DoD. - Initiated update of MIL-STD-188-125-1, High Altitude Electromagnetic Pulse Protection for Fixed Facilities. - Performed an electromagnetic pulse assessment study on a warship for the U.S. Navy. - Initiated update of MIL-HDBK-423, High Altitude Electromagnetic Pulse protection for fixed facilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Improved the Electromagnetic Reliability and Effects Prediction (EMREP) tool by adding a Source Region Electromagnetic Pulse capability. - Investigated EMP effects on power grid transformers, as part of a collaborative research effort with the United Kingdom, on critical civilian and defense infrastructure in support of the Weapons Effects Strategic Collaboration (WESC). ***FY 2016 Plans:*** - Deliver airblast, fallout, fire and Source Region Electromagnetic Pulse models to USSTRATCOM (and other nuclear targeting/ consequences of execution users) for improved nuclear targeting using nuclear effects that have not been considered in the past. - Provide improved foreign nuclear weapon outputs, environment models, and Effects Manual 1 (EM-1) chapters. - Develop System Generated Electromagnetic Pulse simulation codes by adapting physics in the Maxwell's Equations Equivalent Circuit code and the Improved Concurrent Electromagnetic Particle-In-Cell high performance computing code. - Further develop a gold standard database with selected historical nuclear weapon output and effects for use in validation of Nuclear Weapons Effects codes. - Via the Nuclear Weapons Effects Network, continue modeling economic and social consequences of nuclear detonation effects and collateral building damage due to nuclear-induced airblast, assess nuclear dust/debris effects on airborne systems, and model nuclear fire initiation, allowing these considerations to be part of the targeting analyses. - Improve high altitude nuclear effects functionality for use in analyzing satellite and missile defense response to a nuclear environment. - Continue implementation of first principle modeling tools for nuclear fire initiation and spread in urban and suburban environments. ***FY 2017 Plans:*** - Deliver initial nuclear induced fire initiation and spread modeling capability. - Develop nuclear weapons effects tools and analyses for effective targeting, including methods to evaluate the consequences of execution of a given course of action. - Develop enhanced High Altitude Radiation Phenomenology functionality for use on modern computer systems. - Develop initial weapon output spectrum extension required by missile defense systems to ensure critical systems can accomplish their designated missions when exposed to a nuclear weapons environment. - Develop a consistent, state-of-the-art combined effects methodology to ensure critical systems can accomplish their designated missions when exposed to a nuclear weapons environment. - Continue to develop an authoritative source of foreign and historical nuclear weapon outputs to aid in the development of uniform nuclear survivability standards, hardening technologies, and the experimental test capabilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Maintain a virtual interagency and international coalition combining capabilities of existing government and industry organizations into cohesive "networks" of people, knowledge, and infrastructure to synchronize research and development across the nuclear weapon effects community of interest.			
Accomplishments/Planned Programs Subtotals	31.666	22.698	28.668

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603000BR: *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	0.000	0.000	3.528	-	3.528	1.582	1.617	1.658	1.691	Continuing	Continuing
• 121/0605000BR: *WMD Defeat Capabilities*	-	-	-	-	-	-	-	-	-		

Remarks

See prior year funds related to this this project in program element number 0605000BR.

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the DoD and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of Counter WMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) RM / *WMD Counterforce Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RM: *WMD Counterforce Technologies*	67.030	12.750	13.295	12.097	-	12.097	12.375	12.814	13.060	13.323	Continuing	Continuing

A. Mission Description and Budget Item Justification

The WMD Counterforce Technologies Project develops Countering Weapons of Mass Destruction (CWMD) weapon 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 DTRA Technical Reachback cell. These activities are critical enablers for the development of advanced CWMD planning tools. Advanced Energetics develops energetic materials and weapon design technology providing advanced defeat capabilities for engaging hard and deeply buried targets that are well beyond current high explosive blast/frag warhead technology.

The increase from FY 2015 to FY 2016 reflects increased investments in advanced energetics and weapons effects modeling. The decrease from FY 2016 to FY 2017 is due to decreased investment in advanced materials and energetics to balance other priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RM: WMD Counterforce Technologies	12.750	13.295	12.097
Description: Project RM provides novel and enhanced weapons energetic materials and structures, full-scale testing of counter WMD weapon effects, weapon effects modeling, weapon delivery optimization, and technical reachback services.			
FY 2015 Accomplishments: - Developed Hybrid Enhanced Blast Explosives; demonstrated ability to embed detonator system and disperse along with the fuel to initiate cloud reaction as designed. - Conducted a large-scale test of Hybrid Enhanced Blast Explosives and reactive cases for defeat of biological agents using simulants. - Conducted modeling and testing to optimize and improve reactive case technology for use in Joint Multi-Effects Warhead System, Tube-launched, Optically-tracked, Wireless-guided bunker buster, and Hellfire warheads. - Conducted field tests to support optimization and improve effectiveness of biocidal effect fuels used in explosive formulations, innovative common data methods supporting advanced weapons of mass destruction (WMD) effects modeling, and simulation capabilities for consequence management. - Conducted lab and field tests of two new high explosive formulations for use in Conventional Prompt Global Strike warheads: one optimized for blast/fragmented, one optimized for high speed penetration warheads. - Improved hydrocodes to provide high fidelity capability to model post-detonation energy release from non-ideal detonation and other new advanced energetics systems. - Integrated weapons effects model for blast propagation through bunker walls for inventory weapons into planning tools. - Developed weapons effects debris model from bunker walls subjected to internal detonations with inventory weapons.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RM / *WMD Counterforce Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Conducted testing to validate high fidelity computational methods for predicting progressive collapse analysis of steel buildings. ***FY 2016 Plans:*** - Complete technology gap analysis for chemical/biological source term modeling. - Enhance computational fluid and structure codes for chemical/biological source term modeling. - Conduct component level, small-scale testing for chemical/biological source term modeling. - Develop fast running engineering models for dispersion of chemical/biological agents. - Test modeling of response of mega columns to near-contact charges. - Perform annual cycle of requirements collection, frontier proposals, resource allocation, and technical support through high performance computing. - Develop/demonstrate small-scale Hybrid Enhanced Blast Explosives. - Test/demonstrate Hybrid Enhanced Blast Explosives and reactive cases for simulated biological agent defeat. - Model and test reactive case technologies for Joint Multi-Effects Warhead System and various warheads. - Improve modeling capability for weapon post detonation reaction using reactive case technologies. - Improve modeling capability for agent defeat using novel weapon energetic payloads. - Conduct field tests to support optimization and improve effectiveness of explosive formulations for chemical, biological, radiological, and nuclear agent defeat. - Conduct lab and field tests of two new explosive formulations tailored (temperature, pressure, and outgases) for WMD defeat operations. ***FY 2017 Plans:*** - Demonstrate upgraded Hybrid Enhanced Blast Explosives for improved agent defeat capability. - Complete medium-scale testing of a new combined effects weapon case that provides enhanced blast and reactive fragments. - Complete scaled testing of two new explosive formulations tailored (temperature, pressure, and outgases) for WMD defeat operations. - Complete calculations and tests to develop agent defeat weapon effects models, to include phenomena and events such as dynamic pressure/fragment, agent release, thermal effects and defeat, particle shattering, agent dispersion, combustion modeling and agent fate. - Complete calculations and tests to develop hardened structure weapon effects models, to include phenomena and events such as dynamic pressure, blast propagation through failing walls, blast and fragmentation on structural elements, multi-hit penetration in high-strength concrete, bunker collapse, blast and debris environment from embedded detonation, and penetration mechanics in ultra-high performance concrete. - Complete high performance computing (HPC) requirements collection, HPC modernization program frontier proposal submission, and HPC resource allocation for improved WMD defeat modeling.			
Accomplishments/Planned Programs Subtotals	12.750	13.295	12.097

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** RM / *WMD Counterforce Technologies*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention and Defeat*	27.099	20.717	23.138	-	23.138	26.057	24.939	24.299	24.721	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) **RR / *Countering WMD Test and Evaluation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
**RR: *Countering WMD Test and Evaluation*	52.118	10.277	11.062	13.666	-	13.666	13.978	14.038	14.518	14.864	Continuing	Continuing

Note

**Project RR title changes from Combating WMD Test and Evaluation to Countering WMD Test and Evaluation beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Countering WMD Test and Evaluation project provides a unique national test bed capability for simulated Weapons of Mass Destruction (WMD) facility characterization, weapon-target interaction, and WMD facility defeat testing. The test bed facility provides structured and systematic end-to-end test event planning, preparation, management, execution, and data analysis. The test bed 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 facility leverages fifty 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 Department of Defense (DoD) and supports the counterproliferation pillar of the National Strategy to Counter WMD.

The increase from FY 2015 to FY 2016 is due to increased investment in test and technology support and the national test bed. The increase from FY 2016 to FY 2017 is due to increased investment in test and technology support to revitalize DTRA's CWMD test and evaluation capability.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RR: Countering WMD Test and Evaluation	10.277	11.062	13.666
Description: Project RR provides a unique national test bed capability for the study of weapon-target interaction, simulated WMD facility characterization, and WMD facility defeat testing to evaluate the implications of WMD and other special weapon use against U.S. military and civilian assets.			
FY 2015 Accomplishments: - Continued CWMD testing/demonstration at Nevada National Security Site to defeat credible and threat-based scenarios; continue with transition into several related projects/planned events through FY 2017. - Continued technical and testing development and demonstration of TransAtlantic Collaboration Biological Resiliency Demo, a DoD capability to shape interagency approach to counter a wide area biological event impacting U.S. and partner nations' key civilian/military infrastructure. - Continued testing in support of "Speed of Sound" nuclear forensics activities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** **RR / *Countering WMD Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Supported revitalized Weapons Effects Phenomenology efforts supporting DTRA test activities. - Continued testing in support of the Treaty Verification Technology program and Source Physics Experiment to support Comprehensive Test Ban Treaty initiatives, New START warhead verification, and detection and verification of biological and chemical weapons. - Continued support of WMD sensor testing at the Technical Evaluation Assessment and Monitor Site to detect and prevent nuclear grade material from entering the United States, U.S. territories, and Allied Nations through air, rail, and ship ports. - Continued testing chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) sensors, WMD countermeasures, remote geological sensing, and battle management systems designed for surveillance and tracking targets used for WMD activities. - Continued nuclear detection and forensics testing to prevent weapons grade material/dirty bombs from entering the United States, U.S. territories, and Allied Nations. - Continued environmental test bed remediation and compliance activities at the Nevada National Security Site, White Sands Missile Range, and Kirkland AFB in accordance with Environmental Protection Agency (EPA), safety, and environmental guidelines. Defer major demolition and restoration efforts of major test articles while ensuring they are safely closed and sealed at acceptable standards. - Maintained current inventory of infrastructure and instrumentation, extending the life-cycle of these items as long as possible to ensure test beds meet customers' advanced technology testing needs.			
FY 2016 Plans: - Begin testing at Nevada National Security Site in support of the nonproliferation portion of the National Center for Nuclear Security portfolio. - Conduct CWMD testing/demonstration at Nevada National Security Site to defeat credible and threat-based scenarios with transition into several related projects/planned events. - Continue technical and testing development/support of Transatlantic Collaborative Biological Resiliency Demonstration, a DoD capability to shape interagency approach to counter a wide area biological event impacting U.S. and partner nations' key civilian/ military infrastructure. - Perform testing in support of Treaty Verification Technology program and Source Physics Experiment to support Comprehensive Test Ban Treaty initiatives. - Continue support of WMD sensor testing at the Technical Evaluation Assessment and Monitor Site to detect and prevent nuclear grade material from entering the United States, U.S. territories, and Allied Nations through air, rail, and ship ports. - Test chemical, biological, radiological, nuclear and high explosive (CBRNE) sensors, WMD countermeasures, remote geological sensing, and battle management systems designed for surveillance and tracking targets used for WMD activities.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** **RR / *Countering WMD Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Conduct environmental remediation and compliance activities at the Nevada National Security Site, White Sands Missile Range, and Kirtland AFB in accordance with Environmental Protection Agency, safety, and environmental guidelines. Secure major demolition and restoration efforts of major test articles while ensuring they are safely closed and sealed at acceptable standards. - Continue to maintain current inventory of infrastructure and instrumentation, extending the life-cycle of these items as long as possible, to ensure test beds meet customers' advanced technology testing needs. - Continue to document, prioritize, and support test infrastructure requirements. - Conduct collection campaigns with interagency participation specific to relevant CWMD data collection requirements. ***FY 2017 Plans:*** - Develop and test CBRNE sensors, WMD countermeasures, remote geological sensing, and battle management systems designed for surveillance and tracking of WMD targets. - Continue to develop technical and testing capabilities in support of the Transatlantic Collaborative Biological Resiliency Demonstration, a DoD effort to shape interagency approaches to counter a wide area biological event. - Continue testing at the Nevada National Security Site in support of the nonproliferation portion of the National Center for Nuclear Security portfolio. - Continue WMD sensor testing at the Technical Evaluation Assessment and Monitoring site to develop capabilities for detection of nuclear grade material. - Conduct Special Project CWMD testing and demonstrations at the Nevada National Security Site to defeat credible and threat-based scenarios with transition into several related projects/planned events. - Continue environmental remediation and compliance activities at New Mexico and Nevada test sites to meet federal and state environmental guidelines. Remediate major test articles within acceptable standards. - Conduct collection campaigns with interagency participation specific to warfighter CWMD data requirements. - Design diagnostics and instrumentation in support of the Department of Energy and National Laboratories Treaty Verification Technology program and Source Physics Experiment to support Comprehensive Test Ban Treaty initiatives. - Provide required test planning, design, execution, and reporting to ensure the successful execution of the DTRA Agent Defeat Warfighter Capability Strategic Initiative. - Reconstitute and sustain the current inventory of research, development, test and evaluation infrastructure and instrumentation.			
Accomplishments/Planned Programs Subtotals	10.277	11.062	13.666

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** **RR / *Countering WMD Test and Evaluation*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	12.150	-	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill science and technology development needs. Performer base includes best-of-breed researchers across the DoD and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of CWMD technologies selected for transition to advanced technology development (6.3) and advanced component development and prototypes (6.4).

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 0602718BR / *WMD Defeat Technologies*	Project (Number/Name) ***RU / *Basic Research for Countering WMD*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
***RU: *Basic Research for Countering WMD*	21.310	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	21.310

Note

***Project RU title changes from Fundamental Research for Combating WMD to Basic Research for Countering WMD beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Basic Research for Countering Weapons of Mass Destruction (CWMD) project conducts technology reviews of the Defense Threat Reduction Agency's (DTRA's) Basic Research Program to identify promising emerging science with potential to be matured into CWMD technologies. The advancement of technology and science into applied technology development efforts focuses upon increasing the stability and utility of mid-to-long term, moderate risk but high payoff science, and emerging technologies for transition to other DTRA applied technology programs. This effort serves as the bridge between the bench scientist and the applied technologist.

Activities in this project are complete.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RU: Basic Research for Countering WMD ***Description:*** This project provides (1) strategic studies to support the Department of Defense (DoD), (2) decision support tools and analysis to support CWMD research and development investments, and (3) early applied research for technology development. ***FY 2015 Accomplishments:*** N/A	0.000	-	-
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 1/0601000BR: *DTRA Basic Research Initiative*	36.607	38.436	35.436	-	35.436	38.408	38.918	39.419	40.185	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 0602718BR / *WMD Defeat Technologies*	**Project (Number/Name)** ***RU / *Basic Research for Countering WMD*

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 Department of Energy National Laboratories.

E. Performance Metrics

Project performance is measured via a combination of statistics including the number of publications generated, number of students trained in sciences and engineering supporting DoD's educational goals, number of participating research organizations, and the percentage of participating universities on the U.S. News & World Report "Best Colleges" list. Additional performance indicators include the publication of an annual basic research technical and external programmatic review report. Each study/project will commence within three months of customer's requests and results delivered within three months of completion.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	1,111.083	287.903	290.310	266.444	-	266.444	259.490	265.359	269.287	274.594	Continuing	Continuing
RA: *Information Sciences and Applications*	21.282	0.250	12.244	11.422	-	11.422	11.323	12.761	13.004	13.266	Continuing	Continuing
*RD: *Detection Technologies*	0.000	0.000	29.893	17.775	-	17.775	17.989	19.047	21.210	21.553	Continuing	Continuing
RE: *Counter-Terrorism Technologies*	446.219	105.096	104.284	102.976	-	102.976	105.522	107.530	109.729	111.960	Continuing	Continuing
*RF: *Forensics Technologies*	293.702	63.115	38.427	38.540	-	38.540	42.454	43.727	42.518	43.367	Continuing	Continuing
RG: *Defeat Technologies*	65.774	29.293	22.489	20.710	-	20.710	22.355	22.752	23.227	23.707	Continuing	Continuing
RI: *Nuclear Survivability*	32.580	5.328	6.191	6.561	-	6.561	6.658	6.738	6.863	7.002	Continuing	Continuing
RL: *Nuclear & Radiological Effects*	-	0.000	0.000	3.528	-	3.528	1.582	1.617	1.658	1.691	Continuing	Continuing
RM: *WMD Counterforce Technologies*	104.036	27.099	20.717	23.138	-	23.138	26.057	24.939	24.299	24.721	Continuing	Continuing
**RR: *Countering WMD Test and Evaluation*	1.902	12.150	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RT: *Target Assessment Technologies*	145.588	45.572	56.065	41.794	-	41.794	25.550	26.248	26.779	27.327	Continuing	Continuing

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.
**Project RR title changes from Combating WMD Test and Evaluation to Countering WMD Test and Evaluation beginning in FY 2017.

A. Mission Description and Budget Item Justification

The Defense Threat Reduction Agency (DTRA) Counterproliferation Initiatives - Proliferation, Prevention, and Defeat program element funds the development and testing of subsystems and components for integration into prototype systems with the potential to transition into mature, state-of-the-art weapons of mass destruction (WMD) surveillance, detection, defeat, prevention, nonproliferation, counterproliferation, consequence management, and treaty verification capabilities.

The Counterproliferation Initiatives - Proliferation, Prevention, and Defeat portfolio is aligned with strategic planning objectives as well as with science and technology (S&T) investment direction which is established annually by DTRA and the US Strategic Command Center for Combating Weapons of Mass Destruction (SCC-WMD).

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*

The objectives directly support policy and planning guidance from the Office of the President, the Department of Defense (DoD), and the broader 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	291.694	290.654	283.236	-	283.236
Current President's Budget	287.903	290.310	266.444	-	266.444
Total Adjustments	-3.791	-0.344	-16.792	-	-16.792
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.791	-			
• Realignments	-	-	-10.600	-	-10.600
• FFRDC & Economic Assumptions	-	-0.344	-2.155	-	-2.155
• Other Reductions	-	-	-4.037	-	-4.037

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: RG: *Defeat Technologies*		
Congressional Add: *Technology Solutions Supporting Operations in Subterranean Environments*	8.000	-
Congressional Add Subtotals for Project: RG	8.000	-
Congressional Add Totals for all Projects	8.000	-

Change Summary Explanation

The decrease in FY 2017 from the previous President's Budget submission is due to the net effect of the transition of full effects modeling technology from applied research (6.2) to advanced technology development (6.3), decreased investment in detection technologies in (6.3) to fund increased investment in targeting support, and threat forecasting in (6.2). This is part of an overall Agency rebalancing of near term operational needs with future technical developments and

capabilities. Other reductions were in support of Departmental efficiencies, Federally Funded Research and Development Centers (FFRDC), and economic assumptions. Reductions to the RDT&E portfolio impacted investment in efforts with lower return on investment, lower customer demand, or that were early in the development cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	Project (Number/Name) RA / *Information Sciences and Applications*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RA: *Information Sciences and Applications*	21.282	0.250	12.244	11.422	-	11.422	11.323	12.761	13.004	13.266	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Information Sciences and Applications project provides technical expertise and reach-back 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.

The increase from FY 2015 to FY 2016 is due to the realignment of funding for Technical Reachback from Project RM to Project RA-Information Sciences and Applications. The decrease from FY 2016 to FY 2017 is due to the net effect of increased investment in hazard and effects characterization and decreased investment in technical reachback.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RA: Information Sciences and Applications	0.250	12.244	11.422
Description: Project RA develops modeling and simulation capabilities and provides technical reachback support to maintain and increase decision advantage for the United States and its allies through improved situational understanding across the complete CWMD mission space.			
FY 2015 Accomplishments: - Provided for upward obligation adjustments supporting contract closeout efforts.			
FY 2016 Plans: - Continue development of global synthetic population and activity database for modeling secondary and tertiary effects using agent-based, socially coupled simulations to enable rapid modeling of infectious disease propagation and impacts of population behaviors and movement after a WMD event. - Develop detailed models of specified nuclear facilities to analyze vulnerabilities and estimate hazards.			
FY 2017 Plans: - Continue to develop the global synthetic population and activity database for modeling infectious disease propagation and impacts of population behaviors and movement after a WMD event. - Continue to develop detailed models of specified nuclear facilities to analyze vulnerabilities and estimate hazards.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RA / *Information Sciences and Applications*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Enhance 64-bit version of CWMD modeling and simulation planning tools for analysis of large data sets.			
Accomplishments/Planned Programs Subtotals	0.250	12.244	11.422

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	26.334	29.432	29.127	-	29.127	33.255	33.513	30.990	31.405	Continuing	Continuing
• 151/0605502BR: *Small Business Innovation Research*	9.606	-	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	Project (Number/Name) *RD / *Detection Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
*RD: *Detection Technologies*	0.000	0.000	29.893	17.775	-	17.775	17.989	19.047	21.210	21.553	Continuing	Continuing

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.

A. Mission Description and Budget Item Justification

The Detection Technologies project continues research formerly conducted under project RF. This project develops, integrates and transitions advanced concepts, technologies and subsystems enabling enhanced nuclear and radiological location, identification, and tracking capabilities. Leveraging gains made in applied research efforts, this project produces advancements in range, process time, sensitivity and accuracy. In addition, this project continues the development of novel concepts and technologies enabling the identification and exploitation of non-radiation based signatures associated with nuclear threats (e.g., transportation of nuclear materials, patterns of activity, or unique materials).

The increase from FY 2015 to FY 2016 is due to the subdivision of Project RF-Detection and Forensics Technologies into projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016. The decrease from FY 2016 to FY 2017 is due to decreased investment in radiation detection and nuclear threat detection intelligence, surveillance and reconnaissance technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RD: Detection Technologies	-	29.893	17.775
Description: 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.			
FY 2016 Plans: - Analyze nuclear threat signatures to improve or integrate their collection into sensor systems. - Integrate nuclear threat analysis algorithms into existing systems to test and evaluate their effectiveness in reducing processing time. - Demonstrate, test, and field systems to remotely monitor small and wide areas which may produce or contain nuclear threats. - Design and fabricate prototype passive detection systems for determining the location and signature of nuclear material and test and characterize developmental prototype passive detection systems. - Improve performance of new detector materials; imaging and spectroscopy systems; and signals analysis methods through rigorous laboratory and field testing. - Integrate advances in materials science into lightweight, high-resolution radiation spectrometers for use in field operations.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RD / *Detection Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Transition near-term technologies to generate prototypes and design packages that will assist operational users. - Conduct advanced/operational testing and evaluation of radiation detection systems to assess their performance. - Develop and build a new high resolution detector with reduced weight and improved form factors that can be concealed in container consistent with the operational environment. - Integrate new cellular technology into the Radiological/Nuclear (R/N) search network to ensure rapid flow of data from detectors. - Exploit the prototype testing of Oak Ridge National Laboratory to develop an operationally useful roadside detector capable of detecting nuclear material in moving vehicles. - Test and evaluate the integration of high resolution detectors with lower resolution detectors to determine the potential to meet threshold R/N detection requirements. ***FY 2017 Plans:*** - Continue to develop and integrate nuclear and radiological signature collections into new sensor systems. - Continue to integrate nuclear threat analysis algorithms into existing systems in order to evaluate accuracy and effectiveness in reducing process time. - Continue to demonstrate, test, and transition systems that remotely monitor nuclear and radiological threat signatures in small and wide areas. - Continue to develop high-fidelity radiation test objects supporting advanced assessment capabilities in order to improve radiation detection prototypes. - Continue to develop, test, and evaluate a hand-held radiation monitor replacement providing radioisotope identification capability and real-time information feed. - Develop and deploy devices enabling low cost operational testing and evaluation of radiation signature detectors against mock special nuclear material sources of interest. - Develop and integrate interoperable systems enabling a true common operational picture among nuclear and radiological search teams, across platforms, and within shared or distributed areas. - Test and evaluate new radiation detection technologies in order to validate capabilities, improve prototypes, and provide required performance data to support follow-on development. - Test and evaluate an operational high resolution gamma-ray imager suited for multiple mission sets to support integration with next generation nuclear imaging systems. - Simulate and evaluate loose nuke scenarios in order to validate nuclear threat mitigation plans developed by Department of Defense and civilian users.			
Accomplishments/Planned Programs Subtotals	-	29.893	17.775

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RD / *Detection Technologies*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	-	25.920	15.936	-	15.936	16.332	16.093	17.586	17.940	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RE / *Counter-Terrorism Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RE: *Counter-Terrorism Technologies*	446.219	105.096	104.284	102.976	-	102.976	105.522	107.530	109.729	111.960	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Counter-Terrorism Technologies project develops and transitions a full spectrum of new technologies to counter emergent weapons of mass destruction (WMD) threats. This project supports the U.S. Special Operations Command (USSOCOM) in two research areas: (1) Countering WMD-Terrorism (CWMD-T) Counterproliferation Research and Development is a collaborative effort to develop advanced, warfighter-unique technologies to defeat terrorist WMD development/ acquisition pathways, to include defeat of the devices themselves, while minimizing risks to U.S. forces; (2) USSOCOM CWMD-T Support develops concepts and technologies to integrate and synchronize operations and activities that prevent terrorists 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.

The decrease from FY 2015 to FY 2016 is due to the deferment of lower priority projects until further maturation in the technology readiness level. The decrease from FY 2016 to FY 2017 is due to reduced investment in next generation CWMD technologies to balance other priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RE: Counter-Terrorism Technologies	105.096	104.284	102.976
Description: Project RE supports Joint U.S. Military Forces, specifically USSOCOM, in the research areas of warfighter-unique, mission-specific WMD defeat, denial, counterproliferation and interdiction technologies. ***FY 2015 Accomplishments:*** - Continued planned development and transition of new counterproliferation technologies for Joint U.S. Military Forces to counter WMD, enabling warfighters to improve their ability to detect, disable, interdict, neutralize, and destroy chemical, biological, and nuclear production, storage, and weaponization facilities. - Continued work on successive multi-year efforts to develop high fidelity test articles and enhanced electronic test objects for the Explosive Ordnance Disposal (EOD) Device Defeat. - Developed impeded tools for IED triggers. - Continued to support Combatant Commanders' planning efforts related to countering terrorist use of Weapons of Mass Destruction (CWMD-T). - Continued multi-year efforts to develop and transition innovative CWMD tools designed to locate, identify, characterize, assess, and attack WMD production and storage facilities with minimal-to-no collateral damage or loss of life. - Developed precision shaped charges using a proven manufacturing process through the use or modification of an existing shaped charge design.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RE / *Counter-Terrorism Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Transitioned next generation imaging technologies to allow EOD forces advanced diagnostic capabilities. - Completed evaluation of a baseline system for extracting events related to WMD pathway models. This system will support Natural Language Processing and Machine Reading capabilities for knowledge discovery in the data/information pipeline for Combatant Command CWMD analysis and planning. - Developed Streaming Cloud Analytics Platform (SCALPL) for WMD Pathway model viewing and extraction of information to the knowledge base--integration into the system awaits Information Assurance approval for deployment on the Joint Worldwide Intelligence Communications System (JWICS). - Established collaborative development of the Dynamic Picture of the Operating Environment (DPOE) using the DTRA Experimental Lab (DEL) as the testbed for unclassified systems evaluation through a remotely accessible virtual private network. - Initiated development of a Bayesian Network model to predict intention by non-state actors to use chemical or biological weapons.			
FY 2016 Plans: - Continue other planned development and transition of new counterproliferation technologies for Joint U.S. Military Forces to counter WMD, enabling warfighters to improve their ability to detect, disable, interdict, neutralize, and destroy chemical, biological, and nuclear production, storage, and weaponization facilities. - Continue work on successive multi-year efforts to develop high fidelity test articles and enhanced electronic test objects for EOD Device Defeat. - Develop tools used to impede IED triggers and conduct render safe diagnostics validation tests on emergent threat articles. - Continue to support Combatant Commanders' planning efforts related to CWMD-T - Continue multi-year efforts to develop and transition innovative CWMD tools designed to locate, identify, characterize, assess, and attack WMD production and storage facilities with minimal-to-no collateral damage or loss of life. - Build precision shaped charges using a proven manufacturing process through the use or modification of an existing shaped charge design. - Transition next generation imaging technologies to allow EOD forces advanced diagnostic capabilities. - Begin exploration and application of techniques to extract information from audio, photographic, and videographic files. - Apply rational choice and game theory constructs to prototype advanced Bayesian models.			
FY 2017 Plans: - Integrate enhancements in Natural Language Processing and Machine Reading capabilities into JWICS knowledge management and planning tools. - Integrate, test and deploy socio-cultural and behavioral factor data into the Intent Model to enhance threat prediction capabilities. - Develop applications enabling seamless information sharing between the USSOCOM CWMD Support Program (SCSP) and other intelligence agency databases.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RE / *Counter-Terrorism Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Develop customizable dashboards displaying user-driven data displays and functionality on the SCSP JWICS portal. - Continue to support Combatant Command exercises and planning events in order to enhance existing SCSP tools and databases, and to identify and validate new requirements. - Continue to monitor and collaborate with other agencies, such as the Defense Advanced Research Projects Agency and the Intelligence Advanced Research Projects Agency, on advanced analytics technologies.			
Accomplishments/Planned Programs Subtotals	105.096	104.284	102.976

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	0.963	-	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RF / *Forensics Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
*RF: *Forensics Technologies*	293.702	63.115	38.427	38.540	-	38.540	42.454	43.727	42.518	43.367	Continuing	Continuing

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016.

A. Mission Description and Budget Item Justification

The Forensics Technologies project develops, integrates, tests and demonstrates post-detonation nuclear forensics systems providing accurate, rapid and reliable means to collect, analyze, and evaluate prompt data and debris from a nuclear or radiological event in support of exploitation and attribution efforts. These forensic capabilities enable the Defense Threat Reduction Agency (DTRA) and its trusted partners to detect, locate, identify, track, and interdict nuclear and radiological threats, including weapons and material, and enablers to their acquisition and development. In accordance with DoD Directive S-2060.04, DTRA serves as the US Government lead for post-detonation National Technical Nuclear Forensics (NTNF) research and development (R&D). As the central NTNF R&D coordinator, DTRA works in consultation with interagency partners to develop and improve ground-based capabilities supporting exploitation and attribution missions. NTNF R&D supports advanced research in the following areas: (1) prompt nuclear effects exploitation for attribution; (2) nuclear device characterization for forensics; (3) nuclear forensic materials exploitation for attribution.

The decrease from FY 2015 to FY 2016 in Project RF is due to the realignment of nuclear threat detection activities into Project RD-Detection Technologies.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RF: Forensics Technologies	63.115	38.427	38.540
Description: Project RF supports nuclear forensics by developing: (1) technologies, systems and procedures for post detonation nuclear forensics; (2) on/off-site analysis to meet forensic, verification, monitoring and confidence-building requirements; (3) technologies to detect, locate, identify, track, and interdict nuclear and radiological threats, including enablers to their acquisition and development.			
FY 2015 Accomplishments: - Identified all-source nuclear threat signatures, characteristics, and corresponding detection modalities; continued the identification and development of the proper tipping, queuing, and data fusion techniques and algorithms to enable the rapid and effective accumulation of all-source intelligence on nuclear threat scenarios. - Designed and fabricated prototype passive detection systems for determining the location and signature of nuclear material; test and characterize developmental prototype passive detection systems. - Initiated integration of recent advances in materials science into lightweight, high-resolution radiation spectrometers for use in field operations.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Developed, demonstrated, and fielded methods to remotely monitor small and wide areas which may contain nuclear threats. - Developed advanced three-dimensional imaging technologies for high resolution source characterization and identification to provide new and improved capabilities to detect, locate, identify, and characterize threat materials. - Initiated transition of multiple near term technologies to generate prototypes and design packages to assist operational users. - Conducted advanced and operational testing and evaluation of radiation detection systems. - Initiated design, development, and fabrication of new radiological test objects. - Improved performance of new detector materials, imaging and spectroscopy systems, and signals analysis methods through rigorous laboratory and field testing. - Developed, tested, evaluated, and delivered software tools and capabilities to locate and identify the signatures of Special Nuclear Materials on both existing and newly developed hardware platforms. - Continued development, accelerate development where appropriate, demonstrate, and field methods to remotely monitor small and wide areas which may contain nuclear threats. - Developed, tested, demonstrated, and fielded prototype ground-based sensor capabilities for post-detonation prompt diagnostics under DISCREET OCULUS. - Completed installation of prompt diagnostics systems in a second U.S. city. - Continued to develop, test, demonstrate, and field (prototype) upgraded technical capabilities for prompt diagnostics, debris collection, sample analysis, modeling to support nuclear device reconstruction, and forensics data to decrease timeline, lower uncertainties, and increase confidence in technical nuclear forensics conclusions. - Continued near-source strong-motion small-scale tests and high fidelity analyses for detection and identification of low yield and evasive testing. - Developed modular prototype using advanced materials for particulate and gaseous radionuclides detection of evasive testing in support of U.S. and international treaty monitoring requirements. - Provided science and technology development to support onsite inspections. - Transitioned wide area search modular prototypes into an operational configuration to replace the current systems. - Transitioned software improvements to current R/N detector technologies. - Transitioned selected ship search capabilities into an operational configuration for fielding to the Technical Support Groups. - Continued to enhance Countering WMD (CWMD) network technologies by exploiting the operational advantages of DoD's cellular communications program. - Continued to expand non-radiological sensor support for R/N search operations. - Expanded the development of CWMD/Technical Support Group training technologies for R/N search equipment. - Completed the documentation for a JROC approved Radiological/Nuclear modernization program. - Selected a wide area search modular design and developed the operational configuration to replace the current systems. - Implemented 1st generation software improvements to current R/N detector technologies.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Completed final operational configuration for ship search detectors and initiated maritime evaluation for final fielding decision.			
FY 2016 Plans:			
- Complete development, test, demonstration, and fielding of prototype ground-based sensor capabilities in three U.S. cities for post-detonation prompt diagnostics under DISCREET OCULUS.			
- Continue to develop, test, demonstrate, and field (prototype) upgraded technical capabilities for prompt diagnostics, debris collection, sample analysis, modeling to support nuclear device reconstruction, and forensics data to decrease timeline, lower uncertainties, and increase confidence in technical nuclear forensics conclusions.			
- Continue to develop tools based on near-source small-scale strong-motion science to assist detection and characterization of low yield and evasive testing.			
- Conduct additional laboratory experiments with lasers to assess shock/seismic signatures from underground nuclear tests.			
- Develop international technical partnership for high explosive test calibration of seismic and infrasound elements of international monitoring stations.			
- Develop and flight-certify a modular prototype using advanced materials and techniques to collect and detect gaseous radionuclide signatures of evasive nuclear testing.			
- Develop long-term, optimal, integrated and operational solutions to detect, collect, and analyze gas and radionuclide signatures of nuclear testing.			
- Develop prototype cosmic-ray muon imaging solution for standoff detection of nuclear warheads in storage or deployed on strategic launch and delivery systems that could lead to adoption of this technology for verification of future Strategic Arms Reduction Treaties.			
- Validate alternate signatures of nuclear weapons testing and develop measurement techniques.			
- Evaluate advanced methods to better integrate the collection, detection, and analysis of low-yield or evasive nuclear weapons testing signatures.			
- Provide technical support for implementation and compliance with the Open Skies Treaty.			
- Develop infrastructure and capability for iterative testing, refinement, and integration of national monitoring capabilities.			
- Test and evaluate prototype version of the Knowledge Management Strategic Information System software for future Strategic Arms Reduction Treaty and other treaty database and notification needs.			
- Enhance the on-site inspection system and virtual training tool with additional operational scenarios for nuclear materials production monitoring in support of the Fissile Material Cutoff Treaty and the Army nuclear disablement/elimination mission.			
- Stand up National Monitoring and Verification test-bed ensemble for iterative tool and method testing and refinement.			
FY 2017 Plans:			
- Complete initial operational assessment of advanced prompt diagnostics for ground-based sensor prototype systems.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Complete plans and carry out associated acquisition activities for the transition of advanced prompt diagnostics sensor prototype systems to the US Prompt Diagnostics System. - Demonstrate advanced technologies for the collection of alternative nuclear detonation signatures, such as electromagnetic pulse and transient ionospheric disturbances, to detect and locate clandestine nuclear testing. - Demonstrate advanced technologies for cosmic ray, muon-excited remote counting of nuclear warheads in delivery vehicles and in storage, supporting treaty monitoring and verification. - Develop, test and demonstrate a portable ground-based sensor prototype for post-detonation prompt diagnostics under DISCREET OCULUS. - Develop, test and demonstrate enhanced prototype technologies for prompt diagnostics, debris collection, data analysis, debris diagnostics, and technical capability modeling to support nuclear device reconstruction and attribution, as well as to decrease timeline, lower uncertainty, and increase confidence in technical nuclear forensics conclusions supporting attribution. - Develop, test and demonstrate enhanced prototype technologies to support validation and verification processes and capabilities in order to decrease timeline, lower uncertainty, and increase confidence in technical nuclear forensics conclusions supporting attribution. - Develop, evaluate and demonstrate surrogate debris materials used in validation and verification technologies and in field and fixed laboratory analytic processes. - Develop advanced radionuclide gas collection technologies in support of counterproliferation and compliance verification for the Non-Proliferation Treaty and the Comprehensive Test Ban Treaty. - Develop advanced technologies to detect and monitor for low-yield nuclear tests, including novel techniques for collecting and observing material emissions and source region seismic signatures. - Continue to develop new prompt diagnostic technologies to improve sensor portability, with emphasis on size, weight and power consumption reduction, and on expanded operational capability. - Prepare and conduct an interagency technology demonstration of end-to-end nuclear forensics capabilities. - Prepare an international technical demonstration of post-detonation nuclear forensics research and development capabilities. - Coordinate with partner nations to improve global US nuclear forensics and attribution capabilities, under appropriate international agreements. - Integrate nuclear threat analysis algorithms into existing systems to test and evaluate their effectiveness in reducing processing time. - Demonstrate, test, and field systems to remotely monitor small and wide areas which may produce or contain nuclear threats. - Design and fabricate prototype passive detection systems for determining the location and signature of nuclear material and test and characterize developmental prototype passive detection systems. - Transition near-term technologies to generate prototypes and design packages that will assist operational users. - Conduct advanced/operational testing and evaluation of radiation detection systems to assess their performance.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** *RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Develop and build a new high resolution detector with reduced weight and improved form factors that can be concealed in container consistent with the operational environment. - Integrate new cellular technology into the R/N search network to ensure rapid flow of data from detectors. - Test and evaluate the integration of high resolution detectors with lower resolution detectors to determine the potential to meet threshold R/N detection requirements.			
Accomplishments/Planned Programs Subtotals	63.115	38.427	38.540

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	31.403	9.356	10.008	-	10.008	10.274	10.505	10.717	10.933	Continuing	Continuing
• 121/0605000BR: *WMD Defeat Capabilities*	6.667	7.156	4.568	-	4.568	9.092	8.714	7.782	7.938	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RG / *Defeat Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RG: *Defeat Technologies*	65.774	29.293	22.489	20.710	-	20.710	22.355	22.752	23.227	23.707	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defeat Technologies project 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.

The decrease from FY 2015 to FY 2016 is due to the relative effect of the increased investment in FY 2015 as a result of the Congressional Add for Technology Solutions Supporting Operations in Subterranean Environments. This investment was realigned during FY 2015 from Project RE-Counter-Terrorism Technologies to better reflect the nature of the investment. The decrease from FY 2016 to FY 2017 is due to decreased investment in next generation CWMD technologies to balance other priorities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RG: Defeat Technologies	21.293	22.489	20.710
Description: Project RG develops advanced technologies and weapon concepts and validates their applicability to CWMD.			
FY 2015 Accomplishments: - Continued to develop access denial or denial-of-use technologies for WMD targets. - Initiated Next Generation CWMD weapon design. - Initiated sub-scale lethality tests for Next Generation Agent Defeat weapon. - Continued work on functional defeat test-bed with initial test events.			
FY 2016 Plans: - Manufacture initial Next Generation CWMD weapon components and sub-systems and conduct sub-system and initial full scale static test. - Continue development of access denial or denial-of-use technologies for CWMD applications.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RG / *Defeat Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continue functional defeat system development and testing. - Conduct Modular Autonomous CWMD System (MACS) follow-on incremental component/system demonstration. - Conduct functional defeat system demonstration. - Transition initial MACS concept to Military Services/Combatant Commanders. - Develop and integrate MACS Family of System Enabling Technologies. - Plan MACS Family of Systems component demonstration. - Mature diagnostic capability to meet emerging needs and field improved capabilities for agent defeat. - Initiate Heated and Mobile Munitions Employing Rockets (HAMMER) Subsystem Test. - Complete HAMMER Weapon Design. ***FY 2017 Plans:*** - Conduct static tests of full-scale HAMMER weapon system and initiate preparation for full-scale dynamic tests in FY 2018. - Conduct static demonstration of initial capability of access denial and denial-of-use technologies against WMD representative targets. - Initiate Agent Defeat Penetrator weapon system design effort. - Initiate access denial weapon concept design effort. - Continue to develop and integrate classified component and system designs. Prepare to conduct initial demonstrations. - Continue to develop and test functional defeat system. - Continue to develop and test diagnostic capability to meet emerging needs for agent defeat.			
Accomplishments/Planned Programs Subtotals	21.293	22.489	20.710

	FY 2015	FY 2016
Congressional Add: Technology Solutions Supporting Operations in Subterranean Environments	8.000	-
FY 2015 Accomplishments: - Formed IPTs and finalized requirements definition in preparation for FY 2016 prototype development and planned demonstrations. - Demonstrated the ability of robotic air and ground platforms to independently collect and deliver data to a collaborative platform to characterize a subterranean environment. - Developed prototype communications package to enable robust, reliable communications in the subterranean environment.		
Congressional Adds Subtotals	8.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RG / *Defeat Technologies*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	12.955	11.769	11.304	-	11.304	11.601	11.864	12.103	12.345	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RI / *Nuclear Survivability*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RI: *Nuclear Survivability*	32.580	5.328	6.191	6.561	-	6.561	6.658	6.738	6.863	7.002	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Nuclear Survivability project develops, integrates, demonstrates and transitions 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 Department of Defense (DoD) Instruction 3150.09, Chemical, Biological, Radiological, and Nuclear (CBRN) Survivability Policy. The Defense threat Reduction Agency (DTRA) is the DoD-designated center of excellence for electromagnetic pulse survivability assessments. The System Vulnerability and Assessment effort develops nuclear assessment capabilities to support operational planning, weapon 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. The Radiation hardened nanoelectronics effort develops and integrates radiation-hardened, high-performance prototype nanoelectronics to meet DoD space and strategic system requirements. The Human Survivability supports the Nuclear Test Personnel Review Program (NTPR), confirming the participation of Atomic Veterans in nuclear testing and radiological events and providing radiation dose assessments. The NTPR is administered by the Department of Veterans Affairs and the Department of Justice for radiogenic disease compensation programs.

The increase from FY 2015 to FY 2016 is due to increased investment in Nuclear Surety. The increase from FY 2016 to FY 2017 is due to increased investment in radiation hardened nanoelectronics and nuclear weapons stockpile logistics.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RI: Nuclear Survivability	5.328	6.191	6.561
Description: Project RI develops, integrates and transitions novel technologies that radically enhance the survivability and resilience of DoD nuclear forces and their associated control and support systems in the event of an attack or other hostile action.			
FY 2015 Accomplishments: - Initiated development of Satellite Protection Standard. - Continued research, development, test, and evaluation on physical security technologies designed to enhance protection of the nuclear stockpile as determined by the Services. - Initiated development for the next generation of Defense Integration and Management of Nuclear Data Services (DIAMONDS) network and infrastructure design, leveraging information technology (IT) improvements, to modernize DIAMONDS software code; conducted preliminary design review.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RI / *Nuclear Survivability*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Publish Satellite Protection Standard. - Address 1,000 written atomic veteran claim responses. - Plan and execute Mighty Guardian XVIII force-on-force test to evaluate nuclear security policy at the Navy's Strategic Weapons Facility Pacific, Naval Base Kitsap, WA. - Continue the development of the next generation of DIAMONDS network and infrastructure design. - Leverage IT improvements and recommendations from industry/Agency. - Modernize DIAMONDS software code with design reviews and meetings with users for future needs/requirements. - Field test-bed system at select user sites and continue to evaluate system. ***FY 2017 Plans:*** - Produce technical reports to address DoD concerns for radiogenic disease related to potential ionizing radiation exposure. - Fabricate Pathfinder & Product Demonstration Vehicle to support technology transfer from (6.2) Applied Research to the United States Air Force/Space & Missile Center and National Reconnaissance Office, for maturation in their Productization & Qualification program in 6.4 Advanced Component Development and Prototypes.			
Accomplishments/Planned Programs Subtotals	5.328	6.191	6.561

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	20.671	29.383	34.051	-	34.051	34.553	35.261	35.978	36.698	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	Project (Number/Name) RL / *Nuclear & Radiological Effects*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RL: *Nuclear & Radiological Effects*	-	0.000	0.000	3.528	-	3.528	1.582	1.617	1.658	1.691	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Nuclear and Radiological Effects project develops, integrates and transitions nuclear and radiological assessment modeling tools for use in military planning processes. The assessment modeling tools provide critical analytics for Consequence of Execution (COE) considerations during nuclear targeting and post-detonation nuclear response, supporting interagency strategic and tactical decision making. These COE considerations can include the full range of political, military, economic, social, infrastructure, and information (PMESII) factors and their interaction, extending analytical capabilities beyond common damage assessment practices and into second and third order effects. These activities/efforts support Combatant Commands and other Department of Defense (DoD) organizations by providing accurate and reliable consequence assessment and response information. Note: This is a new funding line established to rapidly transition capabilities to programs of record.

The increase from FY 2016 to FY 2017 is due to the transition of nuclear effects modeling applied research efforts to advanced technology development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RL: Nuclear and Radiological Effects	0.000	0.000	3.528
Description: Project RL develops nuclear and radiological assessment modeling tools to support military operational planning, weapons effects predictions, and strategic system design decisions. ***FY 2015 Accomplishments:*** N/A ***FY 2016 Plans:*** N/A ***FY 2017 Plans:*** - Develop nuclear weapon effects tools specifically designed for transition to military targeting systems. - Develop nuclear weapon effects tools specifically designed to support nuclear survivability and standards formulation.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	3.528

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	31.666	22.698	28.668	-	28.668	31.146	31.829	32.467	33.120	Continuing	Continuing
• *121/0605000BR: *WMD Defeat Technologies*	-	-	-	-	-	-	-	-	-		

Remarks

See prior year funds related to this this project in program element number 0605000BR.

D. Acquisition Strategy

N/A

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RM / *WMD Counterforce Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RM: *WMD Counterforce Technologies*	104.036	27.099	20.717	23.138	-	23.138	26.057	24.939	24.299	24.721	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Weapons of Mass Destruction (WMD) Counterforce Technologies project develops, integrates, demonstrates and transitions emerging technologies enabling efforts to find, characterize, assess, and plan for the defeat of WMD threats. There are two core research efforts in this project. The WMD battlespace awareness effort provides warfighters with capabilities to find, characterize, and assess WMD threats. This effort develops and integrates sensing technologies with multi-mission Unmanned Aerial System payloads. The Countering WMD (CWMD) weapons effects effort develops 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.

The decrease from FY 2015 to FY 2016 is due to the realignment of funding for Technical Reachback from Project RM to Project RA-Information Sciences and Applications. The increase from FY 2016 to FY 2017 is due to increased investment in WMD reconnaissance technology and weapons effects and planning tools.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RM: WMD Counterforce Technologies	27.099	20.717	23.138
Description: Project RM provides: (1) full-scale testing of CWMD weapon effects, weapon effects modeling, and weapon delivery system optimization; and (2) WMD sensor, surveillance, and data processing technologies.			
FY 2015 Accomplishments: - Developed parallel version of transport and dispersion code to allow faster analysis execution on high performance computing resources. Coupled with FY 2014 enhancements, provided upgraded capability to run faster, finer, and larger analyses. - Developed and integrated agent based modeling capabilities. - Conducted a demonstration of scintillating transformational material for CWMD application within an operational architecture. - Supported U.S. Army Program Manager (PM) Unmanned Arial System in completing WMD Aerial Collection System transition activities, fielding, and procurement. - Designed, integrated, and demonstrated Chemical, Biological, Radiological, Nuclear (CBRN) Air-Droppable, Remotely Deployed Sensor (CARDS) payload captive carry system for CARDS packages. - Conducted a CARDS system demonstration of precision emplacement using representative CBRN sensor packages. - Conducted Phase I demonstration of enhanced near-term bio-search/detection sensors for Department of Defense (DoD) and Intelligence Community customers. - Conducted down-select of multi-mode sensor systems for bio-terrorism threat detection. - Initiated Phase II development of select sensor systems for use in detecting small-scale biological labs.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RM / *WMD Counterforce Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Delivered the Vulnerability Assessment and Protection Option (VAPO) planning tool with improved infrastructure modeling capabilities, including secondary effects from improved vehicle borne improvised explosive device models and tertiary effects linked with social behavior resulting from WMD insult. - Delivered capabilities developed in FY 2014 (Integrated Munitions Effectiveness Assessment (IMEA) 11.1). - Developed Enhanced Tunnel/ Hard and Deeply Buried Targets defeat modeling capabilities in the areas of High Strength Concrete weapon penetration and Steep Slope cratering/rubble model. - Initiated development of non-kinetic weapons effects and full-spectrum defeat capability. - Developed improved Agent Defeat modeling capabilities for WMD target attack planning. - Delivered Targeting/Weaponeering academics and targeting recommendation packages supporting Combatant Command requirements.			
FY 2016 Plans: - Transition initial biological search technologies (Bio-ISR Spiral 1) to DoD and Interagency end-users. - Continue technology development for enhanced area search, localization, and point detection/ identification tools for biological threats of interest (Spiral 2). - Initiate planning for Bio-ISR Spiral 2 demonstration of improved biological search technologies. - Demonstrate unmanned platform capable of high-altitude/long-range glide, vertical takeoff and landing transition and egress for covert emplacement of CBRN payloads/sensors. - Design, develop, integrate, and test computer vision, autonomous navigation on unmanned systems to enable precise CBRN payload emplacement. - Complete WMD Aerial Collection System transition activities, fielding, and procurement. - Deliver agent defeat modeling capabilities (Human Injury, Dynamic Pressure, and Structural Response) for DTRA's Reachback mission. - Utilize high performance computing capabilities to enhance scalable model fidelity. - Enhance software development architecture for more efficient integration of modeling and simulation capabilities into planning tools. - Deliver prototype 64-bit version of counter WMD modeling and simulation planning tools for analysis of large data sets. - Continue to develop improved agent defeat modeling capabilities for WMD target attack planning. - Deliver Targeting/Weaponeering academics and targeting recommendation packages for Combatant Commands. - Develop and demonstrate a low-visibility sensor/detection device for chemical search missions. - Demonstrate nano-material based sensor/reporting system for detection of biological/chemical threats. - Conduct prototype demonstration of scintillating transformational material for CWMD application.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RM / *WMD Counterforce Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Demonstrate proof of concept for next-generation chemical warfare agent detector. - Demonstrate enhanced WMD sample collection system for low-visibility search operations. - Demonstrate Biological Intelligence Surveillance and Reconnaissance (Bio-ISR) Spiral 2 enhanced area search sensors/ capabilities for counter-bio search missions. - Integrate, test and demonstrate CBRN defeat technologies in a remotely-operated unmanned payload. - Test and validate the Vertical Take-off and Landing Autonomous Precision Emplacement System delivering chemical, biological, radiological and nuclear defeat payloads. - Transition enhanced structural response and WMD agent dispersion/neutralization models, using new software architecture for improved WMD vulnerability assessment and force protection planning capabilities. - Transition final prototype of advanced area search sensor to counter biological warfare threats. - Complete phase one of three new software architecture developments, allowing WMD defeat modeling and simulation planning tools (i.e., IMEA) to enhance integration with partner agency tools. - Publish targeting/weaponeering academics and targeting recommendation packages for Combatant Commands.			
Accomplishments/Planned Programs Subtotals	27.099	20.717	23.138

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	12.750	13.295	12.097	-	12.097	12.375	12.814	13.060	13.323	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the DoD and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	Project (Number/Name) **RR / *Countering WMD Test and Evaluation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
**RR: *Countering WMD Test and Evaluation*	1.902	12.150	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

**Project RR title changes from Combating WMD Test and Evaluation to Countering WMD Test and Evaluation beginning in FY 2017.

A. Mission Description and Budget Item Justification

Project RR provides a unique national test bed capability for simulated weapons of mass destruction (WMD) facility characterization, weapon-target interaction, and WMD facility defeat testing to respond to operational needs by developing and maintaining test beds used by the Department of Defense (DoD), the Military Services, the Combatant Commanders and other Federal Agencies to evaluate the implications of WMD, conventional, and other special weapon use against U.S. military or civilian systems and targets.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RR: Countering WMD Test and Evaluation	12.150	-	-
Description: Project RR provides a unique national test bed capability for simulated WMD facility characterization, weapon-target interaction, and WMD facility defeat testing. ***FY 2015 Accomplishments:*** - Completed improvements at the Technical Evaluation Assessment and Monitor Site (TEAMS) on Kirtland AFB, NM enhancing the security and protection of Special Nuclear Materials at that location. - Performed architectural and engineering (A&E) study that resulted in a 10 year growth plan for TEAMS that will support mission programs. - Provided government/contractor test team support and test data acquisition systems support to classified program at Nevada National Security Site (NNSS), NV. - Upgraded the electrical system at Drift 06 NNSS, NV. - Initiated test infrastructure development effort at NNSS, NV to support a new DoD high-priority test-bed, to include A&E for studies for Drift 07/08 and test support facilities and completion of upgrade to Drift 06.			
Accomplishments/Planned Programs Subtotals	12.150	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** **RR / *Countering WMD Test and Evaluation*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *Defeat Technologies*	10.277	11.062	13.666	-	13.666	13.978	14.038	14.518	14.864	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RT / *Target Assessment Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RT: *Target Assessment Technologies*	145.588	45.572	56.065	41.794	-	41.794	25.550	26.248	26.779	27.327	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Target Assessment Technologies project develops, integrates, tests, demonstrates and transitions processes and technologies providing advanced capabilities in the areas of Weapons of Mass Destruction (WMD) target assessment and functional defeat. The functional defeat process includes 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. Applying these processes to time-dependent constraints related to WMD target characterization and threat analysis presents a further technical challenge. This project develops analytical tools and processes required to (1) find and characterize WMD targets and associated hard and deeply buried targets and to (2) assess in real time the results of physical and functional defeat operations (such as a direct attack). These novel, dynamic capabilities enable Combatant Commands and the intelligence community (IC) to hold at risk high value targets possessed by adversaries.

The increase from FY 2015 to FY 2016 reflects the continuing investment in the development and integration of high-priority find, characterize and assess sensor technologies and supporting algorithms and software. The decrease from FY 2016 to FY 2017 is due to the projected completion of the development and integration of high-priority find, characterize, and assess sensor technologies and supporting algorithms and software.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RT: Target Assessment Technologies	45.572	56.065	41.794
Description: Project RT provides Combatant Commands and the IC with technologies and processes to find and characterize WMD targets and hard and deeply buried targets and then assess the results of attacks against those targets.			
FY 2015 Accomplishments: - Delivered Find, Characterize, and Assess detection and characterization on-node data fusion algorithm improvements in support of near-real time target update capabilities. - Delivered Find, Characterize, and Assess Underground Targeting and Analysis System (UTAS) tool suite interface improvement for near real time support of IC target characterization and assessment. - Developed Adversarial Route Analysis Tool with Global Expansion for support of Counter-WMD (CWMD) intelligence analysis. - Developed Full Operational Capability (FOC) for UTAS thermal process modeling capability in support of IC target analysis. - Developed Find, Characterize, and Assess detection and characterization hardware and software to support near-real time target update capabilities.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RT / *Target Assessment Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Develop, and demonstrate Nuclear WMD Defeat Model for support of IC CWMD analysis and functional defeat targeting. - Develop and demonstrate Chemical–Biological Weapons Emerging Threats Model capability for support of IC CWMD analysis and course of action selection. - Demonstrate FOC for UTAS thermal process modeling capability for support of IC functional vulnerability analysis of hard or deeply buried WMD related targets. - Demonstrate sensor detection hardware and characterization software integration to support IC near-real time target characterization updates for time critical targeting of WMD related targets. - Conduct developmental demonstration and testing of Spiral 1 prototype sensor nodes in a realistic mission-representative environment. - Conduct Spiral 1 operational assessment of deployable sensor nodes in a realistic mission-representative environment with operational personnel in accordance with the designed concept of operations. - Deliver 24 Spiral 1 prototype deployable sensor units. - Develop new and enhanced (range/sensitivity) detection capabilities and enhanced delivery capabilities as Spiral 2 of the deployable sensor project. - Produce additional prototype sensor units for follow-on (Spiral 2) integration testing and algorithm validation. ***FY 2017 Plans:*** - Demonstrate range and sensitivity detection capabilities and enhanced delivery system for a deployable remote ground sensor. - Conduct integration testing and algorithm validation of a deployable prototype ground sensor. - Integrate deployable ground sensor data outputs into Dynamic Characterization Modeling Tools to support time-dependent target analysis. - Develop processes and approaches for characterization of Underground Facility (UGF) "Pattern of Life" based upon multiple modalities of data input. - Develop analytical processes for planning Functional Defeat of UGFs based on "Pattern of Life" analysis and near-real-time information updates. - Continue to develop WMD complex process models into target facility characterizations. - Continue to develop geo-technical soil and rock models for use in target characterization and sensor deployment planning.			
Accomplishments/Planned Programs Subtotals	45.572	56.065	41.794

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603160BR / *Counterproliferation Initiatives - Proliferation, Prevention, and Defeat*	**Project (Number/Name)** RT / *Target Assessment Technologies*

D. Acquisition Strategy

Assessment and selection of best performer for developmental requirements to meet specific military capability needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry and international partner organizations.

E. Performance Metrics

Percentage of completed demonstration programs transitioning each year. (This is Priority Goal 4.1.2, as cited in US Department of Defense Agency Strategic Plan for Fiscal Years 2015-2018, in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority.")

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	71.066	6.667	7.156	4.568	-	4.568	9.092	8.714	7.782	7.938	Continuing	Continuing
RF: *Forensics Technologies*	6.867	6.667	7.156	4.568	-	4.568	9.092	8.714	7.782	7.938	Continuing	Continuing
RL: *Nuclear & Radiological Effects*	64.199	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	64.199

Note

*Project RF-Detection and Forensics Technologies subdivides into Projects RD-Detection Technologies and RF-Forensics Technologies in FY 2016. This impacts these projects in PE 0602718BR and PE 0603160BR. See C. Other Program Funding Summary below.

A. Mission Description and Budget Item Justification

The WMD Defeat Capabilities program element supports the development and demonstration of verification and monitoring technologies and systems for the Countering Weapons of Mass Destruction (CWMD) mission. This funding specifically supports International Monitoring System technology requirements under the Nuclear Arms Control Technology program. Through FY 2014, funding also supported the development of collaborative CWMD analysis capabilities between the Department of Defense and key interagency and international partners through a globally accessible net-centric framework in the form of the Integrated Weapons of Mass Destruction Toolset.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	6.887	7.156	7.340	-	7.340
Current President's Budget	6.667	7.156	4.568	-	4.568
Total Adjustments	-0.220	0.000	-2.772	-	-2.772
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.220	-			
• Other Reductions	-	-	-2.772	-	-2.772

Change Summary Explanation

The decrease in FY 2017 from the previous President's Budget submission was due to a re-phasing of program activities to FY 2018 and FY 2019. Other reductions were in support of departmental efficiencies.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RF / *Forensics Technologies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RF: *Forensics Technologies*	6.867	6.667	7.156	4.568	-	4.568	9.092	8.714	7.782	7.938	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

*Project RF-Detection and Forensics Technologies subdivides into projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016.

A. Mission Description and Budget Item Justification

This project supports the development of verification and monitoring capabilities for the Defense Threat Reduction Agency (DTRA) to counter proliferation and weapons of mass destruction (WMD). DTRA's Nuclear Arms Control Technologies (NACT) program performs Research, Development, Test, and Evaluation (RDT&E) 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 comprising the U.S. portion of the International Monitoring System (IMS). This delivers data to the U.S. monitoring and verification community and enables U.S. compliance with the Comprehensive Nuclear Test Ban Treaty (CTBT) in support of U.S. and Department of Defense (DoD) nonproliferation objectives.

The project addresses WMD monitoring, implementation of, and compliance with arms control agreement requirements validated by the Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics. This project conforms to the administration's research and development priorities related to WMD arms control and disablement. Technical assessments are made against CTBT implementation requirements and U.S. objectives to provide the basis for sound project development, evaluate existing programs, provide data required to inform compliance assessments, and support U.S. monitoring policy, decision-makers, and negotiation teams.

The primary RDT&E program emphasis is on improvements that enable the installation of treaty-specific stations, which reduce costs and increase the reliability in diverse and often harsh environments; improve efficiency, performance, reliability, and sustainability of existing stations and treaty-specified verification capabilities; and improve capabilities to detect, characterize, and enable discrimination of, nuclear weapons tests. 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 increase from FY 2015 to FY 2016 is due to investment in research on radionuclide sampling and analytical capabilities. The decrease from FY 2016 to FY 2017 is due to re-phasing of program activities to FY 2018 and FY 2019.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RF - Forensics Technologies	6.667	7.156	4.568
Description: Project RF supports the NACT Program, conducting RDT&E to meet IMS technology requirements in support of CTBT implementation, compliance, monitoring, inspection, and other emerging nuclear arms control activities.			
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continued to improve the sustainability, reliability, and effectiveness of the 36 IMS stations. - Completed Provisional Technical Secretariat certification of U.S. IMS Infrasound monitoring station on Wake Island and Auxiliary Seismic monitoring station on Shemya Island, Alaska. - Continued to improve U.S. IMS operations efficiency, capabilities, and quality of monitoring data and decrease false alarms. - Continued support of Office of the Secretary of Defense (OSD) treaty management objectives. - Continued participating in International CTBT Organization Office Provisional Technical Secretariat sponsored technology development exchanges and field exercises. - Continued research and development to inform required design-build-test activities across the monitoring system. - Continued IMS prototype sensor and station calibration capabilities development. - Continued development of monitoring station in-situ calibration and performance monitoring capabilities. - Continued performing experiments or field demonstrations to evaluate monitoring system performance. - Continued to enhance baseline radionuclide particulate and noble gas detection capabilities, efficiency, and reliability. - Continued development and calibration of infrasound and seismic propagation models. - Continued field experiments to collect data required to calibrate and constrain and validate IMS relevant propagation models. - Continued U.S. IMS sensor event signal identification technique research and development of the transportable xenon laboratory.			
FY 2016 Plans: - Continue support of Office of the Secretary of Defense (OSD) Threat Reduction and Arms Control treaty management objectives. - Continue development and implementation of IMS sensor and station calibration capabilities. - Continue development and implementation of in-situ calibration concepts. - Participate in CTBT Organization Provisional Technical Secretariat sponsored technology development exchanges. - Sponsor U.S. specific technology development exchanges. - Develop and implement U.S. IMS specific life-cycle management software to enable cost effective and efficient spare part replacement and long-range recapitalization. - Develop and implement concepts to improve the reliability of the radionuclide stations. - Develop and implement concepts to improve radionuclide and infrasound signal to noise. - Improve and develop system of health monitoring software.			
FY 2017 Plans: - Optimize IMS technology and operations to comply with CTBT language and evolving operational manual requirements and to increase cost efficiency. - Validate alternative filter media against Provisional Technical Secretariat certification standards for U.S. IMS particulate radionuclide sensor to enhance aerosol collection efficiency for the Radionuclide Aerosol Sampler/Analyzer system. - Conduct Analysis of Alternatives for Hydroacoustic monitoring.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RF / *Forensics Technologies*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Annually, provide analysis of up to 800 additional International Atomic Energy Agency verification samples in support of the OSD, Nuclear, Chemical and Biological Threat Reduction Advisory Committee. - Complete evaluation of U.S. IMS operational options determined from life-cycle modeling and simulation to determine most cost-effective operational models. - Evaluate alternative backup power options for arctic to improve reliability and performance in remote locations as defined by CTBT Operations Manuals. - Participate in CTBT Organization Provisional Technical Secretariat sponsored technology development exchanges. - Finalize testing for Provisional Technical Secretariat qualification of alternative infrasound waveform sensor that improves efficiency, reliability, or cost effectiveness at equal or greater data quality objectives. - Run models and simulations to improve understanding of CTBT IMS network viability/limitations.			
Accomplishments/Planned Programs Subtotals	6.667	7.156	4.568

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	31.403	9.356	10.008	-	10.008	10.274	10.505	10.717	10.933	Continuing	Continuing
• 27/0603160BR: *Proliferation Prevention and Defeat*	63.115	38.427	38.540	-	38.540	42.454	43.727	42.518	43.367	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.

E. Performance Metrics

The goal of the NACT RDT&E program is to enable full compliance of all emerging data quality requirements and other requirements as documented in CTBT treaty language, CTBT-issued Radionuclide and Waveform Operations Manuals, other CTBT Organization communications, and DOD Treaty Implementation Manager directives. RDT&E is conducted in support of NACT's operational mission to operate, maintain, and sustain the Provisional Technical Secretariat certified waveform and radionuclide CTBT monitoring stations and radionuclide laboratory in accordance with CTBT requirements. CTBT IMS data availability/timeliness performance specifications are currently 98% data availability for IMS waveform and 95% for IMS radionuclide systems. Data quality metrics continue to evolve as the entire CTBT IMS capability is exercised and tested.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RF / *Forensics Technologies*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Radionuclide Sensor, Station, Laboratory and Network improvements	FFRDC	Pacific Northwest National Laboratory : Richland, WA	2.317	1.265	Apr 2015	1.478	Jun 2016	1.000	Jun 2017	-		1.000	Continuing	Continuing	Continuing
Waveform Analysis Technology	C/Various	Space and Missile Defense Labs : Huntsville, AL	1.669	0.086	Mar 2015	0.045		0.000		-		0.000	0.000	1.800	1.800
Radionuclide Sensor, Station, and Network Improvements	C/CPFF	General Dynamics : Fairfax, VA	0.500	0.494	Jul 2015	0.494	Mar 2016	0.229	Jun 2017	-		0.229	Continuing	Continuing	Continuing
Seismic and Infrasound Sensor, Station, and Network Improvements	C/CPFF	University of Alaska : Fairbanks, AK	-	0.093	Jul 2015	0.093	Apr 2016	0.100	Apr 2017	-		0.100	Continuing	Continuing	Continuing
Seismic and Infrasound Sensor, Station, and Network Improvements, Validation, and Verification Testing	FFRDC	Sandia National Laboratory : Albuquerque, NM	0.506	2.259	Apr 2015	1.600	Mar 2016	1.304	Apr 2017	-		1.304	Continuing	Continuing	Continuing
Sample Analysis	MIPR	Air Force Technical Application Center : Patrick AFB, FL	0.800	0.800	Mar 2015	0.800	Aug 2016	0.800	Jun 2017	-		0.800	Continuing	Continuing	Continuing
Station failure and logistics modeling and simulation	C/CPFF	Systems Exchange, Inc. : Carmel, CA	-	0.196	Mar 2015	0.035	Mar 2016	0.035	Mar 2017	-		0.035	Continuing	Continuing	Continuing
Station and network improvements	C/Various	Lockheed Martin : Bethesda, MD	-	0.165	Jan 2016	1.511	Mar 2015	0.000		-		0.000	Continuing	Continuing	Continuing
Seismic and Infrasound Sensor, Station, and Network Improvements	MIPR	Naval Research Laboratory : Washington, DC	-	0.204	Oct 2015	0.000		0.000		-		0.000	0.000	0.204	0.204
Engineering & Technical Services	C/CPFF	TASC, Inc. : Chantilly, VA	0.800	0.800	Dec 2014	0.800	Dec 2015	0.760	Dec 2016	-		0.760	Continuing	Continuing	Continuing
		Subtotal	6.592	6.362		6.856		4.228		-		4.228	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RF / *Forensics Technologies*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advisory & Assistance Services Support to Program Office	C/CPFF	TASC, Inc. : Chantilly, VA	0.200	0.200	Apr 2015	0.200		0.200		-		0.200	Continuing	Continuing	Continuing
Travel	C/Various	Various : Various	0.075	0.105		0.100		0.140		-		0.140	Continuing	Continuing	Continuing
		Subtotal	0.275	0.305		0.300		0.340		-		0.340	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.867	6.667		7.156		4.568		-		4.568	-	-	-

Remarks

The Defense Threat Reduction Agency (DTRA) Nuclear Arms Control program installs, operates, maintains, and sustains the waveform and radionuclide nuclear detonation detection stations comprising the U.S. portion of the International Monitoring Systems (IMS) in order to deliver data to the U.S. monitoring and verification community and to enable U.S. compliance to the terms of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) in support of U.S. and Department of Defense (DOD) nonproliferation objectives. The project addresses weapons of mass destruction (WMD) monitoring requirements validated by the Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics. This project conforms to the administration's research and development priorities as related to WMD arms control and disablement. Technical assessments are made against CTBT implementation requirements and U.S. objectives to provide the basis for sound project development, evaluate existing programs, and provide the data required to inform compliance assessments, and support U.S. monitoring policy and decision-makers, and negotiation teams. NOTE: As this program and its requirements mature and legacy contract vehicles expire, the composition of the performer base under DTRA program management will be dynamic.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RF / *Forensics Technologies*

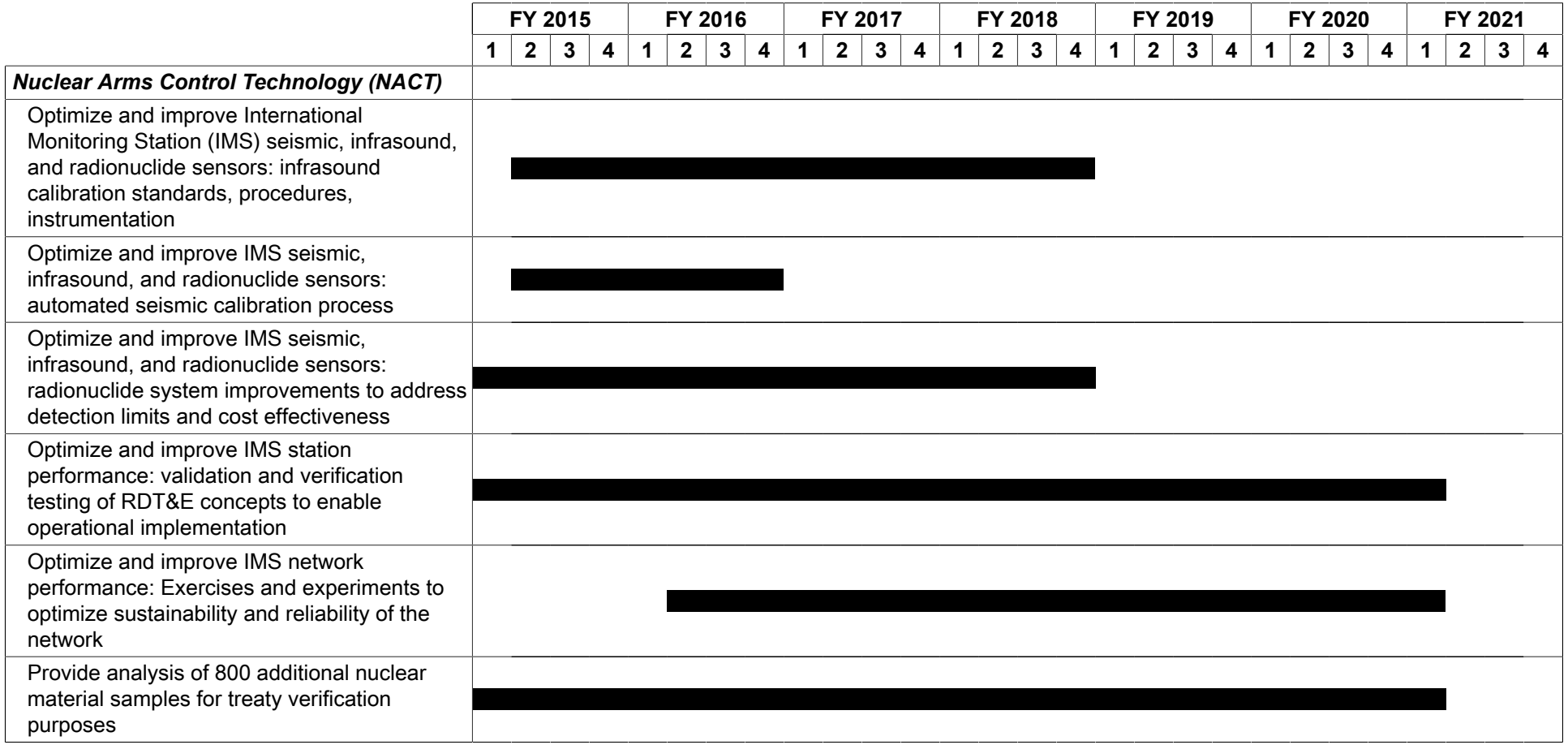

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RF / *Forensics Technologies*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Nuclear Arms Control Technology (NACT)				
Optimize and improve International Monitoring Station (IMS) seismic, infrasound, and radionuclide sensors: infrasound calibration standards, procedures, instrumentation	2	2015	4	2018
Optimize and improve IMS seismic, infrasound, and radionuclide sensors: automated seismic calibration process	2	2015	4	2016
Optimize and improve IMS seismic, infrasound, and radionuclide sensors: radionuclide system improvements to address detection limits and cost effectiveness	1	2015	4	2018
Optimize and improve IMS station performance: validation and verification testing of RDT&E concepts to enable operational implementation	1	2015	1	2021
Optimize and improve IMS network performance: Exercises and experiments to optimize sustainability and reliability of the network	2	2016	1	2021
Provide analysis of 800 additional nuclear material samples for treaty verification purposes	1	2015	1	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RL / *Nuclear & Radiological Effects*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RL: *Nuclear & Radiological Effects*	64.199	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	64.199
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Efforts in this project were completed in FY 2014. Under Project RL, the Net-Centric Architecture program integrated legacy capabilities and facilitated data sharing through a net-centric framework. It provided near-real time collaborative analysis capabilities between the Department of Defense (DoD) and key interagency and international partners through a globally accessible net-centric framework known as the Integrated Weapons of Mass Destruction Toolset. This toolset migrated the Defense Threat Reduction Agency's (DTRA's) chemical, biological, radiological, and nuclear (CBRN) modeling and simulation codes to provide an integrated suite of Countering Weapons of Mass Destruction (CWMD) decision support capabilities. The framework was the only operational chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) framework in the world that provided capabilities through web applications, net-centric web services, and stand-alone mobile deployments which are validated and accredited for operational use by international, national, state, and local authorities.

The decrease in FY 2015 is due to the completion of Integrated Weapons of Mass Destruction Toolset investments.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RL: Nuclear & Radiological Effects	0.000	-	-
Description: Project RL develops and provides a real-time globally accessible net-centric framework which migrates the DTRA CBRNE modeling and simulation codes to provide an integrated suite of CWMD decision support capabilities.			
FY 2015 Accomplishments: N/A			
Accomplishments/Planned Programs Subtotals	0.000	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	31.666	22.698	28.668	-	28.668	31.146	31.829	32.467	33.120	Continuing	Continuing
• 27/0603160BR: *Proliferation, Prevention, and Defeat*	0.000	0.000	3.528	-	3.528	1.582	1.617	1.658	1.691	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

D. Acquisition Strategy

The program for Integrated Weapons of Mass Destruction Toolset was executed through a competed cost plus fixed-fee contract. This contract was a 3-year effort for software development, test, and integration.

E. Performance Metrics

Demonstrate and provide over 80% of the customer-required CBRN modeling and simulation capabilities over networks, e.g., DoD Global Information Grid. Integrate mission-required legacy DTRA CBRNE codes into a net-centric architecture through a process-controlled verification, validation, and accreditation standards-based method necessary to promote the National Strategy for Countering Biological Threats.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RL / *Nuclear & Radiological Effects*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development - IWMDT	C/CPAF	Leidos : San Diego, CA	21.280	-		-		-		-		-	0	21.280	21.280
System Development - NuCS	C/CPFF	Applied Research Associates : Raleigh, NC	5.880	-		-		-		-		-	0	5.880	5.880
System Development - COE	C/CPFF	Titan : Kingstowne, VA	5.533	-		-		-		-		-	0.000	5.533	5.533
System Development - Component Contracts	C/Various	Various : Various	5.073	-		-		-		-		-	0	5.073	5.073
		Subtotal	37.766	-		-		-		-		-	0.000	37.766	37.766

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Configuration Management	C/CPAF	Leidos : San Diego, CA	0.941	-		-		-		-		-	0	0.941	0.941
Software Integration	C/CPAF	Leidos : San Diego, CA	7.550	-		-		-		-		-	0	7.550	7.550
Technical Data	C/CPAF	Leidos : San Diego, CA	0.739	-		-		-		-		-	0	0.739	0.739
Engineering Services	C/CPAF	Leidos : San Diego, CA	2.601	-		-		-		-		-	0	2.601	2.601
Accreditation & Certification	C/CPAF	Leidos : San Diego, CA	1.387	-		-		-		-		-	0	1.387	1.387
		Subtotal	13.218	-		-		-		-		-	0.000	13.218	13.218

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605000BR / *WMD Defeat Capabilities*	Project (Number/Name) RL / *Nuclear & Radiological Effects*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPAF	Leidos : San Diego, CA	2.984	-		-		-		-		-	0	2.984	2.984
Operational Test & Evaluation	C/ FFPLOE	Leidos : San Diego, CA	2.421	-		-		-		-		-	0	2.421	2.421
		Subtotal	5.405	-		-		-		-		-	0.000	5.405	5.405

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/Various	TASC, Inc. : Lorton, VA	3.389	-		-		-		-		-	0	3.389	3.389
Travel	C/Various	Various : Various	1.618	-		-		-		-		-	0	1.618	1.618
Overhead	C/Various	Various : Various	2.803	-		-		-		-		-	0	2.803	2.803
		Subtotal	7.810	-		-		-		-		-	0.000	7.810	7.810

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	64.199	-		0.000		-		-		-	0.000	64.199	64.199

Remarks

IWMDT was funded in 2004 by a competitive Cost Plus Award Fee (CPAF) contract for $12.425M over a 3-year period. At end of FY 2006, its follow-on contract was awarded with an initial $0.300M increment. IWMDT efforts continued into FY 2013 with $58.555M applied. The Joint Collaborative Analysis Model, a subcomponent within IWMDT was openly competed under one of the new DTRA Indefinite Delivery/Indefinite Quantity contracts for approximately $2.500M for FY 2014.

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014			
	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
Integrated Weapons of Mass Destruction (IWMDT)																												
IWMDT-System Development, Test, and Integration-Phase III																									[redacted]			

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Integrated Weapons of Mass Destruction (IWMDT)																												
IWMDT-System Development, Test, and Integration-Phase III																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Threat Reduction Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605000BR / *WMD Defeat Capabilities*	**Project (Number/Name)** RL / *Nuclear & Radiological Effects*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Integrated Weapons of Mass Destruction (IWMDT)				
IWMDT-System Development, Test, and Integration-Phase III	1	2014	3	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Threat Reduction Agency	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502BR / *Small Business Innovation Research*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	29.006	9.606	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
RA: *Information Sciences and Applications*	29.006	9.606	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

Funding for this program element is not allocated until the year of execution. Program Element 0605502BR "Small Business Innovative Research" is used in reporting year-end actual expenses only.

A. Mission Description and Budget Item Justification

The Small Business Innovative 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)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	9.606	0.000	0.000	-	0.000
Total Adjustments	9.606	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	9.606	-			

Change Summary Explanation

Funding for the SBIR Program is consolidated in this program element during the year of execution.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502BR / *Small Business Innovation Research*	Project (Number/Name) RA / *Information Sciences and Applications*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
RA: *Information Sciences and Applications*	29.006	9.606	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 Innovative Research (SBIR)” is used in reporting year-end actual expenses only.

A. Mission Description and Budget Item Justification

This project provides 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. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: RA: Information Sciences and Applications	9.606	-	-
Description: 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. ***FY 2015 Accomplishments:*** - Improved microchip production methods applicable to radiation hardened components. - Developed non-Helium-3 neutron/gamma detectors (PM nominated for R&D 100 award, received Value Engineering Award) Phase I contract awards from qualified proposals - SBIR 14.3 solicitation: 8 awards - STTR solicitation: 10 awards Phase II contract awards from qualified proposals - SBIR 12.2 solicitation: 7 awards - SBIR 10.2 solicitation: 2 awards			
Accomplishments/Planned Programs Subtotals	9.606	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Defense Threat Reduction Agency			Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502BR / *Small Business Innovation Research*	**Project (Number/Name)** RA / *Information Sciences and Applications*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 20/0602718BR: *WMD Defeat Technologies*	26.334	29.432	29.127	-	29.127	33.255	33.513	30.990	31.405	Continuing	Continuing
• 27/0603160BR: *Counterproliferation Initiatives - Proliferation, Prevention and Defeat*	0.250	12.244	11.422	-	11.422	11.323	12.761	13.004	13.266	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016



The Joint Staff

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	150,372	76,865		76,865	68,586		68,586
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 28, 2016 at 12:49:53

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Advanced Component Development And Prototypes	65,420	21,700		21,700	23,642		23,642
Management Support	68,378	50,370		50,370	41,080		41,080
Operational System Development	16,574	4,795		4,795	3,864		3,864
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586
Summary Recap of FYDP Programs							
General Purpose Forces	19,700	7,825		7,825	10,502		10,502
Intelligence and Communications	12,179	10,404		10,404	857		857
Research and Development	115,382	55,683		55,683	56,401		56,401
Administration and Associated Activities	3,111	2,953		2,953	826		826
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Advanced Component Development And Prototypes	65,420	21,700		21,700	23,642		23,642
Management Support	68,378	50,370		50,370	41,080		41,080
Operational System Development	16,574	4,795		4,795	3,864		3,864
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586
Summary Recap of FYDP Programs							
General Purpose Forces	19,700	7,825		7,825	10,502		10,502
Intelligence and Communications	12,179	10,404		10,404	857		857
Research and Development	115,382	55,683		55,683	56,401		56,401
Administration and Associated Activities	3,111	2,953		2,953	826		826
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
The Joint Staff	150,372	76,865		76,865	68,586		68,586
Total Research, Development, Test & Evaluation	150,372	76,865		76,865	68,586		68,586

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 28, 2016 at 12:49:53

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
98	0604445J	Wide Area Surveillance	04	59,823							U
101	0604787J	Joint Systems Integration	04	3,150							U
102	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		21,700		21,700	23,642		23,642	U
103	0604828J	Joint FIRES Integration and Interoperability Team	04	2,447							U
		Advanced Component Development And Prototypes		65,420	21,700		21,700	23,642		23,642	
142	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	39,795	33,983		33,983	32,759		32,759	U
167	0204571J	Joint Staff Analytical Support	06	16,404	5,983		5,983	7,464		7,464	U
170	0303166J	Support to Information Operations (IO) Capabilities	06	12,179	10,404		10,404	857		857	U
		Management Support		68,378	50,370		50,370	41,080		41,080	
188	0607828J	Joint Integration and Interoperability	07	10,167							U
189	0208043J	Planning and Decision Aid System (PDAS)	07	3,296	1,842		1,842	3,038		3,038	U
240	0902298J	Management HQ - OJCS	07	3,111	2,953		2,953	826		826	U
		Operational System Development		16,574	4,795		4,795	3,864		3,864	
Total Research, Development, Test & Eval, DW				150,372	76,865		76,865	68,586		68,586	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 28, 2016 at 12:49:53

The Joint Staff
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
98	0604445J	Wide Area Surveillance	04	59,823							U
101	0604787J	Joint Systems Integration	04	3,150							U
102	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04		21,700		21,700	23,642		23,642	U
103	0604828J	Joint FIRES Integration and Interoperability Team	04	2,447							U
Advanced Component Development And Prototypes				65,420	21,700		21,700	23,642		23,642	
142	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	39,795	33,983		33,983	32,759		32,759	U
167	0204571J	Joint Staff Analytical Support	06	16,404	5,983		5,983	7,464		7,464	U
170	0303166J	Support to Information Operations (IO) Capabilities	06	12,179	10,404		10,404	857		857	U
Management Support				68,378	50,370		50,370	41,080		41,080	
188	0607828J	Joint Integration and Interoperability	07	10,167							U
189	0208043J	Planning and Decision Aid System (PDAS)	07	3,296	1,842		1,842	3,038		3,038	U
240	0902298J	Management HQ - OJCS	07	3,111	2,953		2,953	826		826	U
Operational System Development				16,574	4,795		4,795	3,864		3,864	
Total The Joint Staff				150,372	76,865		76,865	68,586		68,586	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 28, 2016 at 12:49:53

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98	04	0604445J	Wide Area Surveillance	Volume 5 - 743
101	04	0604787J	Joint Systems Integration	Volume 5 - 745
102	04	0604826J	Joint C5 Capability Development, Integration, and Interoperability Assessments	Volume 5 - 755
103	04	0604828J	Joint FIRES Integration and Interoperability Team	Volume 5 - 775

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
142	06	0605126J	Joint Integrated Air & Missile Defense Organization (JIAMDO)	Volume 5 - 781
167	06	0204571J	Joint Staff Analytical Support (JSAS)	Volume 5 - 799
170	06	0303166J	Support to Information Operations Capability	Volume 5 - 809

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
188	07	0607828J	Joint Integration & Interoperability	Volume 5 - 813
189	07	0208043J	Planning and Decision Aid System (PDAS)	Volume 5 - 819
240	07	0902298J	Management Headquarters	Volume 5 - 821

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Joint C5 Capability Development, Integration, and Interoperability Assessments	0604826J	102	04	Volume 5 - 755
Joint FIRES Integration and Interoperability Team	0604828J	103	04	Volume 5 - 775
Joint Integrated Air & Missile Defense Organization (JIAMDO)	0605126J	142	06	Volume 5 - 781
Joint Integration & Interoperability	0607828J	188	07	Volume 5 - 813
Joint Staff Analytical Support (JSAS)	0204571J	167	06	Volume 5 - 799
Joint Systems Integration	0604787J	101	04	Volume 5 - 745
Management Headquarters	0902298J	240	07	Volume 5 - 821
Planning and Decision Aid System (PDAS)	0208043J	189	07	Volume 5 - 819
Support to Information Operations Capability	0303166J	170	06	Volume 5 - 809
Wide Area Surveillance	0604445J	98	04	Volume 5 - 743

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0604445J *I Wide Area Surveillance*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	25.955	59.823	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	85.778
P001: *Wide Area Surveillance*	25.955	59.823	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	85.778
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Wide Area Surveillance (WAS) program transfers to the U.S. Air Force in FY 2016.

Details of this project are classified.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	53.000	0.000	0.000	-	0.000
Current President's Budget	59.823	0.000	0.000	-	0.000
Total Adjustments	6.823	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Execution of prior year funds	6.823	-	-	-	-

Change Summary Explanation

The Wide Area Surveillance (WAS) program transfers to the U.S. Air Force in FY 2016.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0604787J / *Joint Systems Integration*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	7.064	3.150	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.214
P787: *Joint Systems Integration*	7.064	3.150	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.214
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In support of the Chairman's responsibility for the assessment of the capability and adequacy of United States forces to successfully execute the national military strategy the Joint Systems Integration (JSI) Program Element provides mission funding for the Joint Staff J6 C4 Assessments Division (C4AD). C4AD conducts interoperability assessments and develops solutions/recommendations to improve integration of Service, Defense Agency, and coalition systems.

C4AD's Persistent Command and Control Environment replicates an operational environment and provides Combatant Commands, Services, Agencies and Coalition partners at the joint force headquarters level, a laboratory and assessment venue for the warfighter and capability developer to identify and solve interoperability and integration issues with current and near-term joint and coalition capabilities. With this capability, C4AD assesses system of systems interoperability, operational capability, procedural compliance and technical suitability of emerging and existing systems and programs to confirm readiness for deployment.

By establishing ground truth for interoperability and suggesting remedies for demonstrated shortfalls, C4AD is an enabler for the Chairman's priorities to: pioneer new ways to combine and employ emergent capabilities, drive Jointness deeper, sooner in capability development, move quickly toward Joint information and simulation networks that support secure and agile command and control, expand the envelope of interagency and international cooperation, and promote multilateral security approaches and architectures.

In FY2016 this program element will be consolidated with PE 0604826J - Joint C5 (Joint Command, Control, Communications, Computers and Cyber) Capability Development, Integration, and Interoperability Assessments.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604787J *I Joint Systems Integration*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	7.002	0.000	0.000	-	0.000
Current President's Budget	3.150	0.000	0.000	-	0.000
Total Adjustments	-3.852	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY2015 Carryover	-3.852	-	-	-	-

Change Summary Explanation

In FY2016 this program element will be consolidated with PE 0604826J - Joint C5 (Command, Control, Communications, Computers, and Cyber) Capability Development, Integration, and Interoperability Assessments.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Systems Integration	3.150	-	-
FY 2015 Accomplishments: (1) Conducted 16 interoperability assessments of fielded and emerging command, control, communications, computers, and cyber (C5) systems that resulted in over 200 recommendations and/or solutions in support of the National Military Strategy, Chairman's guidance, and operational needs statements from operational commanders. Integrated advanced technologies to demonstrate new capabilities in wireless devices (5), wireless security. (2) Meshed and ad-hoc networking (2), satellite modem technology (1), and small lightweight secure digital datalink capabilities (2) on warfighter command and control nets. Automated NATO Database Interface (ANDI) Interoperability Assessment – Assessed the automated exchange of targeting data between the U.S. Joint Targeting Toolbox (JTT) and the NATO Joint Targeting System (JTS) which reduces manpower requirements and data entry errors by automating the transfer of targeting data. This makes targeting data available in real time and reduces targeting errors/fratricide resulting from bad data. (3) Tactical Infrastructure Enterprise Services (TIES) Coalition Warfare Program (CWP) Interoperability Assessment – Executed a successful OCONUS technical demonstration and operational utility assessment of the Tactical Infrastructure Enterprise Services (TIES) Coalition Warfare Program (CWP) that established a two-way identity access management, data security labeling and information exchange capability among multiple allied partner nations.			

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604787J / *Joint Systems Integration*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(4) Joint Fire Support (JFS) Joint Mission Thread (JMT) Interoperability Assessment – Assessed JFS system of systems interoperability across user, decision maker, and Service boundaries to evaluate the capability to support immediate close air support in a joint/multinational operational environment to improve time between and accuracy of JCAS capability.			
(5) Bold Quest 15 Mission Partner Environment (MPE) Federated Mission Networking (FMN) Joining, Membership and Exit Instructions (JMEI) Assessments – Assessed developing JMEIs to implement MPE in the Bold Quest operational venue. Provides risk mitigation for global implementation of MPE partner information sharing as a key enabler of Joint Force 2020.			
(6) Coalition Warrior Interoperability Exploration, Experimentation, Examination Exercise (CWIX) Interoperability Assessments – Conducted interoperability assessments between selected systems during the CWIX 2015 event. CWIX provides the venue for NATO and coalition partners to pool and share resources to achieve C2 systems interoperability prior to deployment.			
(7) Federated Mission Networking (FMN)/Mission Partner Environment (MPE) Assessment and Enhancement of Civilian-Military Interoperability – Assessed the tactics, techniques, procedures, and methodologies to overcome the challenges of incompatible/ non-interoperable services and systems required for the timely establishment of effective information sharing with non-military mission partners supporting humanitarian disaster relief operations.			
(8) Austere Challenge 2015; Radiant Mercury Operational Demonstration Capability Assessment – Validated the correction of previously discovered discrepancies in the prescribed Radiant Mercury Rule-Set that allows compliant data flow between USEUCOM headquarters and UK headquarters.			
(9) Coalition Validation and Verification Environment (C2VE) – Developed a persistent assessment environment that enables Coalition partners to validate the capability to share critical information quickly and accurately to support information exchange requirements of multi-national operations.			
(10) Bold Quest (BQ) 2015 Engineering Support – Designed, accredited, installed, operated and maintained the BQ15 exercise tailored network in support of the BQ operational demonstration.			
(11) Friendly Force Tracking (FFT) Assessment Support – Assessed US and Allied ground to air situational awareness systems and capabilities to ensure shared situational awareness and reduce the risk of fratricide incidents in coalition air-to-ground situations.			

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604787J / *Joint Systems Integration*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(12) Targeting and Intelligence, Surveillance and Reconnaissance Systems Interoperability Assessment – Conducted an interoperability assessment between US Pacific Command and Theater Service Components joint targeting and command/ decision systems that identified interoperability gaps and recommended potential solutions. (13) Distributed Common Ground System-Army Interoperability Assessment – Conducted an interoperability assessment in support of the Joint Interoperability Test Command's interoperability certification of the DCGS-A version 3.2 interface to the Modernized Integrated Database (MIDB). This interface is used daily in USEUCOM and Korea to maintain currency and validity of intelligence databases. (14) Joint Operational Long Term Evolution Deployable (JOLTED) Tactical Cellular System (TACTICS) Joint Capability Technical Demonstration (JCTD) - Technical Manager – JOLTED TACTICS is an ongoing project that is an Internet Protocol (IP) based system designed to provide secure cellular communications to tactical users. This system leverages innovations in Fourth Generation (4G) LTE Cellular technologies and mobile Ka band spread spectrum satellite communications to deliver megabits of data to mobile and dismounted teams armed with mobile devices such as smartphones or netbooks. (15) C2 Applications over Broadband Cellular (C2 ABC) Integration and Assessment – Ongoing project that is integrating and assessing legacy C2 and emerging tailored applications using broadband cellular technologies to provide the warfighter at the tactical edge with expanded situational awareness. (16) National Security Agency (NSA) Commercial Solutions for Classified (CSfC) Secure Wireless Local Area Network (SWLAN) Integration Assessment – Assisted NSA in the development and assessment of a Suite B software encryption solution. This capability supports communicating over classified wireless networks without using Type-1 hardware. (17) Classified Reconfigurable Operational Wireless Network Integration (CROWN) – Developing a multi-classification secure wireless capability that is fully compliant and supports integration of commercial smartphones, tablets, and laptops for access to enterprise services for deployed users. Its development will enable rapid deployment of communications capability to a tactical environment with a reduced physical footprint, increased logistical flexibility, and reduced cost. (18) Tactical Infrastructure Enterprise Services (TIES) Joint Capability Technical Demonstration (JCTD) Interoperability Assessment - Assessed the capability of sharing data from authoritative data sources using web services in a National Information Exchange Model (NIEM) conformant standardized data format.			

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604787J *I Joint Systems Integration*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(19) C2 Common Operating Picture (COP) Support and Assessment to Cyber Flag (CF) 2015-1 – Provided C2 systems, a common operational picture, and assessment of cyber effects on these systems integrated into the Navy Defensive Cyber Operation DoD Information Network (DoDIN) Simulation, Training, and Exercise Platform (STEP) environment. (20) Cyberspace Situational Awareness Display, Symbology Set Assessment – Assessed the usability, usefulness, and scope of newly published MIL-STD-2525D, standardized graphical symbols for use in Cyberspace operations information displays. (21) DoD Enterprise Cyber Range Environment (DECRE) Event 3 – Developed the distributed DECRE by integrating additional organizations and capabilities and leveraging the best practices, tools, and procedures required to provide an environment for training cyber warriors, assessing cyber techniques, and assessing networks and systems vulnerabilities. DoD lacks an enterprise training and development environment to further understand computer network defense activities, operations, and impacts. (22) Navy Cyber Defense Operations Command Facility Support – Provided selected systems to assess system vulnerabilities to red team exploitation. (23) Cyber Assessment Event Number 4 Phases 1, 2, 3 - Provided a representative Joint Task Force (JTF) Headquarters node to assess C2 system vulnerabilities to red team exploitation and improve blue team responses. (24) Office of Cost Assessment and Program Evaluation (CAPE) Cyber Defense C2 Systems Support – Provided required systems, system administration support and connectivity for three events to evaluate cyberspace defensive strategies and allow for the exploration of the impact of alternate defensive strategies. (25) Cyber Guard 15 Assessment and Support – Provided assessment and all infrastructure support to sustain services to 180 workstations for 540 participants for three events which assessed Cyber Mission Force command and control operations.			
Accomplishments/Planned Programs Subtotals	3.150	-	-

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

N/A

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604787J *I Joint Systems Integration*

F. Performance Metrics

N/A: Consolidating to new PE in FY2016 - reference PE0604826J

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604787J / *Joint Systems Integration*	**Project (Number/Name)** P787 / *Joint Systems Integration*

Remarks

N/A: Consolidating to new PE in FY2016 - reference PE0604826J

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604787J / *Joint Systems Integration*	**Project (Number/Name)** P787 / *Joint Systems Integration*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Consolidation																												
Consolidating to new PE in FY2016 - reference PE0604826J					[redacted]																							

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604787J / *Joint Systems Integration*	**Project (Number/Name)** P787 / *Joint Systems Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Consolidation				
Consolidating to new PE in FY2016 - reference PE0604826J	1	2016	1	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0604826J *I Joint C5 Capability Development, Integration, and Interoperability Assessments*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	0.000	0.000	21.700	23.642	-	23.642	23.638	23.629	23.630	23.630	Continuing	Continuing
001: *C5 Assessments and Analyses*	0.000	0.000	10.196	12.898	-	12.898	12.898	12.842	12.843	12.843	Continuing	Continuing
002: *C5 Capability Development*	0.000	0.000	7.079	6.594	-	6.594	6.590	6.637	6.637	6.637	Continuing	Continuing
003: *Joint Fires C2 Interoperability*	0.000	0.000	4.425	4.150	-	4.150	4.150	4.150	4.150	4.150	Continuing	Continuing

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. This was a new PE for FY 2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY 2013 after JFCOM disestablishment. The following PEs are no longer used: 0604828J - Joint Fires Integration and Interoperability Team (JFI), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	25.200	23.483	-	23.483
Current President's Budget	0.000	21.700	23.642	-	23.642
Total Adjustments	0.000	-3.500	0.159	-	0.159
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Economic Adjustment	-	-	0.159	-	0.159

Change Summary Explanation

Inflation.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
001: *C5 Assessments and Analyses*	0.000	0.000	10.196	12.898	-	12.898	12.898	12.842	12.843	12.843	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Conduct analysis and assessment activities to inform and enhance Joint warfighter capabilities in support of U.S. National security requirements. Provide timely, facts-based findings and recommendations for action through the formal DoD decision-making processes used to validate operational requirements and apply funding to field effective, 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/integration assessment efforts focused on emerging capabilities in wireless devices and security, tactical command and control and networking, satellite communications, advanced secure digital datalinks, and coalition data exchanges.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: C5 Assessments and Analyses	-	10.196	12.898
Description: Conduct analysis and assessment activities to inform and enhance Joint warfighter capabilities in support of U.S. National security requirements. Provide timely, facts-based findings and recommendations for action through the formal DoD decision-making processes used to validate operational requirements and apply funding to field effective, 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/integration assessment efforts focused on emerging capabilities in wireless devices and security, tactical command and control and networking, satellite communications, advanced secure digital datalinks, and coalition data exchanges.			
FY 2016 Plans: Conduct interoperability assessments and analysis 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. FY 2016 focus areas include: Command and Control, Mission Partner Environment, and operations in Cyberspace Capability Development. This includes the impact of technology advances in wireless devices, modem technology, and small secure digital capabilities on warfighter command and control capabilities to match emerging requirements with near-term technology solutions. A comprehensive Joint Task Force (JTF) environment will support the integration and operational assessment process and support cyber training, capability development and assessments, separately and in coordination with the Department of Defense Cyber			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Range Environment (DECRE). This is achieved by maintaining a persistent C5 laboratory environment that allows for a rapidly reconfigurable joint, coalition, and inter-agency interoperability assessments, including participation in the Coalition Interoperability and Assurance Validation (CIAV) which supports on-going war efforts. In a live setting, a deployable capability allows for range instrumentation and both the collection and analysis of decision quality data for cyber and command and control operations. This objective, joint analysis provides the data and analysis from which Director, Operational Testing and Evaluation decisions are made. ***FY 2017 Plans:*** FY 2017 focus areas include: Command and Control, Mission Partner Environment, Integrated Air and Missile Defense (IAMD), Joint Fires Support, operations in Cyberspace Capability Development, and Joint Test and Evaluation Digitally Aided Close Air Support (DACAS). Ensure C5 Assessments and Analyses activities are conducted through persistent, reconfigurable C5 laboratories replicating joint and coalition system of systems operational environments that connect to other virtual, constructive, and live environments across national and multi-national operational, research, and test networks leveraging operational venues/exercises. Provide a deployable assessment capability (including contested joint environments) allowing for range instrumentation and both the collection and analysis of decision quality data for command and control operations.			
Accomplishments/Planned Programs Subtotals	-	10.196	12.898

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

(1) Conduct at least fifteen (15) interoperability assessments designed to identify Joint and Coalition interoperability issues and recommend fixes/solutions to Program Managers, Combatant Commands, Services, and Agencies.

(2) Support a minimum of six (6) exercises and events in the field (deployed), providing data collection, analysis, and recommendations based on decision quality data, in order to improve and increase Joint C2 and Joint Fires C2 interoperability.

(3) Provide C2 Systems and Persistent command, control, communications, and computers (C4) Environment supporting at least two (2) Combatant Command Exercises to satisfy Combatant Command training objectives, including the cyber threat to mission systems.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*

(4) Support a minimum of thirty (30) Coalition Interoperability Assurance and Validation (CIAV) events and provide a minimum of one hundred (100) recommendations to resolve end-to-end mission based interoperability issues, validate Tactics, Techniques, and Procedures, and support NATO Future Mission Networking (FMN) and U.S. Mission Partner Environment (MPE) implementation plans.

(5) Provide C2 Systems and Persistent C4 Environment supporting at least four (4) individual/team training events per year to meet training and certification objectives.

(6) Provide C2 Systems and Persistent C4 Environment to support at least two (2) Cyber Assessments supporting Cyber capability development.

(7) Integrate at least two (2) new capabilities per year supporting Combatant Command, Service, Agency, and Commercial Solutions for Classified and Mobile Computing program requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Management and Engineering Technical Services	C/CPFF	Various : Norfolk, Suffolk, Eglin	-	-		10.196	Mar 2016	12.898	Sep 2016	-		12.898	-	-	-
		Subtotal	-	-		10.196		12.898		-		12.898	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		10.196		12.898		-		12.898	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Joint C5I																												
Joint Information Environment/Mission Partner Environment									[redacted]																			

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 001 / *C5 Assessments and Analyses*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint C5I				
Joint Information Environment/Mission Partner Environment	1	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	Project (Number/Name) 002 / *C5 Capability Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
002: *C5 Capability Development*	0.000	0.000	7.079	6.594	-	6.594	6.590	6.637	6.637	6.637	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Lead C2 capability development and integration in order to achieve an interdependent joint force. This will be accomplished through four focus areas: Capability Development, C4 Architectures, Data and Services, and Interoperability and Integration.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: C5 Capability Development	-	7.079	6.594
Description: Lead C2 capability development and integration in order to achieve an interdependent joint force. This will be accomplished through four focus areas; Capability Development, C4 Architectures, Data and Services, and Interoperability and Integration.			
FY 2016 Plans: Functionally manage and develop joint C4/Cyber (C5) Joint Capabilities Integration and Development System (JCIDS) requirements and capability development needs and serves as direct liaison between operational users and material developers throughout the capability lifecycle. Coordinate with warfighter community, to include multi-national and other mission partners, to identify common requirements and priorities and to identify on-going and planned partner materiel and non-materiel efforts to address similar/common needs and capability gaps. Integration actions include the continued development and implementation of Mission Partner Environment (MPE) capabilities framework. Develop and integrate data and services requirements, standards, technical specifications, and policy to support improved interoperability and information sharing with joint, mission partners and other U.S. Government departments and agencies. Develop architectures and conduct analysis for the Joint Information Environment (JIE), Warfighting Mission Area (WMA), mission threads, best practices, and JCIDS documents that enables interoperability and integration. Provide a WMA Federated Architecture sharing environment for the Combatant Commands, Services and DoD agencies ensuring access, integration, and reusability off architecture artifacts. Collaborate with USD for Acquisition, Technology, and Logistics (AT&L), DoD Chief Information Officer (CIO), Combatant Commands, Services, Agencies, interagency and multinational partners to address integration and interoperability with joint and multinational forces, and other U.S. Government departments and agencies.			
FY 2017 Plans: Lead C2 capability development and integration in order to achieve an interdependent joint force. This will be accomplished through four focus areas;			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 002 / *C5 Capability Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(1) Capability Development - Sustain and utilize the Net-Enabled Requirements Identification Database (NRID) and the Decision Support Tool (DST) to provide accessibility and visibility into C2 capability needs and potential solutions for C2 stakeholders and decision-makers to consider. Develop/coordinate the annual Joint C2 Operational Priorities and obtain JROC-approval. Develop/ staff the FY 2019 Requirements Prioritization and Sequencing Plan and JCIDS documents - supports C2 capability prioritization and sequencing via the OUSD(AT&L)-sponsored Joint C2 Sustainment and Modernization Plan (SMP) process, with follow-on C2 capability production, integration, fielding and sustainment. (2) C4 Architectures - Develop architectures and conduct analysis for the Joint Information Environment (JIE), Mission Partner Environment (MPE), Warfighting Mission area (WMA), mission threads, best practices, C5 requirements and JCIDS documents that enables interoperability and integration. Provide a WMA Federated Architecture sharing environment for the Combatant Command, services and DoD agencies ensuring access, integration and reusability of architecture artifacts. Provide the analysis and integration of identified combat proven Special Operation Forces C2 “best practices” and demonstrate the benefits these integrated capabilities bring to Joint/Coalition forces and other agencies. (3) Data and Services - Develop, promote and integrate data and services requirements, standards, technical specifications, and policy to support improved interoperability and information sharing with joint, mission partners and other U.S. Government departments and agencies. (4) Interoperability and Integration - For DoD coalition operations, develop and track the FY 2017 Mission Partner Action Plan for CCMD, Service and Agency action. Establish a Federated Mission Networking threshold capability in NATO. Coordinate with NATO and partner nation Foreign Liaison Officers (FLOs) to identify and execute specific information sharing/collaboration initiatives. Support Afghan Mission Network integration and interoperability requirements. Support cyber training, capability development and assessments, separately and in coordination with the Department of Defense Cyber Range Environment (DECRE).			
Accomplishments/Planned Programs Subtotals	-	7.079	6.594

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 002 / *C5 Capability Development*

D. Acquisition Strategy

N/A

E. Performance Metrics

1) Secure JROC approval of the FY 2019 Joint C2 operational priorities defining C2 capability needs/gaps providing senior level oversight and direction to Joint C2 capability development.

(2) Secure DoD approval for seven (7) JCIDS requirements documents to support materiel development of Joint C2, Adaptive Planning/Execution, Global-Theater Security Cooperation, Readiness, and Cross Functional information technology capabilities enabling timely delivery of materiel solutions to meet warfighter capability needs/gaps.

(3) Ensure Joint C2 requirements development supports the DoD-directed Better Buying Power 100% by continuing the rapid development and fielding of virtualized C2 system capabilities to CCMDs and Services, i.e., GCCS-J Global (COP & I3), Agile Client—an x86 (PC-based) infrastructure, Enterprise Widget Storefront for web access of Joint C2 data and applications, Joint Planning and Execution Services to replace legacy systems.

(4) Provide two (2) planned releases of Global-Theater Security Cooperation Management Information System (G-TSCMIS) capability on both NIPRnet & SIPRnet for CCMDs/Services allowing G-TSCMIS use in a disconnected, intermittent, or limited bandwidth (DIL) environment, as well as providing an initial cross domain data exchange capability between security levels.

(5) Validate the architectures and engineering design specifications for twenty-seven (27) JIE and MPE projects.

(6) Conduct three (3) National Information Exchange Model Military Operations Domain Configuration Control Board sessions to improve and increase information sharing via promulgation of one Domain content update.

(7) Lead a minimum of six (6) Enterprise Service and Data Panels (ESDP) with the goal to improve and increase the interoperability and reusability of DOD Enterprise Services and Authoritative Data Sources.

(8) Include mission partnering concepts in four (4) Combatant Command and Service exercises.

(9) Establish at least two (2) new or enhanced information/sharing and collaboration areas NLT 30 Jun 17.

(10) Establish and refine processes and procedures to ensure FMN implementation is included in two (2) NATO exercises.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 002 / *C5 Capability Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C5 Capability Development - Contracts	C/FP	Various : Various	-	-		7.079		6.594	Sep 2015	-		6.594	-	-	-
		Subtotal	-	-		7.079		6.594		-		6.594	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		7.079		6.594		-		6.594	-	-	-

Remarks

This is a new Program Element (PE) for FY 2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY 2013 as a result of the JFCOM disestablishment. The following PEs will no longer be used after FY 2015: 0604828J - Joint FIRES Integration and Interoperability Team (JFII), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 002 / *C5 Capability Development*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Joint C4 architecture and C4/Cyber capability development																												
Joint C4 architecture and C4/Cyber capability development																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 002 / *C5 Capability Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint C4 architecture and C4/Cyber capability development				
Joint C4 architecture and C4/Cyber capability development	1	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 003 / *Joint Fires C2 Interoperability*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
003: *Joint Fires C2 Interoperability*	0.000	0.000	4.425	4.150	-	4.150	4.150	4.150	4.150	4.150	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 (JFS)/Joint Close Air Support (JCAS) and CID-FFT action plans to fulfill CJCSI-directed, General Officer/Flag Officer (GOFO) level responsibilities. Conduct JFS Executive Steering Committee (ESC) standardization team accreditation visits to U.S. and partner nation schoolhouses to ensure Memorandum of Agreement (MOA) signatories are accomplishing schoolhouse training in compliance with the Memorandums.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Fires C2 Interoperability	-	4.425	4.150

Description: 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 (JFS)/Joint Close Air Support (JCAS) and CID-FFT action plans to fulfill CJCSI-directed, General Officer/Flag Officer (GOFO) level responsibilities. Conduct JFS Executive Steering Committee (ESC) standardization team accreditation visits to U.S. and partner nation schoolhouses to ensure Memorandum of Agreement (MOA) signatories are accomplishing schoolhouse training in compliance with the Memorandums. Execute Joint Staff-sponsored Bold Quest 2017 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. These efforts directly support 2014 Quadrennial Defense Review and 2015 National Military Strategy goals to increase interoperability with allies and partners.

FY 2016 Plans:

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 (JFS)/ Joint Close Air Support (JCAS) and CID-FFT action plans to fulfill JROC-chartered, General Officer/Flag Officer (GOFO) level responsibilities. Conduct JFS Executive Steering Committee (ESC) standardization team accreditation visits to U.S. and partner nation schoolhouses to ensure Memorandum of Agreement (MOA) signatories are accomplishing schoolhouse training in compliance with the Memorandums. Execute Joint Staff-sponsored Bold Quest 2016 systems-of-systems interoperability

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 003 / *Joint Fires C2 Interoperability*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
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. ***FY 2017 Plans:*** Execute Joint Staff-sponsored Bold Quest 2017 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. These efforts directly support 2014 Quadrennial Defense Review and 2015 National Military Strategy goals to increase interoperability with allies and partners.			
Accomplishments/Planned Programs Subtotals	-	4.425	4.150

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

(1) Lead development of situational awareness and cooperative/non-cooperative identification capabilities that enable U.S. and NATO/Coalition warfighters to identify friendly, enemy, and neutral forces for “shoot/don’t shoot” decisions.

(2) Synchronize Service testing, acquisition and fielding of Mode 5 IFF capability, with focus on Full Operational Capability (FOC) in 2020. Monitor Service fielding progress of one hundred sixty-nine (169) platform types.

(3) Complete Definition Package for Block 2 of Digitally Aided Close Air Support (DACAS) coordinated implementation in conjunction with participating Service programs of record. Effort will enable over twenty (20) U.S. and partner nation systems to be more interoperable in the CAS mission area.

(4) Expand digital call-for-fire solution development to include enhanced multi-national interoperability with six (6) partner nations.

(5) Conduct Accreditation Assessments for fourteen (14) of thirty current signatory schoolhouses (8 Joint Terminal Attack Controller (JTAC), 2 Forward Air Controller (Airborne), and 4 Joint Fires Observer (JFO) Schoolhouses).

(6) Lead development and refinement of four (4) U.S. and NATO joint fires-related doctrine and Tactics, Techniques, and Procedures (TTP) publications.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 003 / *Joint Fires C2 Interoperability*

(7) Lead planning, coordination and execution of two (2) Bold Quest 2017 systems of systems interoperability assessment to facilitate U.S. and coalition integration.

(8) Plan and conduct quarterly Joint Fire Support and Combat ID-Friendly Force Tracking Executive Steering Committee and working group meetings to address identified shortfalls in those mission areas.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	Project (Number/Name) 003 / *Joint Fires C2 Interoperability*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Fires C2 Interoperability - Contracts	C/FP	Various : Various	-	-		4.425		4.150	Sep 2016	-		4.150	-	-	-
		Subtotal	-	-		4.425		4.150		-		4.150	-	-	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		4.425		4.150		-		4.150	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 003 / *Joint Fires C2 Interoperability*

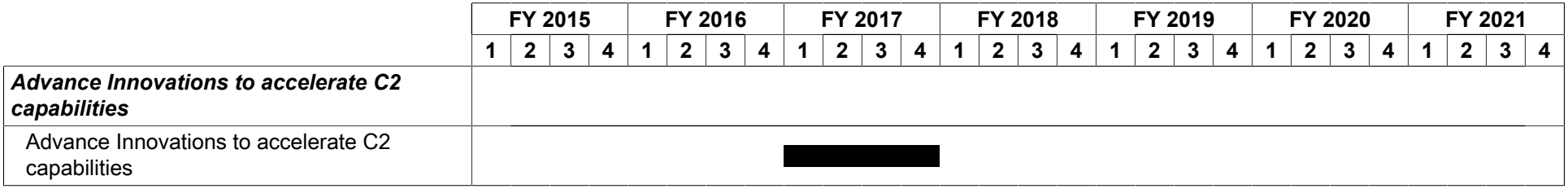

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604826J / *Joint C5 Capability Development, Integration, and Interoperability Assessments*	**Project (Number/Name)** 003 / *Joint Fires C2 Interoperability*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Advance Innovations to accelerate C2 capabilities				
Advance Innovations to accelerate C2 capabilities	1	2017	4	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604828J *I Joint FIRES Integration and Interoperability Team*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	12.946	2.447	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.393
P857: *Joint Deployable Analysis Team (JDAT)*	12.946	2.447	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.393
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The JFIIT mission is to employ scientific methods to research, investigate, test, assess, and evaluate current and emergent Joint command and control (C2) information systems and associated procedures. These activities measure capabilities and limitations, identify shortfalls and root cause, recommend and verify solutions, and validate joint capabilities. The resultant empirical outcomes influence Joint Capability development in areas such as Policy; Joint Doctrine; Tactics, Techniques and Procedures (TTP); integration and interoperability of capabilities. JDAT provides decision-quality data and cogent solutions to customers and stakeholders responsible for improving Joint C2 information systems integration and interoperability, informing acquisition decisions, and ensuring that Services and Agencies field integrated and interoperable systems. The emphasis of JFIIT efforts is the analysis of C2 information systems and supporting procedures to provide Services and Agencies findings and recommendations based on quantifiable data to improve Joint C2 integration and interoperability. Evaluations range from small, single-focus events to large, multi-event/venue exercises.

In FY 2016 this program element will be consolidated with PE 0604826J - Joint C5 (Command, Control, Communications, Computers, and Cyber) Capability Development, Integration, and Interoperability Assessments.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	7.102	0.000	0.000	-	0.000
Current President's Budget	2.447	0.000	0.000	-	0.000
Total Adjustments	-4.655	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY2015 Carryover	-4.655	-	-	-	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604828J *I Joint FIRES Integration and Interoperability Team*

Change Summary Explanation

In FY2016 this program element will be consolidated with PE 0604826J - Joint C5 (Command, Control, Communications, Computers, and Cyber) Capability Development, Integration, and Interoperability Assessments.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Fires Integration & Interoperability Team (JFIIT)	2.447	-	-

FY 2015 Accomplishments:

Analysis activities enhanced joint warfighter capabilities in support of U.S. National security requirements. Provided timely, facts-based findings and recommendations for action through the formal DoD decision-making processes used to validate operational requirements and apply funding to field effective, interoperable capabilities. Activities and benefits to DoD and warfighters are summarized below.

(1) Conducted analysis of joint fires capabilities at BOLD QUEST event. Assessed Joint-coalition capabilities relevant to the Joint Mission Threads (JMTs) of Coalition Intelligence, Surveillance, and Reconnaissance (CISR), joint fires, IAMD and Joint Close Air Support (JCAS) in order to identify interoperability gaps and integration shortfalls. Identified twelve (12) interoperability discrepancies between US systems for joint fires (limited to digitally aided fire support, DAFS) with eleven (11) findings reported to acquisition program offices and one resolved for US Army fire support systems. Analysis results inform US Government decisions to field interoperable and integrated US-Coalition capabilities. DoD stakeholders included Defense Information Systems Agency (DISA), Joint Staff , USA, and USAF; international defense stake holders include Canada (Canadian Forces Warfare Center), Denmark (Defence Command Denmark), Norway (Norwegian Battle Lab & Experimentation), Italy, France, United Kingdom, as well as NATO (NATO Communications and Information Agency).

(2) Assessed a Mission Partner Environment (MPE) during the scheduled BOLD QUEST event; applied the recently approved MPE capabilities definition packages (CDPs) to frame current and future assessments of MPEs and provide recommendations for improved MPE operations. Effective analysis of MPE performance through collaboration between DoD, Inter-Agency (IA) and Coalition partners inform capabilities development and subsequent decisions on mitigating gaps and shortfalls in the MPE capability.

(3) Collected data and provided analysis on the integration of counter-UAS (C-UAS) operational architectures, operational concepts, and tactics, techniques, and procedures (TTPs) in support of broader air and missile defense requirements during BLACK DART event. Evaluated existing combatant command plans for C-UAS operations; provided qualitative/quantitative findings with recommendations that inform the Integrated Air & Missile Defense (IAMD) roadmap. Effective analysis of C-UAS capabilities through collaboration within JS (J6 and J8) and among broader DoD, Inter-Agency (IA) and Industry partners informs Service decisions on the mitigation of adversary UAS capabilities. Service and combatant command stakeholders included USN, USAF, USA, NORAD/NORTHCOM, PACOM, and CENTCOM; IA stakeholders included Department of Homeland Security; and

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604828J *I Joint FIRES Integration and Interoperability Team*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
key foreign observers included UK/JAP/AUS/ROK. Also participating were select U.S. and foreign acquisition programs (both fielded and emerging technologies). (4) Identified and evaluated over ten (10) specific cyber vulnerabilities during DoD Enterprise Cyberspace Range Environment (DECRE) events; provided qualitative/quantitative findings with recommendations to participating programs, and Director Operational Test and Evaluation (DOT&E) to enhance planning for future cyber security events. Analysis of Joint C2 information systems and procedures, with data collected through exercise of validated DoD scenarios in an operationally relevant multi-phased event, inform DoD mitigation of cyberattacks against command and control systems. Service and combatant command stakeholders included NORTHCOM, DOT&E and JS.			
Accomplishments/Planned Programs Subtotals	2.447	-	-

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

N/A

F. Performance Metrics

N/A: PE is consolidating in FY 2016 - Refer to PE0604826J

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604828J / *Joint FIRES Integration and Interoperability Team*	**Project (Number/Name)** P857 / *Joint Deployable Analysis Team (JDAT)*

Remarks

N/A: PE Consolidating in FY2016 - reference PE0604826J

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604828J / *Joint FIRES Integration and Interoperability Team*	**Project (Number/Name)** P857 / *Joint Deployable Analysis Team (JDAT)*

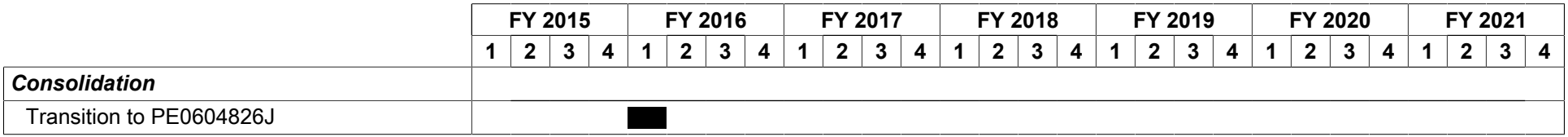

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604828J / *Joint FIRES Integration and Interoperability Team*	**Project (Number/Name)** P857 / *Joint Deployable Analysis Team (JDAT)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Consolidation				
Transition to PE0604826J	1	2016	1	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	307.305	36.230	33.983	32.759	-	32.759	32.581	34.971	34.971	35.570	Continuing	Continuing
P001: *Core*	100.988	18.913	14.183	9.029	-	9.029	9.343	10.271	10.271	10.476	Continuing	Continuing
P002: *Homeland*	67.544	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
P003: *Black Dart*	19.635	3.404	2.444	3.000	-	3.000	3.000	3.300	3.300	3.366	Continuing	Continuing
P004: *Joint Distributed Engineering Plant*	14.212	0.036	3.000	2.500	-	2.500	2.738	2.900	2.900	2.958	Continuing	Continuing
P005: *Nimble Fire*	53.177	8.362	8.000	12.230	-	12.230	12.000	12.500	12.500	12.650	Continuing	Continuing
P006: *Cruise Missile Combat Identification (CID)*	51.749	5.515	6.356	6.000	-	6.000	5.500	6.000	6.000	6.120	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense (DoD) chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff (JS), JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to air and missile defense issues. JIAMDO serves as the operational community's proponent for characteristics, requirements, and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the DoD's resource allocation structures. JIAMDO also leads AMD mission and utility analyses, integrates air and missile defense within the Force Protection joint capability area, and conducts evaluations, demonstrations of joint air and missile defense architectures, and provides advocacy for innovative, technically mature and affordable solutions.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains liaison offices at all major CCMD locations to facilitate coordination of integration issues and requirements. In particular, JIAMDO maintains close coordination with U.S. Strategic Command (USSTRATCOM) in support of ballistic missile defense of the U.S. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review the 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 at the direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the Air and Missile Defense Prioritized List and the Global Integrated Air and Missile Defense 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 U.S. Northern Command for homeland air and cruise missile surveillance issues and technical oversight of homeland capability solutions.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff					Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*			R-1 Program Element (Number/Name) PE 0605126J *I Joint Integrated Air & Missile Defense Organization (JIAMDO)*		
B. Program Change Summary ($ in Millions)	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**
Previous President's Budget	43.176	35.471	27.967	-	27.967
Current President's Budget	36.230	33.983	32.759	-	32.759
Total Adjustments	-6.946	-1.488	4.792	-	4.792
• Congressional General Reductions	-	-0.026			
• Congressional Directed Reductions	-	-1.462			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Additional support to the Nimble Fire effort.	-	-	4.792	-	4.792
• FY2015 Carryover	-6.946	-	-	-	-

Change Summary Explanation

JIAMDO-Core: The Joint Staff reduced reliance upon contracted advisory and assistance service efforts and increased leverage upon organic (military and federal civilian) labor.

JIAMDO-Homeland: Programs will be near development completion and conducting Military Utility Assessment, which requires live assets and integration development.

JIAMDO-Nimble Fire: Increased effort in FY2017.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	Project (Number/Name) P001 / *Core*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P001: *Core*	100.988	18.913	14.183	9.029	-	9.029	9.343	10.271	10.271	10.476	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense (DoD) chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff (TJS), JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to air and missile defense issues. JIAMDO serves as the operational community's proponent for characteristics, requirements, and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the DoD's resource allocation structures. JIAMDO also leads AMD mission area and utility analyses, integrates air and missile defense within the Force Protection joint capability area, and conducts evaluations and demonstrations of joint air and missile defense architectures and concepts.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains liaison offices at all major CCMD locations to facilitate coordination of integration issues and requirements. In particular, JIAMDO maintains close coordination with U.S. Strategic Command (USSTRATCOM) in support of ballistic missile defense of the U.S. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review the 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 at the direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the Air and Cruise Missile Defense Prioritized Capability List, the Global Integrated Air and Missile Defense Assessment, and analysis of the Ballistic Missile Defense System (BMDS). 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 U.S. Northern Command for homeland air and cruise missile surveillance issues.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Core	18.913	14.183	9.029
Description: Provides overall staff support for JIAMDO operations in the area of ballistic missile defense, air and cruise missile defense, and homeland defense. This includes performing analyses, demonstrations, and programmatic assessments of technology, operations, requirements, and weapons systems. In coordination with Services and CCMDs, JIAMDO Core also leads the definition, assessment, development, and approval of Joint AMD Operational Concepts, Operational Architectures, and capability requirements to guide the Department's joint/interagency/combined fully integrated and net-centric capable air defense (including defense against cruise missiles, unmanned aerial vehicles, and ballistic missiles). JIAMDO Core also: • Develops and integrates joint exercises, simulations, war-games, force resource allocations, and interoperability initiatives • Manages relevant Congressional interaction and CCMD interface through a cadre of liaisons collocated with major headquarters • Directly supports and sponsors homeland air surveillance related demonstration and analysis activities			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P001 / *Core*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017

• Runs the AMD Working Group focusing CCMD, Joint Staff, and Service collaboration efforts in the generation of joint concepts and development of the integrated AMD architecture and roadmap
• Develops U.S. positions for, and serves as the U.S. representative to the NATO Air and Missile Defense Committee

JIAMDO Core also enables strategic planning development, infrastructure, security, travel, administrative, and other support activities. Funding pays for: Contractor Systems Engineering and Technical Assistance (SETA) support for Air & Cruise Missile Defense (ACMD), Ballistic Missile Defense (BMD), Homeland Air Security (HAS) strategic planning, senior level briefings, and JIAMDO white papers, leased office space including all upkeep services, all travel costs for government, and contractor support personnel, including support for Combatant Commander liaison personnel travel, multiple levels of security including lease support for a Joint Worldwide Intelligence Communications System (JWICS) communications line, and Special Compartmented Information (SCI) terminals (due to the classified nature and the diverse content of work in the JIAMDO portfolio), 24-hour physical security force and alarm monitoring, and maintenance, daily on-site security personnel to meet DOD, National Industrial Security Program Operating Manual (NISPOM), and other security regulations, for all administrative and support functions, all associated Information Technology (IT) support, copier purchase and maintenance, as well as basic office supplies and furniture, telephones, telephone lines, classified telephones, and classified/unclassified data connections.

FY 2015 Accomplishments:
Performed Air and Cruise Missile Defense, and Ballistic Missile Defense directed studies in support of the Chairman (such as the fourth of a series of quantitative performance analysis, the Joint Capability Mix Study IV); provided analytical support into the premier ballistic missile defense wargame, NIMBLE TITAN; addressed critical air and missile defense related issues to NATO; and related program support activities including: contracting, finance, systems engineering and technical assistance, administration, security, communications, leased space and supply. Planned additional reductions in contract advisory and assistance services are projected. Planning will begin on the solicitation of CORE SETA contract.

FY 2016 Plans:
Perform Airand Cruise Missile Defense, and Ballistic Missile Defense directed studies in support of the Chairman and related program support activities including: contracting, finance, systems engineering and technical assistance, administration, security, communications, leased space and supply. Planned additional reductions in contract advisory and assistance services are projected. Planned award of a new SETA contract is anticipated in 2016.

FY 2017 Plans:
Continue performing Ballistic Missile Defense directed studies with changes in program support activities as a result of reorganization and office move to the Pentagon. Ancillary support functions such as administrative, security, communications, Information Technology and finance will be provided by the JS. The JS reduced reliance upon contracted assistance service

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P001 / *Core*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
efforts and increased leverage upon organic (military and federal civilian) personnel. Systems Engineering and Technical Assistance contract will still be in place.			
Accomplishments/Planned Programs Subtotals	18.913	14.183	9.029

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Budget Activities 1, 2, 3 and 6.

E. Performance Metrics

(1) Support two major Nimble Fire exercises during FY 2016.

(2) Conduct two Air and Missile Defense Working Groups per month.

(3) Support U.S. Representative to NATO Air Defense Council (NADC) to include 2 overseas NADC meetings per year.

(4) Develop and maintain electronic library of current Joint and Service AMD Publications.

(5) Develop and maintain operational architecture compliance with DoD Architectural Framework (DODAF) standards.

(6) Ensure 100% of all government employee travel is in accordance with the Joint Federal Travel Regulation/Joint Travel Regulation.

(7) Maintain all unclassified/classified LANs on a daily basis in accordance with TJS Office of the Chief Information Officer guidance/policy.

(8) Ensure all computers, NIPRNET/SIPRNET, are refreshed according to J6 policy/guidance.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	Project (Number/Name) P002 / *Homeland*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P002: *Homeland*	67.544	0.000	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 Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense (DoD) chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff (JS), JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to air and missile defense issues. JIAMDO serves as the operational community's proponent for characteristics, requirements, and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the DoD's resource allocation structures. JIAMDO also leads AMD mission and utility analyses, integrates air and missile defense within the Force Protection joint capability area, and conducts evaluations, demonstrations of joint air and missile defense architectures, and provides advocacy for innovative, technically mature and affordable solutions.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains liaison offices at all major CCMD locations to facilitate coordination of integration issues and requirements. In particular, JIAMDO maintains close coordination with U.S. Strategic Command (USSTRATCOM) in support of ballistic missile defense of the U.S. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review the 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 at the direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the Air and Missile Defense Prioritized List and the Global Integrated Air and Missile Defense Assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early 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 U.S. Northern Command for homeland air and cruise missile surveillance issues and technical oversight of homeland capability solutions.

The Homeland program transitioned to a USAF-led Program of Record across the Future Year Defense Program in the beginning of FY 2016. JIAMDO will retain operational and requirements oversight.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	Project (Number/Name) P003 / *Black Dart*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P003: *Black Dart*	19.635	3.404	2.444	3.000	-	3.000	3.000	3.300	3.300	3.366	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense (DoD) chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff (TJS), JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to air and missile defense issues. JIAMDO serves as the operational community's proponent for characteristics, requirements, and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the DoD's resource allocation structures. JIAMDO also leads AMD mission area and utility analyses, integrates air and missile defense within the Force Protection joint capability area, and conducts evaluations and demonstrations of joint air and missile defense architectures and concepts.

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Black Dart	3.404	2.444	3.000
Description: Provides funding to support administration and execution of Black Dart demonstrations. Black Dart is a unique joint, interagency demonstration focusing on rapid development and implementation of Counter - Unmanned Aircraft Systems (CUAS) technology from readily-available commercial and governmental products.			
FY 2015 Accomplishments: Executed live-fly, live-free C-Unmanned Aircraft System (C-UAS) technology demonstration to assess and validate existing and emerging IAMD capabilities. The program presented emerging solutions to inform requirements decision-makers. Identified and developed IAMD operational concepts, system interoperability, and operational architectures for C-UAS mission set. Black Dart advocated for warfighters' desired C-UAS capabilities and affordable, integrated solutions. Integrated Combat Command			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P003 / *Black Dart*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
sponsored scenarios, employing an intel-driven mix of threat cruise missile and UAV target surrogates acting in concert, which enabled CCMDs to make real-time changes to Tactics, Techniques, and Procedures TP/C2 based on Black Dart results. The program integrated numerous Joint Test and Demonstrations into one even to including: Joint Multi-Platform Advanced Combat ID JCTD; Cyber Capabilities for USAF; Electronic Attack Development; and Laser Negation System Development. Developed TTPs and conducted weapons system analyses for AH-1Z, UH-1Y, EA-18G, EC-130H, AWACS, MH-60R/S, EC-130H, and RC-135. ***FY 2016 Plans:*** Continued FY 2015 plans including: Demonstrate UAS capabilities to employ within visual range (WVR) and beyond visual range (BVR) weapons in a counter-UAS, counter-air, and counter-cruise missile role. Expand the breadth, complexity, and integration of cyber capabilities. ***FY 2017 Plans:*** Demonstrate UAS capabilities to employ within visual range and beyond visual range weapons in a counter-UAS, counter-air, and counter-cruise missile role. Expand the breadth, complexity, and integration of additional non-kinetic capabilities to include electronic and cyber effects. To the maximum extent possible, include foreign partner system and personnel participation.			
Accomplishments/Planned Programs Subtotals	3.404	2.444	3.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Budget Activities 1, 2, 3 and 6.

E. Performance Metrics

(1) Complete events within schedule and budget. Events provide useful data to improve C-UAS capability.

(2) Document gaps, develop and substantiate hardware, software, and employment concepts.

(3) Field C-UAS capability.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	Project (Number/Name) P004 / *Joint Distributed Engineering Plant*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P004: *Joint Distributed Engineering Plant*	14.212	0.036	3.000	2.500	-	2.500	2.738	2.900	2.900	2.958	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains liaison offices at all major CCMD locations to facilitate coordination of integration issues and requirements. In particular, JIAMDO maintains close coordination with U.S. Strategic Command (USSTRATCOM) in support of ballistic missile defense of the U.S. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review the 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 at the direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the Air and Missile Defense Prioritized List and the Global Integrated Air and Missile Defense Assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early 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 U.S. Northern Command for homeland air and cruise missile surveillance issues and technical oversight of homeland capability solutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Distributed Engineering Plant (JDEP)	0.036	3.000	2.500
Description: Conducted a joint test event to assess the interoperability of joint, integrated air and missile defense weapon systems that leveraged commercial-off-the-shelf (COTS) Networks to perform Joint Integrated Fire Control. This effort provided users the means to create family-of-system (FoS) environments by linking existing capabilities using hardware, software, and operators in a live-fly environment.			
FY 2015 Accomplishments: JDEP conducted an appropriate distributed test event to assess the interoperability of coalition, joint, integrated air and missile defense weapons systems. The program provided users the means to create FoS environments by linking existing capabilities			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P004 / *Joint Distributed Engineering Plant*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
using hardware, software, and operator-in-the-loop. Link existing Coalition, Service and Joint combat system engineering and test sites via distributed communications. Reduce developmental cycle times by leveraging existing facilities. Extremely positive results from the earlier four Coalition Correlation / Decorrelation Interoperability Testing (C/DIT) events were the basis for extending the International Project Arrangement (PA) between the DoD OUSD (AT&L) / JCS and United Kingdom MoD, out to FY 2019 in PA Amendment One. High Level Objectives (HLO) since these test events began in FY 2010: (HLO #1) Assess Correlation / Decorrelation Interoperability of Link-16 systems under the STANAG 5516 Ed 4 and MILSTD 6016E for the U.S. Navy's E-2C, U.S. Army's Patriot Missile System and United Kingdom Royal Air Force E-3D (AWACS). (HLO #2) Assess STANAG 5602 Ed 3 interoperability between the U.S. & U.K. platforms using their SIMPLE protocol communication devices Common Connectivity Device (CCD) for the U.S. E-2C Hawkeye and U.S. Patriot and the Multi-Link Test Facility (MLTF) for the U.K. AWACS E-3D. (HLO #3) Provide input to Tactics, Techniques and Procedures (TTPs) and Capabilities & Limitations (CAPS&LIMS) to fielded tactical software. (HLO #4) Assess interoperability Correlation / Decorrelation performance and impact when operating with Coalition units. (HLO #5) Verify network architecture is capable of providing an adequate infrastructure to meet the other C/DIT event objectives. ***FY 2016 Plans:*** Fund an appropriate joint distributed test event to assess the interoperability of joint, integrated air and missile defense weapons systems. Provide users the means to create FoS environments by linking existing capabilities using hardware, software, and operator-in-the-loop. Link existing Service and Joint combat system engineering and test sites via distributed communications. Reduce developmental cycle times by leveraging existing facilities. ***FY 2017 Plans:*** Expand on the FY 2016 Joint JDEP C/DIT-16 / AGILE FIRE event results by expanding and including the entire IAMD architecture Link-16 hardware-in-the-loop FoS platforms in a robust USFK IAMD operational scenario.			
Accomplishments/Planned Programs Subtotals	0.036	3.000	2.500

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P004 / *Joint Distributed Engineering Plant*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Budget Activities 1, 2, 3 and 6.

E. Performance Metrics

(1) Each JDEP event develops measures of effectiveness (MOE) & measures of performance (MOP) based on an eighteen month test planning and event process.
(2) Complete events within schedule and budget.
(3) Events provide useful data to improve Air Missile Defense interoperability, with implemented and recommended corrective changes.
(4) Events must be linked to the current approved IAMD Architecture, provide joint benefit, contribute to Joint Interoperability, and address IAMD ICD capability gaps.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	Project (Number/Name) P005 / *Nimble Fire*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P005: *Nimble Fire*	53.177	8.362	8.000	12.230	-	12.230	12.000	12.500	12.500	12.650	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: JIAMDO Nimble Fire	8.362	8.000	12.230
Description: The Department's only joint integrated air and missile defense operator-in-the-loop simulation that is comprised of current and future land, sea, and air weapon systems representing each of the Services AMD capabilities. Enhances air and missile defense capability through the exploration of joint concepts and capabilities using current and future IAMD systems exercised by highly experienced operators against an integrated threat and providing quantifiable data that supports senior leadership within the Department of Defense, Combatant Commanders, and the Services.			
FY 2015 Accomplishments: - Funded and executed two (2) Joint virtual simulation events and directly supported two (2) Service and Program Office sponsored events,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P005 / *Nimble Fire*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Continued to provide and improve simulation environment and capabilities which enable Joint Force to integrate IAMD capabilities in accordance with the Chairman's Joint IAMD Vision 2020, - Improved blue force systems and capabilities to represent projected FYDP +2 upgrades, - Partnered with USSTRATCOM to improve overall Electronic Warfare capabilities, - Collaborated with AMRAAM project office to standardize modeling of air-to-air missiles on all U.S. Navy and U.S. Air Force weapon systems, - Integrated 4 additional Joint Strike Fighter simulations to better explore Joint interoperability, - Continued to investigate future gateway concept contributions to Joint IAMD, - Strengthened ties with intelligence community (e.g., Office of Naval Intelligence, Missile and Space Intelligence Center, and National Air and Space Intelligence Center) for improved threat representation, - Explored the impacts of Electronic Attack, emerging CONOPS/TTP's, offensive cyber operations, and Integrated Fire Control to the IAMD mission area, - Additional details are classified.			
FY 2016 Plans: Fund and execute at least 2 Joint events and provide direct support for up to 3 Service, MDA or COCOM sponsored events. Continue to improve overall environment capabilities exploring all aspects of the Chairman's Joint IAMD Vision 2020. Continue to improve blue force systems and capabilities to represent projected FYDP+2 upgrades. Continue to investigate future gateway concept contributions to Joint IAMD. Continue to strengthen ties with intelligence community (e.g., ONI, MSIC, NASIC) for improved threat representation.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P005 / *Nimble Fire*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Enhance overall Infrared (IR) capabilities. Explore the impacts of Electronic Attack, emerging CONOPS/TTP's, offensive cyber operations, and Integrated Fire Control to the IAMD mission area. Explore classified joint force capabilities and the associated impact to IAMD. ***FY 2017 Plans:*** - Fund and execute (2) Joint events and provide support for up to three (3) Service, MDA, or CCMD sponsored events, - Improve blue force systems and capabilities to represent projected FYDP +5 upgrades, - Partner with USAF IAMD Cyber Lead and USCYBERCOM to improve modeling of offensive and defensive cyber effects in the simulated environment, - Explore, develop, and improve upon the space-layer in the environment and its contribution to Joint IAMD, - Explore Left-Of-Launch and other Non-Kinetic Effects and their impact on Joint IAMD, - Continue to investigate future gateway concept contributions to Joint IAMD, - Continue development and exploration of impacts of Electronic Attack, emerging CONEMPS/TTP's, and Integrated Fire Control to IAMDO mission area, - Explore classified joint force capabilities and associated impact to IAMD, - Additional details are classified.			
Accomplishments/Planned Programs Subtotals	8.362	8.000	12.230

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605126J / *Joint Integrated Air & Missile Defense Organization (JIAMDO)*	**Project (Number/Name)** P005 / *Nimble Fire*

D. Acquisition Strategy

Not required for Budget Activities 1, 2, 3 and 6.

E. Performance Metrics

(1) Complete events within schedule and budget.
(2) Document gaps and shortfalls.
(3) Inform the Joint Capabilities Board (JCB) on results and findings.
(4) Specific details are classified.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
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)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P006: *Cruise Missile Combat Identification (CID)*	51.749	5.515	6.356	6.000	-	6.000	5.500	6.000	6.000	6.120	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Integrated Air and Missile Defense Organization (JIAMDO) is the organization within the Department of Defense (DoD) chartered to plan, coordinate, and oversee Joint Air and Missile Defense (AMD) requirements, joint operational concepts, and operational architectures. As part of the Joint Staff (JS), JIAMDO supports the Chairman in meeting his Title 10 responsibilities as they relate to air and missile defense issues. JIAMDO serves as the operational community's proponent for characteristics, requirements, and capabilities in air and missile defense, and is the joint air and missile defense resource proponent within the DoD's resource allocation structures. JIAMDO also leads AMD mission and utility analyses, integrates air and missile defense within the Force Protection joint capability area, and conducts evaluations, demonstrations of joint air and missile defense architectures, and provides advocacy for innovative, technically mature and affordable solutions.

JIAMDO has established a close partnership with Combatant Commands (CCMDs) and maintains liaison offices at all major CCMD locations to facilitate coordination of integration issues and requirements. In particular, JIAMDO maintains close coordination with U.S. Strategic Command (USSTRATCOM) in support of ballistic missile defense of the U.S. JIAMDO provides the CJCS and the Joint Requirements Oversight Council the ability to meet statutory responsibilities to review the 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 at the direction of the CJCS, JIAMDO supports USSTRATCOM in the development of the Air and Missile Defense Prioritized List and the Global Integrated Air and Missile Defense Assessment and analysis of the Ballistic Missile Defense System. JIAMDO supports the USSTRATCOM ballistic missile early 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 U.S. Northern Command for homeland air and cruise missile surveillance issues and technical oversight of homeland capability solutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Cruise Missile Combat Identification (CID)	5.515	6.356	6.000
Description: Develops joint Counterair Combat Identification technology, and positions it for fielding on front-line weapon systems. Monitors, assesses, and enhances joint AMD Combat ID programs.			
FY 2015 Accomplishments: Details of this program are classified.			
FY 2016 Plans: Details of this program are classified.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
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)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Details of this program are classified.			
Accomplishments/Planned Programs Subtotals	5.515	6.356	6.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Budget Activities 1, 2, 3 and 6.

E. Performance Metrics

Details of this program are classified.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0204571J *I Joint Staff Analytical Support (JSAS)*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	8.601	4.915	5.983	7.464	-	7.464	6.363	5.751	5.751	5.751	Continuing	Continuing
P001: *Future Joint Force Development*	0.018	4.392	5.983	5.564	-	5.564	5.763	5.751	5.751	5.751	Continuing	Continuing
P002: *Global Force Management Data Initiative (GFM DI)*	8.583	0.523	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
P003: *GFM DI Enterprise Force Structure (EFS) Integration*	0.000	0.000	0.000	1.900	-	1.900	0.600	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Staff Analytical Support (JSAS) family of programs provides defense analytical support capabilities for the Joint Staff (TJS) and Combatant Commands (CCMDs). JSAS encompasses the developmental tools and infrastructure required to conduct analyses and formulates the results to best assist the Chairman in fulfilling his statutory responsibilities. Key deliverables provided by JSAS include wide-ranging force structure assessments, course of action development for the Joint Force environment, analyses and studies to aid in decision-making, and other analysis efforts to implement timely, low-cost initiatives.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	10.321	7.673	5.812	-	5.812
Current President's Budget	4.915	5.983	7.464	-	7.464
Total Adjustments	-5.406	-1.690	1.652	-	1.652
• Congressional General Reductions	-	-0.017			
• Congressional Directed Reductions	-	-1.673			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustment	-	-	1.652	-	1.652
• FY2015 Carryover	-5.406	-	-	-	-

Change Summary Explanation

Addition of the Global Force Management (GFM) Data Initiative Enterprise Force Structure (EFS) Integration project to provide critical upgrades to GFM mission applications to meet CCMD and warfighter requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0204571J / *Joint Staff Analytical Support (JSAS)*	Project (Number/Name) P001 / *Future Joint Force Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P001: *Future Joint Force Development*	0.018	4.392	5.983	5.564	-	5.564	5.763	5.751	5.751	5.751	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Staff Analytical Support (JSAS) program supports the Chairman of the Joint Chiefs of Staff US US Code Title 10, Subtitle A, Part I, Chapter 5, Section 153 statutory responsibilities that directs the analytical support, management, development, evaluation, and implementation of joint concepts. The Joint Concepts Program provides management capabilities and analytical support for the Joint Staff, Combatant Commands, and Services to execute the Joint Concepts Program. Key deliverables include: CJCSI 3010 Guidance for Development and Implementation of Joint Concepts; a comprehensive view of the future operating environment; identification of joint concepts necessary to address future operating environment challenges and achieve objectives of the National Military Strategy; evaluation and testing of joint concepts; and implementation of joint concepts into DOTMLPF in order to advance the operational effectiveness of the future Joint Force and enable the introduction of new capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Future Joint Force Development	4.392	5.983	5.564

Description: FY 2015 efforts focused on supporting the President's "Sustaining U.S. Global Leadership Priorities for the 21st Century Defense" with emphasis on concept assessment of the Chairman's Capstone Concept for Joint Operations, implementing the Joint Operational Access Concept, and developing new operational concepts to support achievement of the NMS. Specific work focused on joint concept development, implementation, and assessment through the Iron Crucible Wargaming series resulting in joint capability gap analysis and recommendations for non-materiel solutions that will improve current and future joint force capability including operating in anti-access and area denial environments, joint command & control, counterterrorism, and defeating threats in all domains, including cyber.

FY 2015 Accomplishments:

Specific work focused on developing, implementing, and evaluating joint concepts. The CJCS approved four new joint concepts that were completed and began implementation planning in FY 2015: Joint Concept for Rapid Aggregation, Joint Concept for Electromagnetic Spectrum Operations, Joint Concept for Logistics version 2.0, and Joint Concept for Health Services. Seven Joint Concepts were initiated and will be completed in FY16: Joint Concept for Cyberspace, Joint Concept for Preventing the Use or Transfer of WMD, Joint Concept for Human Aspects in Military Operations, Joint Concept for Access and Maneuver in the Global Commons, Joint Concept for Robotic and Autonomous Systems, Joint Concept for Operating in the Information Environment, and Joint Concept for Integrated Campaigning. The FY15 update of the Joint Operational Access Implementation Plan was completed and approved by the CJCS in August 2015 and work has begun on the FY16 update. An update of two key

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P001 / *Future Joint Force Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
joint force development documents were initiated: the CJCS's Capstone Concept for Joint Operations that describes the vision for how joint forces will operate in the future and guides all joint force development; and the DJ-7's Joint Operating Environment that describes military joint force challenges based on the anticipated future security environment of 2035. An update of the CJCSI 3010 began with expected completion in FY 2016. Twelve joint concepts were archived after extensive staffing and approval by the DJS during Phase I of a legacy concept review. Fourteen joint concepts are under review for archiving in FY 2016 as part of Phase II of a legacy concept review. The draft Joint Concept for Robotics and Autonomous Systems was evaluated in an analytic workshop as part of the concept development process, and produced refined ideas to shape the Department's approach to the impact of robotics and autonomous systems to Joint Warfighting over the next 20 years. As a result of concept assessment of the Chairman's Capstone Concept for Joint Operations, feedback was provided to inform DoD decision making on Goldwater-Nichols Act reviews including that Senior leaders require integrated processes to develop and implement global crisis-response options, anticipate cross-CCMD challenges, assess risk, make timely resource allocation decisions, integrate special capabilities, and communicate strategic priorities. Specific results: - recommended re-examining above CCMD C2 measures to support global decision-making during high-demand multi-AOR crises. This TTX also developed ways to accelerate logistics planning and improve feasibility of CCDR estimates prior to the CJCS/SECDEF review. - suggest global synchronization is impacted at two levels: (1) above CCMD through strategic guidance, authorities, resource allocation, and risk assessment; and (2) across-CCMD through access, force sharing, information sharing, and the harmonizing of actions. This SLS deliberated the challenges in force management, pre-conflict cross-CCMD coordination, shared battle rhythms, and supported/supporting command relationships. - identified ways to integrate Defense and National Intelligence systems for more effective collection management and more agile ISR and PED resource management. Initiatives seek improved asset awareness across the globe, better management tools, and expanded force management authorities. IB 15-3 results provide timely information to DoD leadership as they consider changes to the Unified Command Plan (UCP) and other ways to overcome global ISR challenges. IMPACTS: The IRON CRUCIBLE Series influences senior leaders' perspectives on global synchronization and continues to expand DoD understanding of critical requirements for global agility and global synchronization. Event reports and writings on			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P001 / *Future Joint Force Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
global agility have impacted senior Department leaders and contribute to the narrative on innovation and efficiencies in the 2015 NMS. The Series has produced 30 recommendations for force development in the areas of policy, doctrine, and training. ***FY 2016 Plans:*** Concept Development work will focus on completing the update of the Capstone Concept for Joint Operations and the Joint Operating Environment. Seven joint concepts started in FY 2015 will be completed and submitted for CJCS approval. Implementation planning for the seven joint concepts will be initiated. The CJCSI 3010 will be updated and approved with improved terminology and process descriptions to guide joint concept development and implementation standards and practices across the Department of Defense. Additional legacy joint concepts will be archived in FY 2016 based on extensive collaboration with the joint concept community and approval by the Director, Joint Staff (DJS). Concept Assessment efforts will assess multiple joint concepts against future challenges, and support ongoing actions for joint concept transition. This work will be shaped by the learning needs from joint concept sponsors. The proposed campaign includes three lines of effort, an initial workshop to refine learning needs, and a final workshop to review findings and develop recommendations for joint force development. ***FY 2017 Plans:*** Assess the Family of Joint Concepts based on the Capstone Concept for Joint Operations and identify new concepts that are needed to address the challenges of the future operating environment. Continue implementing approved joint concepts in order to advance the operational effectiveness of the future Joint Force and enable the introduction of new capabilities. Conduct IRON CRUCIBLE Series events to assess the body of ideas in joint concepts aligned to senior leader priorities including focus on Russia, China, North Korea, Iran and ISIS, hybrid or gray zone conflict, cyberspace and robotics and autonomous systems.			
Accomplishments/Planned Programs Subtotals	4.392	5.983	5.564

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Concept development performance metrics are derived from the Chairman's Title 10 responsibilities and CJCSI 3010.02D Guidance for Development and implementation of Joint Concepts and, as such, support the purpose of informing the Department's senior leadership by examining military problems and providing an

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P001 / *Future Joint Force Development*

azimuth for future force development. As a component of the overall Joint Force Development system, concept development and implementation products or processes are highly qualitative in nature; there are few strong quantitative performance measures in proposing new operational approaches, whether a concept is achievable, or if they inform decisions on joint capabilities. The follow metrics apply to the role of Joint Concepts in the Joint Strategic Planning System:

Performance measure 1 - Identify concepts that must be developed to support defense needs and priorities. Metrics: Process is complete. Product is on time. Analysis is thorough.

Performance measure 2 – Develop Joint Concepts assigned by CJCS and General Officer Steering Committee. Metric: Central idea and principles inform leadership and capability assessments.

Performance measure 3 – Conduct assessments that support implementation of approved Joint Concepts. Metrics: assessments and wargames inform or guide materiel and non-materiel capability development.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0204571J / *Joint Staff Analytical Support (JSAS)*	Project (Number/Name) P002 / *Global Force Management Data Initiative (GFM DI)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P002: *Global Force Management Data Initiative (GFM DI)*	8.583	0.523	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 Joint Staff Analytical Support (JSAS) family of programs provides defense analytical support capabilities for the Joint Staff (TJS) and Combatant Commands (CCMDs). JSAS encompasses the developmental tools and infrastructure required to conduct analyses and formulates the results to best assist the Chairman in fulfilling his statutory responsibilities. Under the umbrella of analytical support tools are the Automated Global Force Management Tool (AGT) and the Collaborative Issue Resolution Tool (CIRT), both which will meet requirements set forth in Title 10 U.S.C. and the Unified Command Plan (UCP) for automating the Global Force Management Implementation Guidance Forces For (Assignment and Apportionment) tables. Additionally, the Joint Organizational Server (JOS) will be the enabler system for Joint Staff personnel to be entered, near-real-time, into the automated Forces For Process.

RDT&E efforts for GFM DI ends in FY2015.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Global Force Management Data Initiative (GFM DI)	0.523	-	-
Description: RDT&E funds for the Global Force Management (GFM) program will enable the Assignment, Allocation, and Apportionment functions for forces to meet the requirements set forth in Title 10 U.S.C. and the Unified Command Plan (UCP). The development of the Secretary of Defense's "Forces for Unified Commands" Memorandum Assignment Tables has historically been a labor intensive staffing process conducted annually. The automated GFM Toolset is the first downstream consumer of force structure data resident in the seven organization (org) servers that are made available by the GFM Data Initiative (DI) effort. CIRT has streamlined force management, increased common understanding of force assignment, and supported timely force management decisions. The objective is to automate the generation of the Global Force Management Implementation Guidance (GFMIG) and Forces For Unified Commands (Forces For) Assignment, Apportionment, and Allocation tables. These efforts will flatten, streamline, and automate the current process while providing high fidelity data and transparency, and enhance Combatant Commander risk assessment to operational plans. The Joint Organizational Server (JOS) will be the enabler system for Joint Staff personnel to be entered, near-real-time, into the automated Forces For Process. Failure to fund for this effort negatively impacts the ability of the Services, CCMDs, Joint Staff (JS) and Office of the Secretary of Defense (OSD) to efficiently manage force structure resources.			
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P002 / *Global Force Management Data Initiative (GFM DI)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Finalize the AGT for Assignment and Apportionment functions to meet GO/FO Staffing cycle event for AGT verification testing. Enable full Joint Operations Capability for two-way interface with individual service management systems and OSD servers.			
Accomplishments/Planned Programs Subtotals	0.523	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Specific performance metrics are being developed.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0204571J / *Joint Staff Analytical Support (JSAS)*	Project (Number/Name) P003 / *GFM DI Enterprise Force Structure (EFS) Integration*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P003: *GFM DI Enterprise Force Structure (EFS) Integration*	0.000	0.000	0.000	1.900	-	1.900	0.600	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

GFM DI Enterprise Force Structure (EFS) Integration effort provides the next steps for GFM Mission Application enhancements intrinsic to balancing Global Force Demand against the Total Military Force. This is complex, multi-variant and requires modernized technologies that must provide integrated information by linking authoritative force structure data (derived from the GFM DI Organizational Servers) to C2 data (resident in GFM Mission Applications). The Joint Staff Operations Directorate (J3) is the functional leader for GFM Allocation and GFM Mission Applications. Accordingly, TJS will employ a joint strategy for efficiently fulfilling Enterprise Force Structure (EFS) data utility.

The DoD must quickly transition from legacy systems that promulgate data disparity across the Defense enterprise in order to meet the National Military Objectives that have evolved from large force scenarios to operations that include small-to-full scale activities. As stated in both the NSS and NMS, our adversaries demonstrate the ability to adapt to kinetic or non-kinetic terrain. Consequently, Information Technology (IT) superiority, capabilities, and recognition of associated vulnerabilities are an operational imperative. Yet, warfighters, strategic planners and GFM decision makers are unable to seamlessly exchange information in a manner that keeps pace with globally changing threats to rapidly and accurately accomplish force sourcing activities to support SecDef allocation decisions. TJS is mandated to utilize the Service Org Server (OS) Enterprise Force Structure (EFS) data to enhance managing, assessing, and displaying the worldwide disposition of U.S. forces. Key deliverables include incrementally developed, operationally realistic capability enhancements focused on Resource-Informed Planning and GFM sourcing functionality required by JROCM 111-14, the Capability Development Document (CDD) for Global Force Management Data Initiative (GFM DI); JROCM 073-13, Joint Command and Control (JC2) Capability Definition Package (CDP); Joint Operation Planning Process (JOPP) and Assessment CDP; and Force Planning & Deployment Planning/Execution CDP.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Critical upgrades to GFM Mission Applications directly supporting Enterprise Force Structure (EFS) Integration.	-	-	1.900
Description: The GFM Mission DI EFS Integration effort requires RDT&E funds to upgrade GFM Mission Applications in order to ensure GFM DI Next Steps Allocation Implementation is achieved. This addresses the final phases for the GFM DI effort that was formerly started within the Joint Staff Analytical Support (JSAS) family of programs; specifically the Assignment and Apportionment functions and development of the Automated GFM Tool (AGT) that streamlined the SECDEFs "Forces for Unified Commands" Memorandum Assignment Tables. RDT&E efforts for Assignment and Apportionment functions within the purview of Joint Staff J8 are scheduled to end in FY2015 with the declaration of AGT Full Operation Capability (FOC). In order to complete the GFM DI tasks, efforts must begin as early as possible to ensure all GFM DI planned milestones, reflected in Section E, are			

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P003 / *GFM DI Enterprise Force Structure (EFS) Integration*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
realized and thereby enable a Global Visibility Capability. GFM applications managed by the Joint Staff are used by the JSAS family of programs and this effort to fund critical upgrades is a precondition to GFM DI EFS Integration. ***FY 2017 Plans:*** Specific RDT&E work will focus on a decentralized data strategy resulting from the DoD CIO "DoD Cloud Way Forward" service-oriented architecture that flattens the legacy "Silos of Databases" paradigm by providing infrastructure services. This will satisfy the Joint Allocation IPlan guidance for mapping Enterprise Force Structure capabilities to Force-Management modeled workflows uniting both user and technical functionality. The result is incremental development of enabling technologies designed to operationalize force structure data resident in each Service Organizational Server (Service OS) and meet Interim Operational Capability (IOC). This will be accomplished by first aggregating the Service OS into a Global Laydown Service that aggregates the Service OS data, then by linking the unique organization identifier (OUID) in the aggregate service to establish the C2 relationships habitual to the Allocation process (OPCON and TACON Links). The minimum capability to establish the OUID/UIC linkages in JOPES TPFDDs, mapped to GFM allocation information (FTN, RFF and DEPORD/LNR), and Transportation data (TTAN/TTN) comprises the baseline IT functionality available to the DoD Enterprise.This is foundational for the success of GFM DI Next Steps implementation writ large and includes cyber security improvements required to meet the latest Information Assurance compliance standards.			
Accomplishments/Planned Programs Subtotals	-	-	1.900

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Joint migration or transition to a JIE compliant JC2 Architecture and ultimate Life-Cycle Logistics within an Acquisition Portfolio.

E. Performance Metrics

The GFM DI Enterprise Force Structure (EFS) integration efforts will result in a Global Laydown Service and Joint Force Capability Catalog that supports a Global Visibility Capability (GVC) allowing for GFM Allocation and Joint Future Force integration or transition/implementation of concepts and capabilities to the APEX Enterprise. This yields value-added non-materiel solutions, lessons learned, and best practices across the Doctrine, Organization,Training, Materiel, Leadership and Education, Personnel, Facilities - Policy (DOTMLPF-P). This is a cost-effective yet full spectrum approach to support and assist the Chairman in fulfilling his statutory responsibilities while improving current and future joint force capabilities, and are measured by the following:

(1) Meet Initial Operating Capability (IOC) performance elements.

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0204571J / *Joint Staff Analytical Support (JSAS)*	**Project (Number/Name)** P003 / *GFM DI Enterprise Force Structure (EFS) Integration*

(2) Enterprise Force Structure Data services and Web Service Interfaces supporting a Joint Force Capabilities Catalog (JFCC) described in the Enterprise Force Structure (EFS) Capability Package (CP) that is essential to operationalizing the force structure data and achieve GFM DI Next Steps Allocation.

(3) Services, CCMDs, Joint Staff and OSD will be able to efficiently manage force generation supporting GFM Allocation in less than the current time it takes with a common view of the sourcing-to-employment tracking of forces. This is realized by the automated linking of the Organization Unique Identifier (OUID) attributes from the GFM DI Org Servers (OS) to the Unit Identification Code (UIC) resident in JOPES TPFDDs, GFM allocation information (FTN, RFF, and DEPORD/LNR), and Transportation data.

(4) GFM applications that allow a Joint Planner to inculcate the association of standard and consistent force structure instance data and consistently applied data "types" with force structure data referenced over time in the GFM Allocation sourcing solutions and deployment planning,execution, and distribution processes.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0303166J *I Support to Information Operations Capability*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	12.323	11.552	10.404	0.857	-	0.857	0.673	0.673	0.673	0.781	Continuing	Continuing
001: *Information Operations Range*	12.323	11.552	10.404	0.857	-	0.857	0.673	0.673	0.673	0.781	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Information Operations Range (JIOR) provides DoD a closed-loop, persistent, geographically distributed network to conduct training, testing, and experimentation in support of Computer Network Attack (CNA)/Computer Network Defense (CND) in a threat representative environment with realistic and relevant targets and command & control systems of interest. JIOR uniquely provides Services, Combatant Commanders (CCMD), and other government agencies the ability to test deployment and collaboratively gain insights into advanced Cyberspace, Information Operations (IO), and Electronic Warfare (EW) capabilities under current and future operational environment conditions. JIOR integrates other cyberspace ranges, replicates critical infrastructure, cyber targets, Internet traffic, and opposing forces. These provide the capacity to meet Presidential policy and CJCS mandates for training and certification of 6000+ cyber warriors by 2017 and DoD/Interagency cyber vulnerability assessments. The JIOR security construct allows users to develop, test, and secure their unique cyber capabilities and protect their identity during range activities. The JIOR conducts multiple, simultaneous, and disparate training, testing, and experimentation events.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	11.552	10.413	0.857	-	0.857
Current President's Budget	11.552	10.404	0.857	-	0.857
Total Adjustments	0.000	-0.009	0.000	-	0.000
• Congressional General Reductions	-	-0.009			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

The majority of funding for the Joint IO range shifted to the Operation and Maintenance appropriation (same program element) for proper execution. A program requirements review determined most of the cost for the range was in the operation and maintenance of systems, support contracts, and overhead expenses, better suited for the O&M appropriation.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0303166J *I Support to Information Operations Capability*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Information Operations Range	11.552	10.404	0.857
Description: The Joint Information Operations Range (JIOR) is a closed-loop network that forms a live-fire range utilizing encrypted tunneling over existing networks to conduct training, testing, and experimentation in support of Information Operations (IO), Electronic Warfare (EW), Computer Network Attack (CNA)/Computer Network Defense (CND)), and Cyberspace mission areas in a threat representative environment. ***FY 2015 Accomplishments:*** (1) Expanded national, DoD, and Inter-Agency awareness and support regarding IO and cyber related activities. (2) Improved the threat representation and operational relevance of the network. (3) Improved the integration of Live Virtual Constructive (LVC) simulations with other Joint training and testing communities and infrastructures. ***FY 2016 Plans:*** Continues FY 2015 efforts: (1) Expand national, DoD, and Inter-Agency awareness and support regarding IO and cyber related activities. (2) Improve the threat representation and operational relevance of the network. (3) Improve the integration of LVC simulations with other Joint training and testing communities and infrastructures. ***FY 2017 Plans:*** The Joint Staff conducted a thorough program review and determined the majority of IO Range expenses were better suited to the O&M appropriation for proper execution. (1) Continues FY2016 efforts. (2) Evaluate and deploy network automation tools to better manage the JIOR.			
Accomplishments/Planned Programs Subtotals	11.552	10.404	0.857

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0303166J *I Support to Information Operations Capability*

E. Acquisition Strategy

The Joint IO Range manages the development and expansion of Joint IO Range capabilities to an increasing number of customers. Integration into the Joint Exercise program has allowed users to increase the use and capability of the range. Continued development of tools for the range will be required as adversarial capabilities improve. Automation of JIOR scheduling and network reconfiguration will be critical to increasing capacity and meeting user demands.

The Joint Staff conducted a thorough program review and determined the majority of IO Range expenses were better suited to the O&M appropriation for proper execution.

Continues FY2016 efforts:

(1) Expand national, DoD, and Inter-Agency awareness and support regarding IO and cyber related activities.
(2) Improve the threat representation and operational relevance of the network.
(3) Improve the integration of LVC simulations with other Joint training and testing communities and infrastructures.

Evaluate and deploy network automation tools to better manage the JIOR.

F. Performance Metrics

The Joint Staff conducted a thorough program review and determined the majority of IO Range expenses were better suited to the O&M appropriation for proper execution.

Measures: JIOR modernization results in reduced network reconfiguration time for use and reuse of DoD Enterprise Cyber Range Environment (DECRE) ranges.

- Number of Defense Research an Engineering Network (DREN) circuits remaining and rate of replacement with Defense Information Systems Network (DISN) circuits (Cost).

- Estimated man-hours saved due to transforming manual paper-driven planning processes to on-demand automated services (Schedule).

- Sufficient capacity & agility to support Cyber Mission Forces force development and MDAP/C2 systems cybersecurity assessments & testing (Outcomes).

- Improved rapid response for short-notice mission rehearsal requirements from days to on-demand (Outcomes).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	16.047	10.167	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	26.214
P818: *Joint Integration & Interoperability*	16.047	10.167	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	26.214
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY2016 this PE will be realigned to PE 0604826J - Joint C5 Capability Development, Integration and Interoperability Assessments.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	11.968	0.000	0.000	-	0.000
Current President's Budget	10.167	0.000	0.000	-	0.000
Total Adjustments	-1.801	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY2015 Carryover	-1.801	-	-	-	-

Change Summary Explanation

In FY 2016, PE 0607828J - Joint Integration and Interoperability is realigned to PE 0604826J.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Integration & Interoperability	10.167	-	-
FY 2015 Accomplishments: (1) Developed and secured DoD approval for eight (8) JCIDS documents to support materiel development of Joint C2 system capabilities for: DoD's Enterprise Common Operational Picture (COP); the Common Tactical Picture; the Mission Partner Environment (MPE); Force Planning and Deployment Planning & Execution; Joint Operations Planning Process and Assessment; and Joint C2 Cyber capabilities. Six software solutions were delivered to the Combatant Commands and Services as a result of these JCIDS documents.			

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
(2) Identified and resolved critical data exchange issues between GCCS-J and United Kingdom C2 systems, between GCCS-J and the Air Force's AOC weapon system, and between GCCS-J and USTRANSCOM movement planning data services. (3) Increased the number of JIE and Warfighting Mission Area architecture products available for integration and reuse by 25% and significantly improved user search capability for structured and unstructured data. (4) Delivered Tactics, Techniques and Procedures (TTPs) and integration for the En-route Mission Command Capability based on SOF best practices to the Army's 18th Airborne Corps and the USMC Special Purpose Marine Air Ground Task Forces providing for the first time enhanced C2 capability en-route to include secure voice, email, chat, ISR feeds and Common Operational Picture. (5) Led the Department's adoption of the White House directed National Information Exchange Model (NIEM) with the creation and implementation of the Military Operations Domain data exchange framework (now at version 3.1) resulting in improved Joint, Interagency and Coalition warfighter interoperability and information sharing. (6) Created a North Atlantic Treaty Organization (NATO) Core Data Framework, which received formal NATO approval and endorsement, establishing a common multi-nation warfighter information sharing approach and which establishes critical US-to-allied nation interoperability requirements. (7) Conducted Joint Staff sponsored Bold Quest Coalition Capability Demonstration and Assessment involving fourteen (14) partner nations, all US Services and U.S. Special Operations Command successfully demonstrating viability of implementing Mission Partner Environment concepts; the integration of ground-to-air situational awareness capabilities; and digitally enhanced call-for-fire and close air support operations through live, virtual, construction dismounted operations at Ft Benning GA, White Sands Missile Range, NM, Holloman AFB, NM, and Ft Bliss, TX. (8) Led Accreditation visits to seven (7) Joint Terminal Attack Controller (JTAC); 1 Forward Air Controller (Airborne); and 3 Joint Fires Observer (JFO) Schoolhouses. Accreditation of US and partner nation schoolhouses ensured trained and qualified personnel meet standardized performance metrics, enabling enhanced trust and interoperability during current and future combat operations (9) Provided CCMDs, Services and Agencies with Mission Partner Environment (MPE) network joining and exiting instructions for sharing information allowing a more rapid shift (hours vs days) from peacetime operations to JTF combat operations; delivered requirements and standards for Unclassified Information Sharing to the Joint Staff requirement process for whole of government			

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
and coalition partner operations e.g. Domestic Operations, United Nations Humanitarian Assistance/Disaster Relief via JROC validated documents. (10) Incorporated MPE concepts and principles into Senior Leader Capstone and Joint Professional Military Education (JPME) programs, Joint Doctrine Publications, Joint Knowledge Online (JKO) and four (4) CCMD and Service exercises. (11) Solved “Chat” and “Common Operational Picture” (COP) Afghan Mission Network interoperability emergent requirement in support of NATO’s Operation Resolute Support. (12) Provided a realistic Ballistic Missile Defense test bed employing Service Red Team activities by integrating the Command and Control Information Systems (C2 IS) with the Missile Defense Agency’s Command, Control, Battle Management and Communication (C2BMC) systems and Aegis Weapons System provided by Surface Combat Systems Center Wallops Island. (13) Developed a Concept of Operations for integrating cyber effects into exercise Master Scenario Event Lists (MSEL) and implemented cyber effects MSELs during USNORTHCOM’s Vigilant Shield 2014 exercise.			
Accomplishments/Planned Programs Subtotals	10.167	-	-

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

N/A - FY 2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

F. Performance Metrics

N/A - FY 2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*	**Project (Number/Name)** P818 / *Joint Integration & Interoperability*

Remarks

FY 2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*	**Project (Number/Name)** P818 / *Joint Integration & Interoperability*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Consolidation																												
PE Consolidation.					■																							

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607828J / *Joint Integration & Interoperability*	**Project (Number/Name)** P818 / *Joint Integration & Interoperability*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Consolidation				
PE Consolidation.	1	2016	1	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff											Date: February 2016	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0208043J *I Planning and Decision Aid System (PDAS)*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	11.131	1.788	1.842	3.038	-	3.038	3.037	3.037	3.037	3.097	Continuing	Continuing
P001: *Planning and Decision Aid System OPS*	11.131	1.788	1.842	3.038	-	3.038	3.037	3.037	3.037	3.097	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides engineering and testing support to the Planning and Decision Aid System, a classified Joint Staff automated information system supporting the combatant commanders, Services, and Department of Defense Agencies.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	1.842	3.061	3.061	-	3.061
Current President's Budget	1.788	1.842	3.038	-	3.038
Total Adjustments	-0.054	-1.219	-0.023	-	-0.023
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.219			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY2015 Carryover	-0.054	-	-	-	-
• Revised Economic Adjustment	-	-	-0.023	-	-0.023

Change Summary Explanation

Classified details provided in a separate budget exhibit submitted on SIPRNET.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 The Joint Staff	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0902298J *I Management Headquarters*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	12.611	3.111	2.953	0.826	-	0.826	0.861	0.860	0.860	0.861	Continuing	Continuing
P001: *Joint Staff Information Network (JSIN)*	12.611	3.111	2.953	0.826	-	0.826	0.861	0.860	0.860	0.861	Continuing	Continuing

A. Mission Description and Budget Item Justification

Provides RDT&E funds for the Joint Staff Information Network (JSIN). JSIN is the network infrastructure (for both classified and unclassified information) enabling collaboration and information-sharing among the Joint Staff, Combatant Commands (CCMD) and the Services. The JSIN also provides crucial business-related, decision-making information, and workflow support affecting military operations in support of the JCS. JSIN improves actions processing for faster coordination of critical issues with Combatant Commands, Services, and Agencies, as well as within TJS.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	4.409	2.978	1.010	-	1.010
Current President's Budget	3.111	2.953	0.826	-	0.826
Total Adjustments	-1.298	-0.025	-0.184	-	-0.184
• Congressional General Reductions	-	-0.025			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FY2015 Carryover	-1.298	-	-	-	-
• Economic Adjustment	-	-	-0.184	-	-0.184

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0902298J / *Management Headquarters*	Project (Number/Name) P001 / *Joint Staff Information Network (JSIN)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P001: *Joint Staff Information Network (JSIN)*	12.611	3.111	2.953	0.826	-	0.826	0.861	0.860	0.860	0.861	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides RDT&E funds for the Joint Staff Information Network (JSIN). JSIN is the network infrastructure (for both classified and unclassified information) enabling collaboration and information-sharing among the Joint Staff, Combatant Commands (CCMD) and the Services. The JSIN also provides crucial business-related, decision-making information, and workflow support affecting military operations in support of the JCS. JSIN improves actions processing for faster coordination of critical issues with Combatant Commands, Services, and Agencies, as well as within TJS.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Staff Information Network (JSIN)	3.111	2.953	0.826

Description: Provides RDT&E funds for the Joint Staff Information Network (JSIN). JSIN is the network infrastructure (for both classified and unclassified information) enabling collaboration and information-sharing among the Joint Staff, Combatant Commands (CCMD) and the Services. The JSIN also provides crucial business-related, decision-making information, and workflow support affecting military operations in support of the JCS. JSIN improves actions processing for faster coordination of critical issues with Combatant Commands, Services, and Agencies, as well as within TJS.

FY 2015 Accomplishments:

Provided requirements refinement, limited roll out of a production system, planning of legacy data migration and assessment of Joint Staff's electronic Document Task and Records Management (eDTRM) project. eDTRM provides Joint Staff a system that is able to leverage the cloud computing capabilities within the Defense Enterprise Computing Centers (DECC)/Joint Information Environment (JIE) and able to integrate with and leverage information contained within other Task and Records Management Systems currently in use within the Joint Community. Workflows developed included Chairman's Public Correspondence, Military Awards, Freedom of Information Act, Mandatory Declassification Review, Security Review, Staff Actions and Records Management.

FY 2016 Plans:

Joint Staff migration to JIE continues with placement of applications into JIE Core Data Centers and participation within Installation Processing Nodes. Mobile user access to JSIN services includes unclassified and classified mobile device use of JSIN-U and JSIN-S portals. Subscription to the Defense Information Systems Agency (DISA) provided Unified Capabilities portfolio will allow a full complement of voice, video, chat, web conferencing, email, and mobility functionality. Continued refinement of the U.S. Army Information Technology Agency desktop as a service, Application Virtualization (S) and (U), Cross Domain Services,

Exhibit R-2A, RDT&E Project Justification: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0902298J / *Management Headquarters*	**Project (Number/Name)** P001 / *Joint Staff Information Network (JSIN)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Enterprise Content Management and Task Management (U) optimization and integration, Enterprise Services Implementation including Enterprise Task Management (U/S), Identity and Access Management capabilities, completion of a Managed Print Service (MPS) and consideration of DoD cloud services will achieve efficiencies, improve mission effectiveness, and strengthen our security posture. ***FY 2017 Plans:*** Work with the Joint Service Provider (JSP) to develop and refine methodologies to improve Active Directory hardening, network consolidation strategies, and improve data protection. Continue to develop and integrate more mobile capacities in the JS users as more and more systems are handheld and data hosted in the DOD cloud.			
Accomplishments/Planned Programs Subtotals	3.111	2.953	0.826

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

(1) Reduce technical support hours per desktop a minimum of 10% through deployment of thin client and virtualized management of the IT baseline.

(2) Avoid cost for technology refresh of NIPR and SIPR desktops via the proper planning, testing, and piloting of a Joint Staff Thin Client solution.

(3) Reduce the cost of building, operating, and maintaining Joint Staff specific solutions through implementation of enterprise capabilities, and adoption of new cost models for execution (Enterprise Task management, Unified Communications, JIE, and Managed Print Services (MPS).

(4) Reduce redundancies in Core and Mission IT Capabilities through implementation of a comprehensive portfolio management policy and avoid cost through the institutionalization of investment management governance model.

(5) Reduce cost of Joint Staff controlled IT-services by subscribing to locally hosted IT services providers (Joint IT Service Provider-Pentagon (JITSP-P).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 The Joint Staff			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0902298J / *Management Headquarters*	Project (Number/Name) P001 / *Joint Staff Information Network (JSIN)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Support	MIPR	SPAWAR : Washington, DC	1.359	-		-		-		-		-	-	-	-
		Subtotal	1.359	-		-		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Support	MIPR	SPAWAR : Washington, DC	11.252	3.111		2.953		0.826	Sep 2015	-		0.826	-	-	-
		Subtotal	11.252	3.111		2.953		0.826		-		0.826	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.611	3.111		2.953		0.826		-		0.826	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0902298J / *Management Headquarters*	**Project (Number/Name)** P001 / *Joint Staff Information Network (JSIN)*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Joint Staff Information Network (JSIN)																												
Joint Staff Information Network (JSIN)																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 The Joint Staff		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0902298J / *Management Headquarters*	**Project (Number/Name)** P001 / *Joint Staff Information Network (JSIN)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Staff Information Network (JSIN)				
Joint Staff Information Network (JSIN)	1	2017	4	2017

Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

February 2016

United States Special Operations Command

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	495,001	554,145		554,145	497,174		497,174
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Applied Research	35,559	37,517		37,517	37,820		37,820
Advanced Technology Development	49,878	59,741		59,741	61,620		61,620
Operational System Development	409,564	456,887		456,887	397,734		397,734
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174
Summary Recap of FYDP Programs							
Intelligence and Communications	21,080	70,362		70,362	5,415		5,415
Special Operations Forces	473,921	483,783		483,783	491,759		491,759
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Applied Research	35,559	37,517		37,517	37,820		37,820
Advanced Technology Development	49,878	59,741		59,741	61,620		61,620
Operational System Development	409,564	456,887		456,887	397,734		397,734
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174
Summary Recap of FYDP Programs							
Intelligence and Communications	21,080	70,362		70,362	5,415		5,415
Special Operations Forces	473,921	483,783		483,783	491,759		491,759
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
U.S., Special Operations Command	495,001	554,145		554,145	497,174		497,174
Total Research, Development, Test & Evaluation	495,001	554,145		554,145	497,174		497,174

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
22	1160401BB	SOF Technology Development	02	35,559	37,517		37,517	37,820		37,820	U
		Applied Research		35,559	37,517		37,517	37,820		37,820	
67	1160402BB	SOF Advanced Technology Development	03	49,878	59,741		59,741	61,620		61,620	U
		Advanced Technology Development		49,878	59,741		59,741	61,620		61,620	
211	0304210BB	Special Applications for Contingencies	07	14,818	65,060		65,060				U
223	0305208BB	Distributed Common Ground/Surface Systems	07	6,262	5,302		5,302	5,415		5,415	U
241	1105219BB	MQ-9 UAV	07	14,418	22,151		22,151	17,804		17,804	U
242	1105232BB	RQ-11 UAV	07	259	758		758				U
243	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	14,438							U
244	1160403BB	Aviation Systems	07	149,337	179,134		179,134	159,143		159,143	U
245	1160405BB	Intelligence Systems Development	07	9,490	6,866		6,866	7,958		7,958	U
246	1160408BB	Operational Enhancements	07	78,627	63,008		63,008	64,895		64,895	U
247	1160431BB	Warrior Systems	07	19,906	33,842		33,842	44,885		44,885	U
248	1160432BB	Special Programs	07	19,887	3,401		3,401	1,949		1,949	U
249	1160434BB	Unmanned ISR	07					22,117		22,117	U
250	1160480BB	SOF Tactical Vehicles	07	3,553	3,212		3,212	3,316		3,316	U
251	1160483BB	Maritime Systems	07	58,656	59,597		59,597	54,577		54,577	U
252	1160489BB	Global Video Surveillance Activities	07	3,788	3,933		3,933	3,841		3,841	U

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
253	1160490BB	Operational Enhancements Intelligence	07	16,125	10,623		10,623	11,834		11,834	U
		Operational System Development		409,564	456,887		456,887	397,734		397,734	
Total Research, Development, Test & Eval, DW				495,001	554,145		554,145	497,174		497,174	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

U.S., Special Operations Command
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
22	1160401BB	SOF Technology Development	02	35,559	37,517		37,517	37,820		37,820	U
Applied Research				35,559	37,517		37,517	37,820		37,820	
67	1160402BB	SOF Advanced Technology Development	03	49,878	59,741		59,741	61,620		61,620	U
Advanced Technology Development				49,878	59,741		59,741	61,620		61,620	
211	0304210BB	Special Applications for Contingencies	07	14,818	65,060		65,060				U
223	0305208BB	Distributed Common Ground/Surface Systems	07	6,262	5,302		5,302	5,415		5,415	U
241	1105219BB	MQ-9 UAV	07	14,418	22,151		22,151	17,804		17,804	U
242	1105232BB	RQ-11 UAV	07	259	758		758				U
243	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	14,438							U
244	1160403BB	Aviation Systems	07	149,337	179,134		179,134	159,143		159,143	U
245	1160405BB	Intelligence Systems Development	07	9,490	6,866		6,866	7,958		7,958	U
246	1160408BB	Operational Enhancements	07	78,627	63,008		63,008	64,895		64,895	U
247	1160431BB	Warrior Systems	07	19,906	33,842		33,842	44,885		44,885	U
248	1160432BB	Special Programs	07	19,887	3,401		3,401	1,949		1,949	U
249	1160434BB	Unmanned ISR	07					22,117		22,117	U
250	1160480BB	SOF Tactical Vehicles	07	3,553	3,212		3,212	3,316		3,316	U
251	1160483BB	Maritime Systems	07	58,656	59,597		59,597	54,577		54,577	U
252	1160489BB	Global Video Surveillance Activities	07	3,788	3,933		3,933	3,841		3,841	U
253	1160490BB	Operational Enhancements Intelligence	07	16,125	10,623		10,623	11,834		11,834	U

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

U.S., Special Operations Command
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

22 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
		Operational System Development		409,564	456,887		456,887	397,734		397,734	
		Total U.S., Special Operations Command		495,001	554,145		554,145	497,174		497,174	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 22, 2016 at 09:16:43

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

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
22	02	1160401BB	SOF Technology Development	Volume 5 - 855

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
67	03	1160402BB	SOF Advanced Technology Development	Volume 5 - 861

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
211	07	0304210BB	Special Applications for Contingencies	Volume 5 - 875
223	07	0305208BB	Distributed Common Ground/Surface Systems	Volume 5 - 883
241	07	1105219BB	MQ-9 Unmanned Aerial Vehicle (UAV)	Volume 5 - 893

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
242	07	1105232BB	RQ-11 UAV	Volume 5 - 901
243	07	1160279BB	Small Business Innovative Research	Volume 5 - 909
244	07	1160403BB	Aviation Systems	Volume 5 - 921
245	07	1160405BB	Intelligence Systems Development	Volume 5 - 975
246	07	1160408BB	Operational Enhancements	Volume 5 - 993
247	07	1160431BB	Warrior Systems	Volume 5 - 995
248	07	1160432BB	Special Programs	Volume 5 - 1057
249	07	1160434BB	Unmanned ISR	Volume 5 - 1063
250	07	1160480BB	SOF Tactical Vehicles	Volume 5 - 1075
251	07	1160483BB	Maritime Systems	Volume 5 - 1083
252	07	1160489BB	Global Video Surveillance Activities	Volume 5 - 1111
253	07	1160490BB	Operational Enhancements Intelligence	Volume 5 - 1113

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

Program Element Title	Program Element Number	Line #	BA	Page
Aviation Systems	1160403BB	244	07	Volume 5 - 921
Distributed Common Ground/Surface Systems	0305208BB	223	07	Volume 5 - 883
Global Video Surveillance Activities	1160489BB	252	07	Volume 5 - 1111
Intelligence Systems Development	1160405BB	245	07	Volume 5 - 975
MQ-9 Unmanned Aerial Vehicle (UAV)	1105219BB	241	07	Volume 5 - 893
Maritime Systems	1160483BB	251	07	Volume 5 - 1083
Operational Enhancements	1160408BB	246	07	Volume 5 - 993
Operational Enhancements Intelligence	1160490BB	253	07	Volume 5 - 1113
RQ-11 UAV	1105232BB	242	07	Volume 5 - 901
SOF Advanced Technology Development	1160402BB	67	03	Volume 5 - 861
SOF Tactical Vehicles	1160480BB	250	07	Volume 5 - 1075
SOF Technology Development	1160401BB	22	02	Volume 5 - 855
Small Business Innovative Research	1160279BB	243	07	Volume 5 - 909
Special Applications for Contingencies	0304210BB	211	07	Volume 5 - 875
Special Programs	1160432BB	248	07	Volume 5 - 1057
Unmanned ISR	1160434BB	249	07	Volume 5 - 1063
Warrior Systems	1160431BB	247	07	Volume 5 - 995

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1 SOW	1st Special Operations Wing
160th SOAR	160th Special Operations Aviation Regiment
AAC	Air Armament Center
AFRICOM	Africa Command
AFSOC	Air Force Special Operations Command
ARDEC	U.S. Army Armament Research, Development and Engineering Center
ARSOA	Army Special Operations Aviation
ATEC	Army Test and Evaluation Command
CACI	California Analysis Center, Incorporated
CENTCOM	Central Command
DARPA	Defense Advanced Research Projects Agency
DOD	Department of Defense
DTRA	Defense Threat Reduction Agency
EACS	Exploitation Analysis Centers
FDA	Food and Drug Administration
JITC	Joint Interoperability Test Center
JSOTF	Joint Special Operations Task Force
JTF	Joint Task Force
MARSOC	Marine Special Operations Command
NATC	Nevada Automotive Test Center
NAVAIRSYSCOM PMA-275	Naval Air Systems Command V-22 Joint Program Office
NAVSEA	Naval Systems Engineering Command
NGA	National Geospatial--Intelligence Agency
NPS	Naval Postgraduate School
NSA	National Security Agency
NSWC	Naval Special Warfare Command
OUSD(I)	Office of the Secretary of Defense, Intelligence
SOAR(A)	Special Operations Aviation Regiment (Airborne)
SOFSA	Special Operations Forces Support Activity
SPAWAR	Space and Naval Warfare Systems
TAPO	Technology Applications Program Office
TARDEC	Tank Automotive Research, Development and Engineering Center
USMC	United States Marine Corps
USSOCOM	United States Special Operations Command

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Acronym	Full Naming Convention
ADS-B	Automatic Dependent Surveillance-Broadcast
AECV	All Environment Capable Variant
AFSOC	Air Force Special Operations Command
ALGL	Advanced Lightweight Grenade Launcher
AM	Amplitude Modulation
AMN	Airborne Mission Network
APAS	Active Parallel Actuator System
ASE	Aircraft Survivability Equipment
ASIF	All Source Information Fusion
ASOM	Aerial Search Optimization Model
ATD	Advanced Technology Demonstration
ATPIALS	Advanced Tactical Precision Illuminator Aiming Laser System
ATW	Advanced Threat Warning
AvFID	Aviation Foreign Internal Defense
AVS	Air Variant System
BFT	Blue Force Tracking
BLOS	Beyond Line of Site
BNVD	Binocular Night Vision Device
BOI	Basis of Issue
C/CPAF	Cost/Cost Plus Award Fee
C/F&DR	Conditional Fielding and Deployment Release
C/FFP	Cost Plus Firm-Fixed Price
C/PIF	Cost Plus Incentive Fee
C2	Command and Control
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computer
C4I	Command, Control, Communications, Computers, and Intelligence
CA	Civil Affairs
CAAS	Common Avionics Architecture Systems
CAR	Combat Assault Rifle
CAS	Close Air Support

CASEVAC	Casualty Evacuation
CCFLIR	Combatant Craft Forward Looking Infrared Radar
CCH	Combatant Craft - Heavy
CCM	Combatant Craft - Medium
CCME	Combatant Craft Mission Equipment
CDAS	Cognitive Decision Aiding System
CDD	Capability Development Document
CDU	Control Display Units
CERP	Capital Equipment Replacement Program
CESE	Civil Engineering Support Equipment
CFE	Contractor Furnished Equipment
CI	Civil Information
CIED	Counter-Improvised Explosive Device
CIM	Civil Information Management
CIMDPS	Civil Information Management Data Processing System
CMNS	Combat Mission Needs Statement
CMS	Combat Mission Simulators
CNVD	Clip-On Night Vision Device
COP	Common Operational Picture
COTI	Clip-On Thermal Imagers
COTS	Commercial-Off-The-Shelf
CP	Counter-Proliferation
CPD	Capabilities Production Document
CQC	Close Quarter Combat
CSP	Common Sensor Payload
CT	Counter-Terrorism
DAP	Defensive Armed Penetrator
DCGS-SOF	Data Common Ground/Surface System--Special Operations Forces
DCM	Defensive Countermeasures
DCS	Dry Combat Submersible
DCU	Data Concentrator Unit
DDP	Detachment Deployment Packages

DDS	Dry Deck Shelter
DRWG	Data Common Ground/Surface System Working Group
DT&E	Development Test and Evaluation
DVE	Degraded Visual Environment
DVEPS	Degraded Visual Environment Piloted System
EA	Evolutionary Acquisition
ECM	Electronic Countermeasures
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EGLM	Enhanced Grenade Launcher Module
EMD	Engineering and Manufacturing Development
EO/IR	Electro-Optical Infrared
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EW	Electronic Warfare
F&DR	Fielding and Deployment Release
FABS	Fly-Away Broadcast System
FCD	Field Computing Devices
FFT	Friendly Force Trackers
FLIR	Forward Looking Infrared Radar
FM	Frequency Modulation
FMBS	Family of Muzzle Brake Suppressors
FMV	Full Motion Video
FMV VDH-L	Full Motion Video Distribution Hub-Light
FOC	Full Operational Capability
FoS	Family of Systems
FRP	Full Rate Production
FSOV	Family of Special Operations Vehicles
FSWS	Family of Sniper Weapon System
FVL	Future Vertical Lift
FW	Fixed Wing

FY	Fiscal Year
GATM	Global Air Traffic Management
GCC	Geographical Combatant Commander
GEOINT	Geological Intelligence
GFE	Government Furnished Equipment
GIG	Global Information Grid
GMV	Ground Mobility Vehicle
GOTS	Government-Off-The-Shelf
GPPU	General Purpose Processing Units
GPS	Global Positioning System
GPU	Graphics Processing Unit
GSK	Ground Signals Intelligence Kit
HF	High Frequency
HFIS	Hostile Fire Indicator System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held Imager
HLM	Handheld Laser Marker
HSAC	High Speed Assault Craft
IC	Intelligence Community
IDIQ	Indefinite Delivery/Indefinite Quantity
IDS	Intrusion Detection System
IED	Improvised Explosive Devices
ILS	Integrated Logistics Support
IM	Insensitive Munitions
INOD	Improved Night/Day Observation/Fire Control Device
IOC	Initial Operational Capability
IR	Infrared
IRCM	Infrared Countermeasures
ISP	Integrated Survey Plan
ISR	Intelligence Surveillance and Reconnaissance
ISR&T	Intelligence, Surveillance, Reconnaissance, and Targeting
IT	Information Technology

JBS	Joint Base Station
JCID	Joint Capabilities Integration and Development
JCTD	Joint Concept Technology Demonstration
JOS	Joint Operational Stocks
JTCITS	Joint Tactical C4I Information Transceiver System
JTWS	Joint Threat Warning System
JUON	Joint Urgent Operational Need
LAM	Laser Acquisition Marker
LCM	Low Cost Modification
LCS	Load Carriage System
LFT&E	Live Fire Test and Evaluation
LIDAR	Light Detection and Ranging
LOS	Line of Sight
LPI/LPD	Low Probability of Intercept/Low Probably of Detection
LRBS	Long Range Broadcast System
LRIP	Low Rate Initial Production
LRU	Line Replaceable Unit
LSDB	Laser--Small Diameter Bomb
LTATV	Lightweight Tactical All Terrain Vehicle
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MALET	Medium Altitude Long Endurance Tactical
MCE	Military Construction Collateral Equipment
MDAP	Major Defense Acquisition Program
MEDVAC	Medical Evacuation
MELB	Mission Enhancement Little Bird
MFD	Multi-Function Display
MFP-11	Major Force Program-11
MG	Machine Gun
MGS	Modular Glove System
MICH	Modular Integrated Communications Helmet
MIP	Military Intelligence Program
MIPR	Military Interdepartmental Purchase Request

MISO	Military Information Support Operations
MISOB	Military Information Support Operations Broadcast
MLE	Military Liaison Element
MOC	Media Operations Center
MPC	Media Production Center
MPK	Mission Planning Kits
MPU	Mission Processor Unit
MRAP	Mine Resistant Ambush Protected
MS	Milestone
MSSEP	Mobile SOF Strategic Entry Points
MTPS	Mission Training and Preparation System
MTS-B	Multi-Spectral Targeting System--B
MTUAS	Medium Tactical Unmanned Aerial System
MWS	Missile Warning System
NDAA	National Defense Authorization Act
NDI	Non-Developmental Item
NGFLIR	Next Generation Forward Looking Infrared Radar
NRE	Non-Recurring Engineering
NSAV	Non-Standard Aviation
NSCV	Non-Standard Commercial Vehicle
NSM	Non-Standard Materiel
NSSS	National Systems Support to SOF
NTM	National Technical Means
NVD	Night Vision Devices
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
PCU	Protective Combat Uniform
PDS	Product Distribution System

PE	Program Element
PED	Processing, Exploitation, and Dissemination
PGL	Precision Geo Location
PGM	Precision Guided Munitions
PME	Primary Mission Equipment
PMP	Prime Mission Product
PMT	Program Management
PN	Partner Nation
PRT	Predator Receiver Terminal
PSP	Precision Strike Package
PSR	Precision Sniper Rifle
QL-CBA	Quick-Look Capabilities-Based Assessment
RAMS	Removeable Airborne Military Information Support Operations System
RAV	Restricted Availability
RC-IED	Radio Counter-Improvised Explosive Device
RDT&E	Research, Development, Test, and Evaluation
RF	Radio Frequency
RFCM	Radio Frequency Countermeasures
RIS	Radio Integration System
RIS	Rail Interface Systems
ROH	Routine Overhaul
ROIC	Read Out Integrated Circuit
ROSES	Reduced Optical Signature Emissions Solution
RPG	Rocket Propelled Grenade
RRT	Rapid Reliable Targeting
RSTA	Reconnaissance, Surveillance, and Targeting Acquisition
RW	Rotary Wing
RWR	Radar Warning Receiver
S&T	Science & Technology
SAAF	Stuggart Army Air Field
SAFC	Special Applications for Contingencies
SAFEAIR	Safe Aircraft Recovery

SAM	Surface-to-Air Missiles
SAPNET	Special Access Program Network
SATCOM	Satellite Communications
SBIR	Small Business Innovative Research
SBUD	Simulator Block Updates
SCE	Special Communications Enterprise
SCO	SOF Cryptoligic Operator
SDB	Small Diameter Bomb
SDN	SOF Deployable Node
SDN-EP	SOF Deployable Node--Extension Packages
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SFA	Security Forces Assistance
SFAC	Security Forces Assistance Craft
SGM	Small Glide Munition
SIE	SOF Information Environment
SIGINT	Signals Intelligence
SIRFC	Suite of Integrated Radar Frequency Countermeasures
SKR	Silent Knight Radar
SO	Special Operations
SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOFPREP	Special Operations Forces Planning, Rehearsal, and Execution Preparation
SOMPE	Special Operations Mission Planning Environment
SOPGM	Standoff Precision Guided Munitions
SoS	System of Systems
SOTVS	Special Operations Tactical Video System
SOW	Special Operations Wing
SPCOM	Special Communications Field Segment - Enterprise
SPEAR	SOF Personal Equipment Advanced Requirements
SR	Special Reconnaissance

SRTV	Secure Real-Time Video
SSE	Sensitive Site Exploitation
SSR	Sniper Support Rifle
STC	SOF Tactical Communications
STLD	Small Target Location Devices
STOL	Short Take-Off and Landing
STTR	Small Business Technology Transfer
STUAS	Small Tactical Unmanned Aerial Systems
SUAS	Small Unmanned Aircraft System
SW	Shortwave
SWCS	Shallow Water Combat Submersible
SWIR	Short Wave Infared
TACLAN	Tactical Local Area Network
TAS	Threat Awareness System
TCCC	Tactical Combat Casualty Care
TF/TA	Terrain Following/Terrain Avoidance
TMF	Theater Mission Force
TT	Team Transportable
TTL	Tagging, Tracking and Locating
TV	Television
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UBA	Underwater Breathing Apparatus
UHF	Ultra High Frequency
UI	User Interface
VAS-BM	Visual Augmentation-Binocular-Monocular
VASWA	Visual Augmentation System-Weapons Accessories
VBL	Visible Bright Light
VHF	Very High Frequency
VTC	Video Teleconferencing
WPNAC	Weapons Accessories
WST	Weapons System Trainer

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	401.679	35.559	37.517	37.820	-	37.820	34.493	37.036	44.662	57.618	Continuing	Continuing
S100: *SOF Technology Development*	401.679	35.559	37.517	37.820	-	37.820	34.493	37.036	44.662	57.618	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element enables USSOCOM to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects that may not otherwise be affordable within MFP-11. Applying small incremental amounts of investments to 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 emerging technologies for Special Operations Forces. 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	36.750	37.517	38.104	-	38.104
Current President's Budget	35.559	37.517	37.820	-	37.820
Total Adjustments	-1.191	0.000	-0.284	-	-0.284
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.191	-			
• Other Adjustments	-	-	-0.284	-	-0.284

Change Summary Explanation

Funding:

FY 2015: Decrease of -$1.191 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.

FY 2016: None.

FY 2017: Decrease of -$0.284 million is due to a Departmental economic assumption decrease.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / *SOF Technology Development*	Project (Number/Name) S100 / *SOF Technology Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S100: *SOF Technology Development*	401.679	35.559	37.517	37.820	-	37.820	34.493	37.036	44.662	57.618	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 that may not otherwise be affordable within MFP-11. Small incremental co-investments with 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 USSOCOM capability deficiencies, capability objectives; technology thrust areas, and technology objectives. 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. Sub-projects within the SOF Technology Demonstration effort include:

• SOF Technology Development Sub-Project: This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11.

• Tagging, Tracking, and Locating (TTL) Sub-Project: TTL funds Applied Research projects identified in the USSOCOM Quick Look Capabilities Based Assessments (QL-CBA). TTL applies leading edge nanotechnology, biometric and biotechnology, and chemistry which is directed towards the development of revolutionary tags, taggants, sensors, communications, and data processing.

• Classified Sub-Project (provided under separate cover).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SOF Technology Development	17.988	18.780	18.858
FY 2015 Accomplishments: Continued ongoing technology development sub-projects in areas such as, but not limited to: reduced signature technologies; advanced lightweight armor and materials; advanced long duration small form factor power supplies; and alternative fuel power systems. Advanced technologies for combat medical equipment and tactics; sensor and processing improvements; improved interfaces and displays; and secure communications. Continued pursuit of methods to reduce operator load and provide advanced protection. Developed technologies for improved and widened window of target engagement (escalation of force), pursued enhancements to technologies that can aid in detection of enemy intentions and movement, and continued development and exploration across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transferred successful projects into programs of record. Continued the integration of critical technologies focused on providing the dismounted special			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*	**Project (Number/Name)** S100 / *SOF Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
operator leap-ahead capabilities via innovative collaborative processes. Focus was on delivering prototype system for soldier protection and augmentation and continued development of situational awareness and command/control systems. ***FY 2016 Plans:*** Continue ongoing technology development sub-projects in areas such as, but not limited to: long duration small form factor power supplies, alternative fuel power systems, reduce signature technologies, advance lightweight armor and materials, and begin studying high data-rate throughput. Continue advance technologies for combat medical equipment and tactics, sensor and processing improvements, improve interfaces and displays, and secure communications. Continue pursuit of methods to reduce operator load and provide advanced protection. Develop technologies for improved and widened window of target engagement (escalation of force), pursue enhancements to technologies that can aid in detection of enemy intentions and movement, and continue development and exploration across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transfer 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. Focus is on delivering prototype system for soldier protection and augmentation and continue development of situational awareness and command/control systems. ***FY 2017 Plans:*** Continues ongoing technology development sub-projects in areas such as, but not limited to: long duration small form factor power supplies, alternative fuel power systems, reduces signature technologies, high data-rate throughput, and advances lightweight armor and materials. Advances technologies for combat medical equipment and tactics, sensor and processing improvements, improves interfaces and displays, and secure communications. Continues pursuit of methods to reduce operator load and provides advanced protection. Develops technologies for improved and widened window of target engagement (escalation of force), pursues enhancements to technologies that can aid in detection of enemy intentions and movement, and continues development and exploration across the electromagnetic spectrum. 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. Focus is on delivering prototype system for soldier protection and augmentation and continues development of situational awareness and command/control systems.			
Title: Tagging, Tracking, and Locating Technologies (TTL) ***FY 2015 Accomplishments:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continued projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiated projects linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2016 Plans:***	14.414	14.950	15.137

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*	**Project (Number/Name)** S100 / *SOF Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continue projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiate projects linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2017 Plans:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continues projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiates projects linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA.			
Title: Classified Sub-Project ***FY 2015 Accomplishments:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover. ***FY 2017 Plans:*** Details provided under separate cover.	3.157	3.787	3.825
Accomplishments/Planned Programs Subtotals	35.559	37.517	37.820

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	1,089.770	49.878	59.741	61.620	-	61.620	73.505	80.032	89.334	101.823	Continuing	Continuing
S200: *Advanced Technology Development*	1,084.010	38.255	47.137	48.097	-	48.097	53.362	57.062	65.983	78.085	Continuing	Continuing
SF101: *Engineering Analysis*	0.847	6.660	7.457	8.312	-	8.312	14.827	17.558	17.831	18.108	Continuing	Continuing
S225: *Information and Broadcast Systems Adv Tech*	4.913	4.963	5.147	5.211	-	5.211	5.316	5.412	5.520	5.630	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 emerging/advanced technologies in as realistic an operational environment as possible by Special Operations Forces (SOF) users. 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 are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

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.

Information and Broadcast Systems Advanced Technology (project S225) conducts rapid prototyping, advanced technology demonstrations, and advanced concept technology demonstrations of information and broadcast systems technology. Includes planning, analyzing, evaluating, and production information systems capabilities and distribution/dissemination broadcast systems capabilities. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This project also integrates efforts with each other and conducts technology demonstrations in conjunction with joint experiments and other assessment events. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The project also addresses unique, joint special mission or area-specific needs for which prototypes must be developed on a rapid response basis, or are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	51.622	57.741	61.333	-	61.333
Current President's Budget	49.878	59.741	61.620	-	61.620
Total Adjustments	-1.744	2.000	0.287	-	0.287
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	2.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.070	-			
• SBIR/STTR Transfer	-1.674	-			
• Other adjustments	-	-	0.287	-	0.287

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: S200: *Advanced Technology Development*		
Congressional Add: *S200: Advanced Technology Development*	-	2.000
Congressional Add Subtotals for Project: S200	-	2.000
Congressional Add Totals for all Projects	-	2.000

Change Summary Explanation

Funding:

FY 2015: Decrease of -$1.744 million is due to a decrease for transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs (-$1.674 million), and a decrease for higher command priorities (-$0.070 million).

FY 2016: Increase of $2.000 million is due to a congressional add to project S200 Advanced Technology Development.

FY 2017: Net increase of $0.287 million is due to an increase for engineering analysis to address aviation mission survivability such as signature management (acoustic, infrared, radio frequency), situational awareness with full spectrum threat warning, capabilities to operate in Global Positioning System degraded environment, and counter measures versatile mission equipment (payloads, communications, weapons) that perform multiple functions capable of range of effects ($0.750 million), and a decrease for Departmental economic assumption (-$0.463 million).

Schedule: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 1160402BB *I SOF Advanced Technology Development*

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) S200 / *Advanced Technology Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S200: *Advanced Technology Development*	1,084.010	38.255	47.137	48.097	-	48.097	53.362	57.062	65.983	78.085	Continuing	Continuing

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 emerging technologies and 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. The element also addresses unique, joint special mission or area-specific needs for which a few rapid prototypes must be developed on a responsive basis, or are of sufficient time sensitivity to accelerate prototyping efforts of a normal acquisition program in any phase. Sub-projects within the SOF Special Technology Development efforts include:

• Special Operations Special Technology Sub-Project. This sub-project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. This project received a congressional add in FY 2016.

• Tagging, Tracking, and Locating (TTL) Technologies Sub-Project. TTL funds SOF unique ATDs identified in the USSOCOM Quick Look Capabilities Based Assessments (QL-CBA). TTL rapidly prototypes and expeditiously transitions projects from laboratory to acquisition Programs of Record/operational use to address SOF capability deficiencies.

• National to Theater Transition Sub-Project. Conduct additional testing required to transition items from national forces to theater forces.

• Classified Sub-Project (provided under separate cover).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SOF Special Technology Sub-Project	18.241	23.570	26.212
FY 2015 Accomplishments: Continued to develop and insert technology into existing programs. Technologies include, but are not limited to: reduced signature profiles, improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials; alternative power systems; eco-friendly sustainable energy devices; long duration, reduced size, high output power supplies; and technologies that reduce the load of the operator. Continued development of technologies supporting undersea and ground mobility. Evaluated and developed sensors across the electromagnetic spectrum to meet operational requirements. Continued the integration of critical technologies focused on providing the dismounted special operator leap ahead capabilities via innovative collaborative processes. Began initial effort for field prototype system incorporating			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transferred successful projects into programs of record, and conducted field experimentations at various venues to facilitate technology insertion. ***FY 2016 Plans:*** Continue to develop and insert technology into existing programs. Technologies include, but are not limited to: reduced signature profiles, improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials, alternative power systems, eco-friendly sustainable energy devices, long duration, reduced size, high output power supplies, and technologies that reduce the load of the operator. Continue development of technologies supporting undersea and ground mobility. Evaluate and develop sensors across 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. 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. ***FY 2017 Plans:*** Continues to develop and insert technology into existing programs. Technologies include, but are not limited to: reduced signature profiles, improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials, alternative power systems, eco-friendly sustainable energy devices, long duration, reduced size, high output power supplies, and technologies that reduce the load of the operator. Continues development of technologies supporting undersea and ground mobility. Evaluates and develops sensors across 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 developing unique robotic systems to reduce the load of the operator and augment human performance. Continues to develop Command, Control, Computer, and Intelligence Technology to implement a robust, ultra-wideband communication capability. Continues effort for field prototype system incorporating technologies likely to transition to fielded systems. Based upon agreed technology maturity metrics, transfers successful projects into programs of record, and conducts field experimentations at various venues to facilitate technology insertion.			
Title: Tagging, Tracking, and Locating Technologies (TTL) Sub-Project ***FY 2015 Accomplishments:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploited and integrated recently-proven and emerging technologies for TTL and TTL-enabling systems. Continued projects toward maturity that are linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2016 Plans:***	13.552	15.940	16.201

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploit and integrate recently-proven and emerging technologies for TTL and TTL-enabling systems. Continue projects toward maturity that are linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. Increase focus on tactical sensors and enabling technologies in support of the special reconnaissance mission set. ***FY 2017 Plans:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploits and integrates recently-proven and emerging technologies for TTL and TTL-enabling systems. Continues projects toward maturity that are linked to the USSOCOM/DOD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. Increases focus on tactical sensors and enabling technologies in support of the special reconnaissance mission set.			
Title: Classified Sub-Project ***FY 2015 Accomplishments:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover. ***FY 2017 Plans:*** Details provided under separate cover.	6.462	5.627	5.684
Accomplishments/Planned Programs Subtotals	38.255	45.137	48.097

	FY 2015	FY 2016
Congressional Add: S200: Advanced Technology Development ***FY 2016 Plans:*** Conduct rapid prototyping and advanced technology demonstrations.	-	2.000
Congressional Adds Subtotals	-	2.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) SF101 / *Engineering Analysis*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
SF101: *Engineering Analysis*	0.847	6.660	7.457	8.312	-	8.312	14.827	17.558	17.831	18.108	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project provides a rapid response capability to support Special Operations Forces (SOF) platforms (ground, air and maritime), Unmanned Aerial Vehicle (UAV) payload sensors and soldier systems. 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 platforms, UAV payload sensors and soldier support systems, sub-systems, equipment, and embedded computer software as they relate to the maintenance, overhaul, repair, quality assurance, modifications, materiel improvements, and service life extensions. This project also conducts risk reduction studies, analyses, and demonstrations to support emerging, time-critical weapons and sensor enhancements.

Platform Engineering Analysis: Funding supports engineering assessments and evaluation of technology, manufacturing, and integration readiness in six distinct areas: 1) small UAV payloads; 2) air-to-ground interoperability; 3) mission suite architectures; 4) common sensor suites; 5) low-cost, high-load-out Stand-Off Precision Guided Munitions (SOPGMs) and air-launched UAV; and 6) next generation Intelligence, Surveillance, and Reconnaissance (ISR) capabilities.

Soldier System Engineering Analysis: Funding supports engineering assessments and evaluation of technology feasibility, producibility, and integration readiness in the following areas: 1) next generation lightweight low-cost body armor and ballistic helmets 2) ballistic and laser variable light transmission protective eyewear 3) soldier worn sensors to assess ballistic and blast events as well as soldier health 4) next generation soldier worn load carriage systems 5) soldier worn head borne communications that provide greater situational awareness and hearing protection.

National to Theater Transition Engineering Analysis: Provides additional engineering analysis and testing required to transition items from national forces to theater forces.

Aviation Mission Improved Survivability: Begins engineering analysis activities to address aviation survivability such as signature management, situational awareness, and versatile mission equipment (payloads, communications and weapons) to achieve SOF mission objectives.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Platform Engineering Analysis	5.249	4.865	4.928
FY 2015 Accomplishments: For small UAV payloads, identified, assessed, and evaluated the risks/benefits of efforts to reduce the size, weight, and power of current capabilities to be integrated into Group I-III UAV. Air-to-ground interoperability efforts identified shortfalls and gaps in current SOF air-to-ground communications architecture and recommended and evaluated interoperability enhancements. For mission suite architectures, identified, assessed, and evaluated open architecture approaches to reduce life-cycle costs,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** SF101 / *Engineering Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
increase responsive integration of new capabilities, and increase competition. In the area of common sensor suites, assessed and evaluated individual sensors and suites of sensors to optimize the commonality of sensors between our manned ISR fleet and our Group IV/V UAV. Identified low-cost and high load-out SOPGM and air-launched UAV commodities to reduce costs and provide force multipliers. Identified, assessed, and evaluated risks/benefits/suitability of emerging ISR products and suites. This includes but not limited to: hyper-spectral imaging, moving target indication, Light Detection and Ranging (LIDAR), Signals Intelligence (SIGINT) and high definition Electro-Optical/Infrared (EO/IR) capabilities. ***FY 2016 Plans:*** For small UAV payloads, identify, assess, and evaluate the risks/benefits of efforts to reduce the size, weight, and power of current capabilities to be integrated into Group I-III UAV. Air-to-ground interoperability efforts identify shortfalls and gaps in current SOF air-to-ground communications architecture and recommend and evaluate interoperability enhancements. For mission suite architectures, identify, assess, and evaluate open architecture approaches to reduce life-cycle costs, increase responsive integration of new capabilities, and increase competition. In the area of common sensor suites, assess and evaluate individual sensors and suites of sensors to optimize the commonality of sensors between manned ISR fleet and Group IV/V UAV. Identify low-cost and high load-out SOPGM and air-launched UAV commodities to reduce costs and provide force multipliers. Identify, assess, and evaluate risks/benefits/suitability of emerging ISR products and suites. This includes but not limited to: hyper-spectral imaging, moving target indication, LIDAR, SIGINT and high definition EO/IR capabilities. ***FY 2017 Plans:*** For small UAV payloads, identifies, assesses, and evaluates the risks/benefits of efforts to reduce the size, weight, and power of current capabilities to be integrated into Group I-III UAV. Air-to-ground interoperability efforts identify shortfalls and gaps in current SOF air-to-ground communications architecture and recommends and evaluates interoperability enhancements. For mission suite architectures, identifies, assesses, and evaluates open architecture approaches to reduce life-cycle costs, increase responsive integration of new capabilities, and increase competition. In the area of common sensor suites, assesses and evaluates individual sensors and suites of sensors to optimize the commonality of sensors between manned ISR fleet and Group IV/V UAV. Identifies low-cost and high load-out SOPGM and air-launched UAV commodities to reduce costs and provide force multipliers. Identifies, assesses, and evaluates risks/benefits/suitability of emerging ISR products and suites. This includes but not limited to: hyper-spectral imaging, moving target indication, LIDAR, SIGINT and high definition EO/IR capabilities.			
Title: Soldier System Engineering Analysis	0.480	0.496	0.496
FY 2015 Accomplishments: Continued to assess advanced body armor and ballistic helmet materials, concepts and prototypes to reduce soldier load and provide increased ballistic protection against the latest emerging threats. For eye protection, efforts reduced the number of eyewear lenses needed and to have one lens that provides ballistic and laser protection, as well as automatically darkens/ lightens based on combat conditions. Evaluated soldier worn sensors and heads up display for operability within soldier worn			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** SF101 / *Engineering Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
components and subsystems. Assessed technology feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assessed proof of concepts and technology for next generation head borne communications systems that provide reliable and secure wireless transmission in all combat conditions, as well as provide 360 degree situational awareness and noise attenuation while increasing hearing protection. ***FY 2016 Plans:*** Continue to assess advanced body armor and ballistic helmet materials, concepts and prototypes to reduce soldier load and provide increased ballistic protection against the latest emerging threats. Reduce the number of eyewear lenses needed and to have one lens that provides ballistic and laser protection as well as automatically darkens/lightens based on combat conditions. Evaluate soldier worn sensors and heads up displays for operability within soldier worn components and subsystems. Assess technologies feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assess proof of concepts and technologies for next generation head borne communications systems that provide reliable and secure wireless transmission in all combat conditions, as well as provide 360 degree situational awareness and noise attenuation while increasing hearing protection. ***FY 2017 Plans:*** Continues to assess advanced body armor and ballistic helmet materials, concepts and prototypes to reduce soldier load and provide increased ballistic protection against the latest emerging threats. Reduces the number of eyewear lenses needed and to have one lens that provides ballistic and laser protection as well as automatically darkens/lightens based on combat conditions. Evaluates soldier worn sensors and heads up displays for operability within soldier worn components and subsystems. Assesses technologies feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assesses proof of concepts and technologies for next generation head borne communications systems that provide reliable and secure wireless transmission in all combat conditions, as well as provide 360 degree situational awareness and noise attenuation while increasing hearing protection.			
Title: National to Theater Engineering Analysis ***FY 2015 Accomplishments:*** Conducted additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces. ***FY 2016 Plans:*** Conduct additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces. ***FY 2017 Plans:***	0.931	2.096	2.138

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** SF101 / *Engineering Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Conducts additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.			
Title: Aviation Improved Survivability ***FY 2017 Plans:*** Begins engineering analysis activities to improve SOF aviation 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.	-	-	0.750
Accomplishments/Planned Programs Subtotals	6.660	7.457	8.312

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) S225 / *Information and Broadcast Systems Adv Tech*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S225: *Information and Broadcast Systems Adv Tech*	4.913	4.963	5.147	5.211	-	5.211	5.316	5.412	5.520	5.630	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts rapid prototyping of information and broadcast system technology. Includes cyber capabilities that predict the best media channels to reach potential target audiences, data mining and information collections tools, propaganda and social behavior analytical tools, cultural analysis tool sets and emerging technologies that support the planning and analytical needs for the Military Information Support Operations (MISO) forces. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This project integrates efforts and conducts technology demonstrations in conjunction with joint experiments and other assessment events and performs market research on emerging technologies that support all phases of MISO. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The project also addresses unique, joint special mission or area-specific needs. Seeks technologies that will transform current MISO capabilities through two major objectives: 1) Exploit technologies capable of disseminating products to reach target audiences across a variety of media to include audiences in denied areas. 2) Automate and improve MISO planning and analytical capability through technologies that are integrated into SOF planning systems (Cultural Analysis, Targeting, Theme Development, Media & Product Selection, Distribution & Dissemination, and Measures of Effectiveness). Develops software applications that increases the efficiency and shortens the timeline to get MISO dissemination packages approved. Develops hardware/software tools that facilitate the collaboration and sharing of information and other critical data.

Broadcast and Dissemination Modernization. Develops emerging technologies available in the marketplace to transform and modernize planning, analysis, development, broadcast, distribution, dissemination, and feedback capabilities for MISO forces. This initiative will also continue development of appropriate emerging technologies initially identified by Advance Technology Demonstrations and Joint Capability Technology Demonstrations to transition to acquisition programs. Technologies include: multi-frequency broadcast systems; digital broadcast capabilities; remote controlled electronic paper; near-real-time command and control of unattended systems, especially in denied areas; focused/beam speaker sound technologies; visual projection technologies; advanced commercial broadcast technologies including amplitude modulation and frequency modulation radio transmitters and antenna; television transmitter and antenna systems; internet and telephony dissemination and broadcast systems; technologies capable of long-loiter broadcast and delivery in denied and permissive environment; and technologies that automate and improve planning and analytical capability through integrated capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Broadcast and Dissemination Modernization	4.963	5.147	5.211
FY 2015 Accomplishments: Continued to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S225 / *Information and Broadcast Systems Adv Tech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continue to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities. ***FY 2017 Plans:*** Continues to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
Accomplishments/Planned Programs Subtotals	4.963	5.147	5.211

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	229.897	14.818	65.060	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	309.775
9999: *Special Applications for Contingencies*	229.897	14.818	65.060	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	309.775

A. Mission Description and Budget Item Justification

NOTE: Beginning in FY 2017, this Program Element has been consolidated into SOCOM Program Element 1160434BB, Unmanned ISR.

This program element is part of the Military Intelligence Program (MIP). The SAFC program develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research & Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data exfiltration from denied areas. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	15.794	65.060	20.037	-	20.037
Current President's Budget	14.818	65.060	0.000	-	0.000
Total Adjustments	-0.976	0.000	-20.037	-	-20.037
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.976	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	-20.037	-	-20.037

Change Summary Explanation

Funding:

FY 2015: Decrease of -$0.976 million is due to reprogramming to higher command priorities.

FY 2016: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*

FY 2017: Decrease of -$20.037 million is due to beginning in FY 2017, this Program Element has been consolidated into SOCOM Program Element 1160434BB, Unmanned ISR.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0304210BB / *Special Applications for Contingencies*	Project (Number/Name) 9999 / *Special Applications for Contingencies*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
9999: *Special Applications for Contingencies*	229.897	14.818	65.060	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	309.775
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Military Intelligence Program (MIP) sub-project develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research and Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data exfiltration. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SAFC ***FY 2015 Accomplishments:*** Continued development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Integrated Silent Echo payload on Scan Eagle system. Continued to evaluate unique sensor technologies, persistent stare and quick reaction systems. ***FY 2016 Plans:*** Continue development and combat evaluation of selected sensor delivery platforms and mounted/integrated payloads or deliverable ISR capabilities for global contingencies including short notice requirements. Continue to evaluate unique sensor technologies, persistent stare and quick reaction systems.	14.818	19.460	-	-	-
Title: Classified Program ***FY 2016 Plans:*** Additional details can be provided under separate cover.	-	45.600	-	-	-
Accomplishments/Planned Programs Subtotals	14.818	65.060	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/1108STU: *Small Tactical Unmanned Aerial Systems*	1.500	1.514	-	-	-	-	-	-	-	0.000	3.014
• PROC/0201UMISR: *Unmanned ISR*	-	-	21.190	11.880	33.070	12.555	6.877	6.980	7.443	Continuing	Continuing

Remarks

D. Acquisition Strategy

SAFC acquisition strategy is evolutionary and spiral-based for technology insertion and low volume procurement. As a non-standard DOD acquisition program, it allows sensor capability for maximum flexibility to respond to quickly emerging, short lead time, contingency based requirements.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Platform/Payload Integration	MIPR	Various : Various	138.154	8.891	Mar 2015	11.676	Mar 2016	-		-		-	0.000	158.721	-
Classified Program	SS/ Various	Various : Various	-	-		45.600	Feb 2016	-		-		-	0.000	45.600	-
		Subtotal	138.154	8.891		57.276		-		-		-	0.000	204.321	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	Various	Various : Various	3.654	0.600	Mar 2015	0.611	Mar 2016	-		-		-	0.000	4.865	-
		Subtotal	3.654	0.600		0.611		-		-		-	0.000	4.865	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sensor Testing, Evaluation and Demonstration	MIPR	Various : Various	88.089	5.327	Mar 2015	7.173	Mar 2016	-		-		-	0.000	100.589	-
		Subtotal	88.089	5.327		7.173		-		-		-	0.000	100.589	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	229.897	14.818		65.060		-		-		-	0.000	309.775	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*

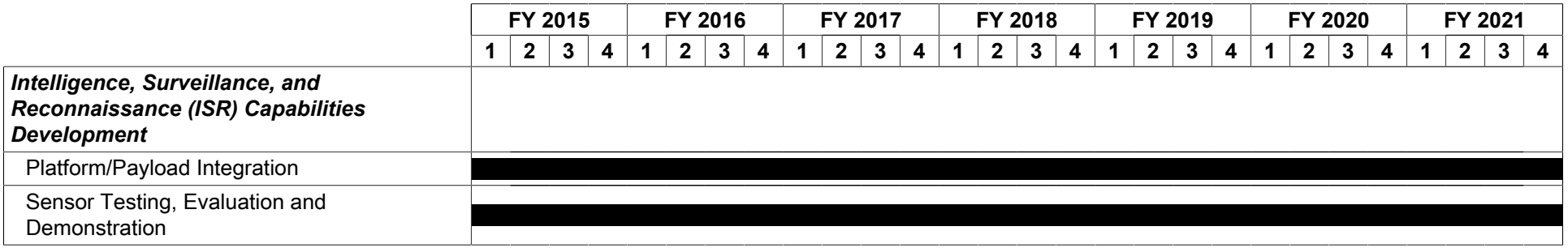

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities Development				
Platform/Payload Integration	1	2015	4	2021
Sensor Testing, Evaluation and Demonstration	1	2015	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	Continuing	Continuing
S400A: *Distributed Common Ground/Surface Systems*	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	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 Intelligence, Surveillance, and Reconnaissance Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Joint Task Force level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighter 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, other national intelligence agencies, combatant commands and Multi-National partners. It connects the SOF warfighter with the essential intelligence information and provides situation awareness information to the SOF leadership at all echelons. The four components of DCGS-SOF include the following: The Enterprise provides infrastructure and processing capability to allow for worldwide SOF intelligence information sharing. Full Motion Video PED provides PED capabilities in garrison and deployed tactical environments of manned and unmanned sensors. SILENT DAGGER provides Signals Intelligence exploitation capability in both garrison and deployable environments. The All Source Information Fusion will provide the intelligence analytical tools via a global and disconnected architecture.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	5.286	5.302	5.456	-	5.456
Current President's Budget	6.262	5.302	5.415	-	5.415
Total Adjustments	0.976	0.000	-0.041	-	-0.041
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.976	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.041	-	-0.041

Change Summary Explanation

Funding:

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305208BB *I Distributed Common Ground/Surface Systems*

FY 2015: Increase of $0.976 million is due to a reprogramming in support of emerging operational requirements to accelerate delivery of enterprise capability on multiple networks, advanced analytics, and the SOF unique user interface.

FY 2016: None.

FY 2017: Decrease of $0.041 million is due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208BB / *Distributed Common Ground/Surface Systems*	Project (Number/Name) S400A / *Distributed Common Ground/ Surface Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S400A: *Distributed Common Ground/Surface Systems*	26.247	6.262	5.302	5.415	-	5.415	5.496	6.345	6.451	6.580	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 Intelligence, Surveillance and Reconnaissance (ISR) Processing, Exploitation, Dissemination (PED), and analytical capabilities at the Joint Task Force level and below through a combination of reach back, forward support, and collaboration. The mission tailored infrastructure interconnects the warfighter 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, other national intelligence agencies, combatant commands and Multi-National partners. It connects the SOF warfighter with the essential intelligence information and provides situation awareness information to the SOF leadership at all echelons. The four components of DCGS-SOF include the following: The Enterprise provides infrastructure and processing capability to allow for worldwide SOF intelligence information sharing. Full Motion Video (FMV) PED provides PED capabilities in garrison and deployed environments of manned and unmanned sensors. SILENT DAGGER provides Signals Intelligence exploitation capability in both garrison and deployable environments. The All Source Information Fusion (ASIF) will provide the intelligence analytical tools via a global and disconnected architecture.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: DCGS	6.262	5.302	5.415
FY 2015 Accomplishments: SOF Ontology testing completed, delivered to DCGS-SOF Enterprise baseline; Continued to integrate emerging technologies and capabilities for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continued to refine and integrate FMV PED emerging technologies to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continued DCGS-SOF Limited Objective Events and exercise participation to test integration efforts.			
FY 2016 Plans: Continue to integrate emerging technologies and capability for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continue to refine and integrate FMV PED emerging technologies and capabilities to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continue DCGS-SOF Limited Objective Events and exercise participation to test integration efforts. Begin development of the DCGS-SOF next generation pipeline development.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Completes integration of emerging technologies and capability for Enterprise and ASIF to include: Advanced analytics, user interface, and disconnected operations into the DCGS-SOF baseline; Continues to refine and integrate FMV PED emerging technologies and capabilities to include: Language translation, upgrading imaging and video exploitation tools, voice-to-text translation, and human detection and characterization; Continues DCGS-SOF Limited Objective Events and exercise participation to test integration efforts; Continues development of the DCGS-SOF next generation pipeline development; Begins development of the interoperability with Coalition partners and DCGS-SOF.			
Accomplishments/Planned Programs Subtotals	6.262	5.302	5.415

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/020401INTL: *Distributed Common Ground/Surface System*	17.323	14.964	13.432	-	13.432	11.529	13.461	14.011	12.435	Continuing	Continuing

Remarks

D. Acquisition Strategy

DCGS-SOF leverages SOF programs, DoD partners and other Government Agencies to integrate commercial/government off-the-shelf systems, and other mature technologies into the Program of Record which resides within the SOF Information Enterprise (SIE) and enables more agile access to (searchable, discoverable) and sharing of data and services to meet SOF-peculiar documented requirements. The technology allows for seamless integration and federation with DoD, interagency, and Coalition ISR tactical PED systems. The DCGS-SOF program office employs an agile 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 J2. Once approved, the requirements are evaluation and scheduled by an engineering development team. 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 the R-4 schedule are based on current program office projections. If requirements change based on the DRWG, the ETI and version capabilities identified may change.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Common Ground System (DCGS) Capabilities Modernization	Various	Various : Various	13.483	0.889	Jan 2015	0.728	Jan 2016	0.747	Jan 2017	-		0.747	Continuing	Continuing	-
Development and Integration - All Source Information Fusion	C/FFP	SITEC : Various	1.775	2.321	Dec 2014	1.995	Mar 2016	2.256	Mar 2017	-		2.256	Continuing	Continuing	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.827	0.329	Oct 2014	0.280	Oct 2015	0.289	Oct 2016	-		0.289	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	0	1.788	-
		Subtotal	17.873	3.539		3.003		3.292		-		3.292	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	C/FFP	SITEC : Various	1.264	1.046	Dec 2014	0.900	Mar 2016	0.928	Mar 2017	-		0.928	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	0	0.576	-
		Subtotal	1.840	1.046		0.900		0.928		-		0.928	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	MIPR	SPAWAR : Charleston, SC	1.440	0.277	Oct 2014	0.239	Oct 2015	-		-		-	-	-	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	1.982	0.329	Oct 2014	0.280	Oct 2015	0.289	Oct 2016	-		0.289	Continuing	Continuing	-
Interoperability Support	MIPR	JITC : Ft Huachuca, AZ	1.032	0.210	Jan 2015	0.180	Jan 2016	0.186	Jan 2017	-		0.186	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Interoperability Testing	C/FFP	SITEC : Various	2.080	0.861	Dec 2014	0.700	Mar 2016	0.720	Mar 2017	-		0.720	Continuing	Continuing	-
		Subtotal	6.534	1.677		1.399		1.195		-		1.195	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	26.247	6.262		5.302		5.415		-		5.415	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

DCGS-SOF
Enterprise & ASIF Schedule

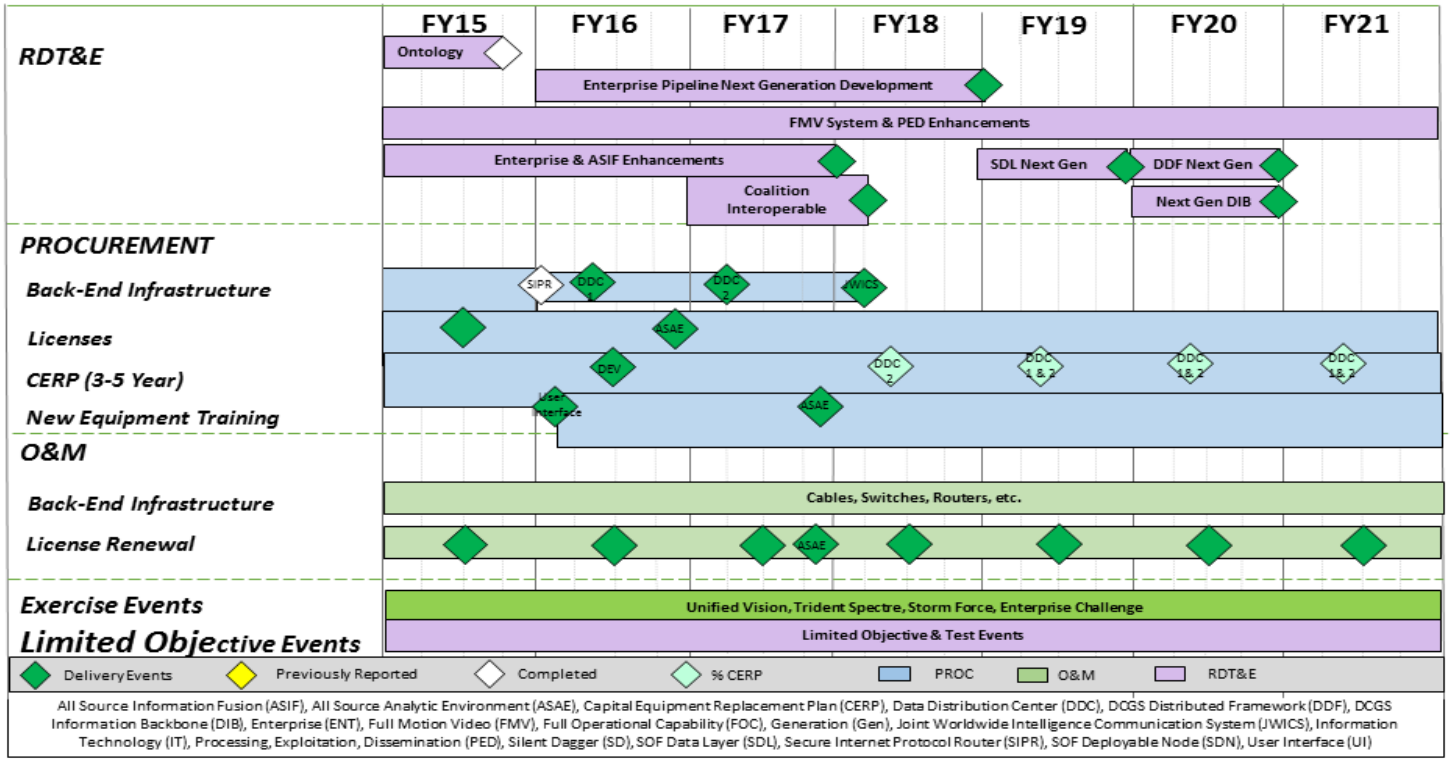

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

DCGS-SOF
FMV Schedule

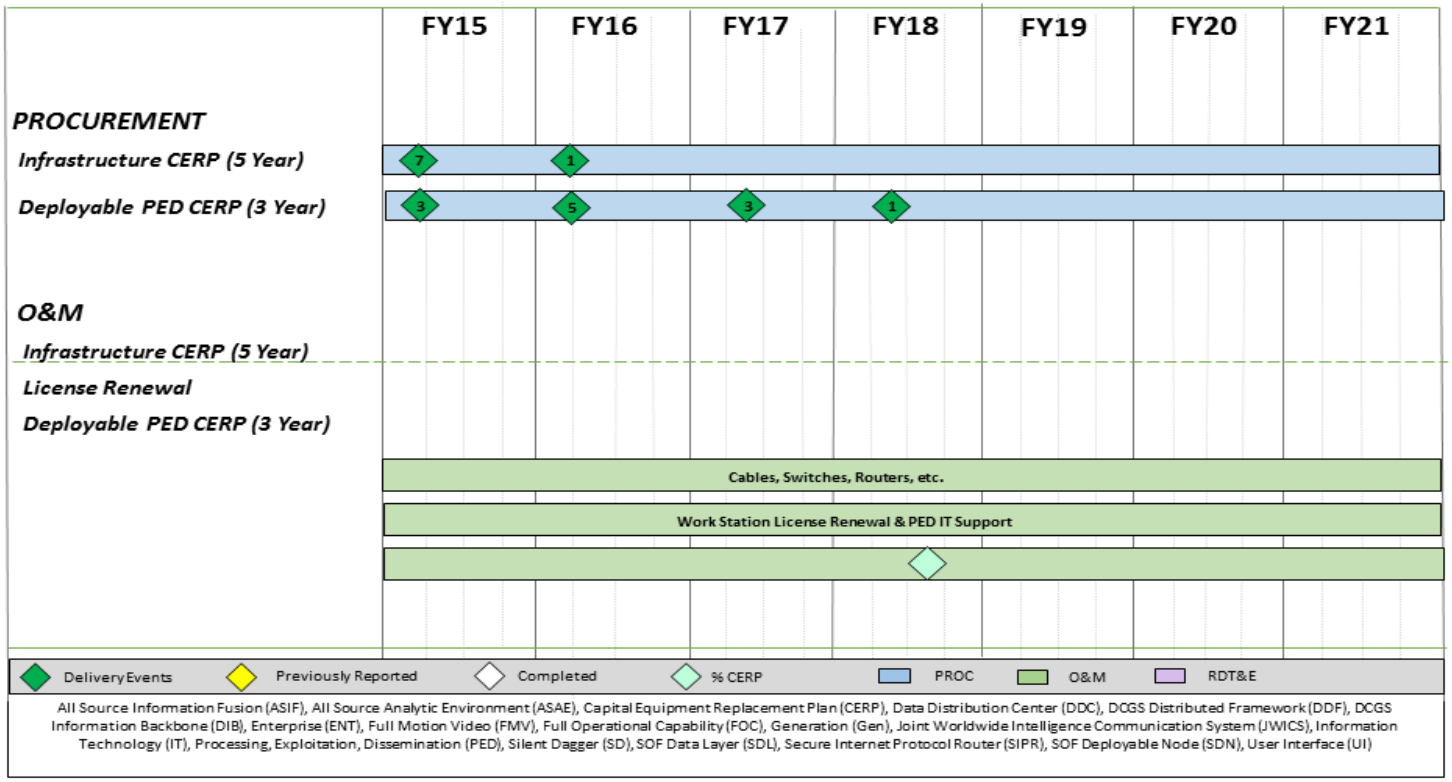

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

DCGS-SOF
Silent Dagger Schedule

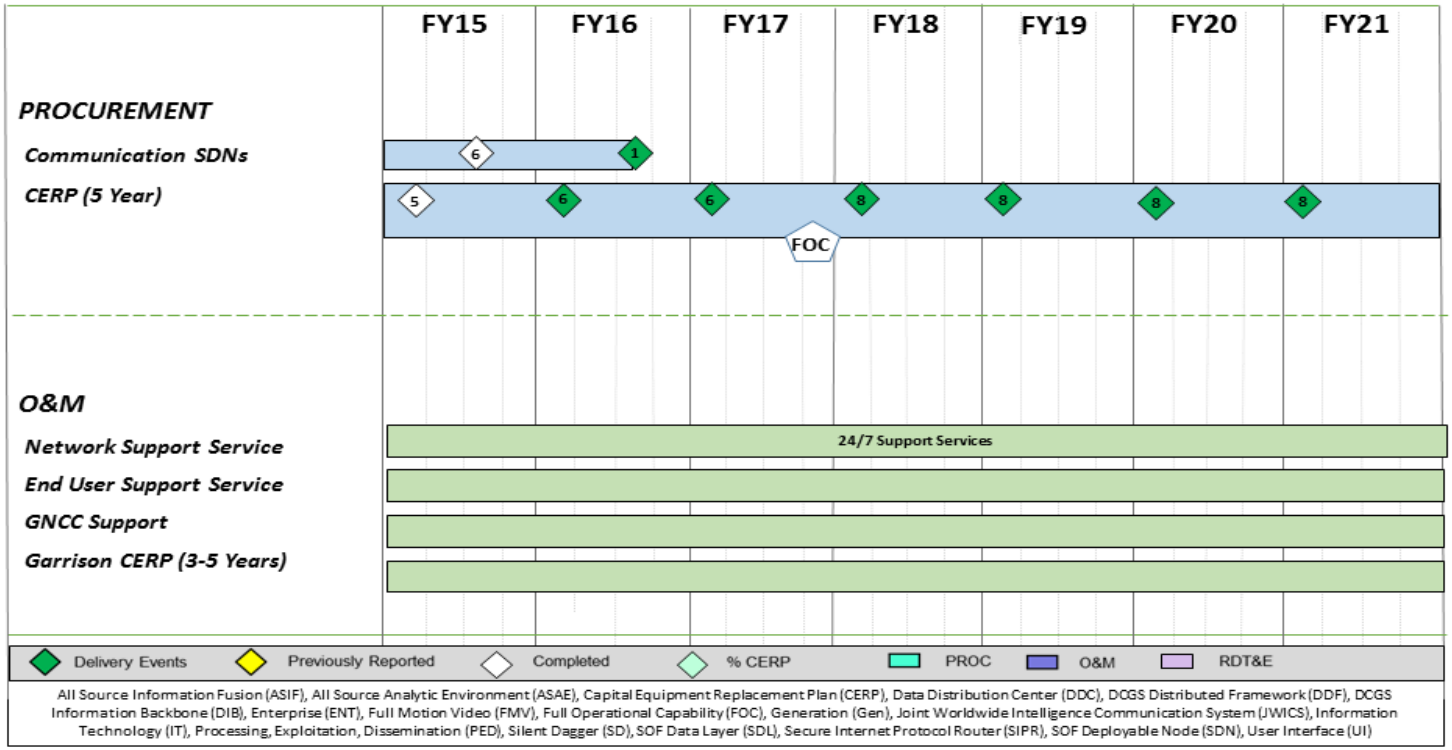

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Develop, integrate, and test DCGS-SOF unique Ontology on the DCGS-SOF enterprise	1	2015	4	2015
Develop, integrate, and test emerging technologies and capabilities for Enterprise and ASIF enhancements to include: advanced analytics, user interface, disconnected operations into DCGS-SOF baseline	1	2015	4	2017
Develop, integrate, test next gen FMV PED tech, capabilities to include: language transl., upgrading imaging, video exploitation tools, voice-to-text transl., human detection and characterization	1	2015	4	2021
Develop, integrate, and test sharing of DCGS-SOF information with Coalition partners	1	2017	1	2018
Develop, integrate, and text next generation DCGS-SOF pipeline to automatically tag and geolocate data from ingested documents	1	2016	4	2018
Develop, integrate, and test SOF Data Layer (SDL) next generation to refine back end design and infrastructure	1	2019	4	2019
Develop, integrate, and test the next generation DCGS Distributed Framework (DDF) providing compliance with DISR/ICSR/DI2E content discovery and retrieval data standards and IdAM/PKI standards	1	2020	4	2020
Develop, integrate, and test the next generation DCGS-SOF Information Backbone to provide integration of services in to the DCGS-SOF Enterprise baseline	1	2020	4	2020
Limited Objective Events to test technology insertion capabilities acros the Enterprise, ASIF, FMV PED, and Silent Dagger	1	2015	4	2021
Participate in Exercise events to include: Trident Spectre, Enterprise Challenge, Storm Force, and D12E Plugfest (annually); United Vision (even fiscal years)	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	27.492	14.418	22.151	17.804	-	17.804	17.863	14.259	14.528	14.819	Continuing	Continuing
S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*	27.492	14.418	22.151	17.804	-	17.804	17.863	14.259	14.528	14.819	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems as a component of the Medium Altitude Long Endurance Tactical program. USSOCOM is designated as the DOD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations (OCO) against terrorist networks. 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 (ISR&T) Acquisition, and Strike.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	14.902	18.151	17.938	0.000	17.938
Current President's Budget	14.418	22.151	17.804	0.000	17.804
Total Adjustments	-0.484	4.000	-0.134	0.000	-0.134
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.484	-			
• Other Adjustments	-	-	-0.134	-	-0.134

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*		
Congressional Add: *MQ-9 UAV*	-	4.000
Congressional Add Subtotals for Project: S851	-	4.000
Congressional Add Totals for all Projects	-	4.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105219BB *I MQ-9 Unmanned Aerial Vehicle (UAV)*

Change Summary Explanation

Funding:

FY 2015: Decrease of -$0.484 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.

FY 2016: Increase of $4.000 million is due to a congressional add to support MQ–9 capability enhancements for mission kits, mission payloads, weapons and modifications.

FY 2017: Decrease of -$0.134 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
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)*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*	27.492	14.418	22.151	17.804	-	17.804	17.863	14.259	14.528	14.819	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems. As the supported combatant command in Overseas Contingency Operations (OCO), 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 (ISR&T) Acquisition and Strike. This project received OCO funding in FY 2015 and a congressional add in FY 2016.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: MQ-9 UAV	14.418	18.151	17.804
FY 2015 Accomplishments: Developed, tested, and completed integration of SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems.			
FY 2016 Plans: Develop, test, and integrate SOF-unique mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, ground control stations, and training systems.			
FY 2017 Plans: Develops, tests, and integrates SOF-unique emerging technology mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, ground control stations, and training systems.			
Accomplishments/Planned Programs Subtotals	14.418	18.151	17.804

	FY 2015	FY 2016
Congressional Add: MQ-9 UAV	-	4.000
FY 2016 Plans: Develop, test, and integrate SOF-unique capability enhancements for mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, ground control stations, and training systems.		
Congressional Adds Subtotals	-	4.000

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
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)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/1108MQ9: *MQ-9 Unmanned Aerial Vehicle*	18.593	17.226	10.598	-	10.598	11.660	5.285	5.411	5.519	Continuing	Continuing

Remarks

D. Acquisition Strategy

MQ-9 UAV is an evolutionary acquisition program that identifies, develops, tests and integrates SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems to increase the Intelligence, Surveillance, Reconnaissance, and Targeting acquisition and strike capabilities of SOF. Proprietary issues with operational flight program software, sensor operating software, and aircraft modification considerations dictate sole source contracts.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
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)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 UAVs, Ground Control Stations, and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	11.619	4.414	Jun 2015	11.113	Jun 2016	10.954	Jun 2017	-		10.954	Continuing	Continuing	-
MQ-9 UAVs, Ground Control Stations, and Training Systems	SS/ Various	Raytheon : McKinney, TX	-	2.500	Jul 2015	2.500	Jul 2016	2.500	Jul 2017	-		2.500	Continuing	Continuing	-
MQ-9 UAVs, Ground Control Stations, and Training Systems Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	9.000	3.900	Jun 2015	-		-		-		-	0.000	12.900	-
MQ-9 UAVs, Ground Control Stations, and Training Systems (Congressional Add)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	-		3.000	Jun 2016	-		-		-	0.000	3.000	-
		Subtotal	20.619	10.814		16.613		13.454		-		13.454	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 UAVs, Ground Control Stations, and Training Systems	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	3.873	2.304	Jun 2015	4.538	Jun 2016	4.350	Jun 2017	-		4.350	Continuing	Continuing	-
MQ-9 UAVs, Ground Control Stations, and Training Systems Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	3.000	1.300	Jun 2015	-		-		-		-	0.000	4.300	-
MQ-9 UAVs, Ground Control Stations, and	SS/ Various	General Atomics Aeronautical	-	-		1.000	Jun 2016	-		-		-	0.000	1.000	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
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)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Training Systems (Conressional Add)		Services : San Diego, CA													
		Subtotal	6.873	3.604		5.538		4.350		-		4.350	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	27.492	14.418		22.151		17.804		-		17.804	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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 MQ-9 Schedule

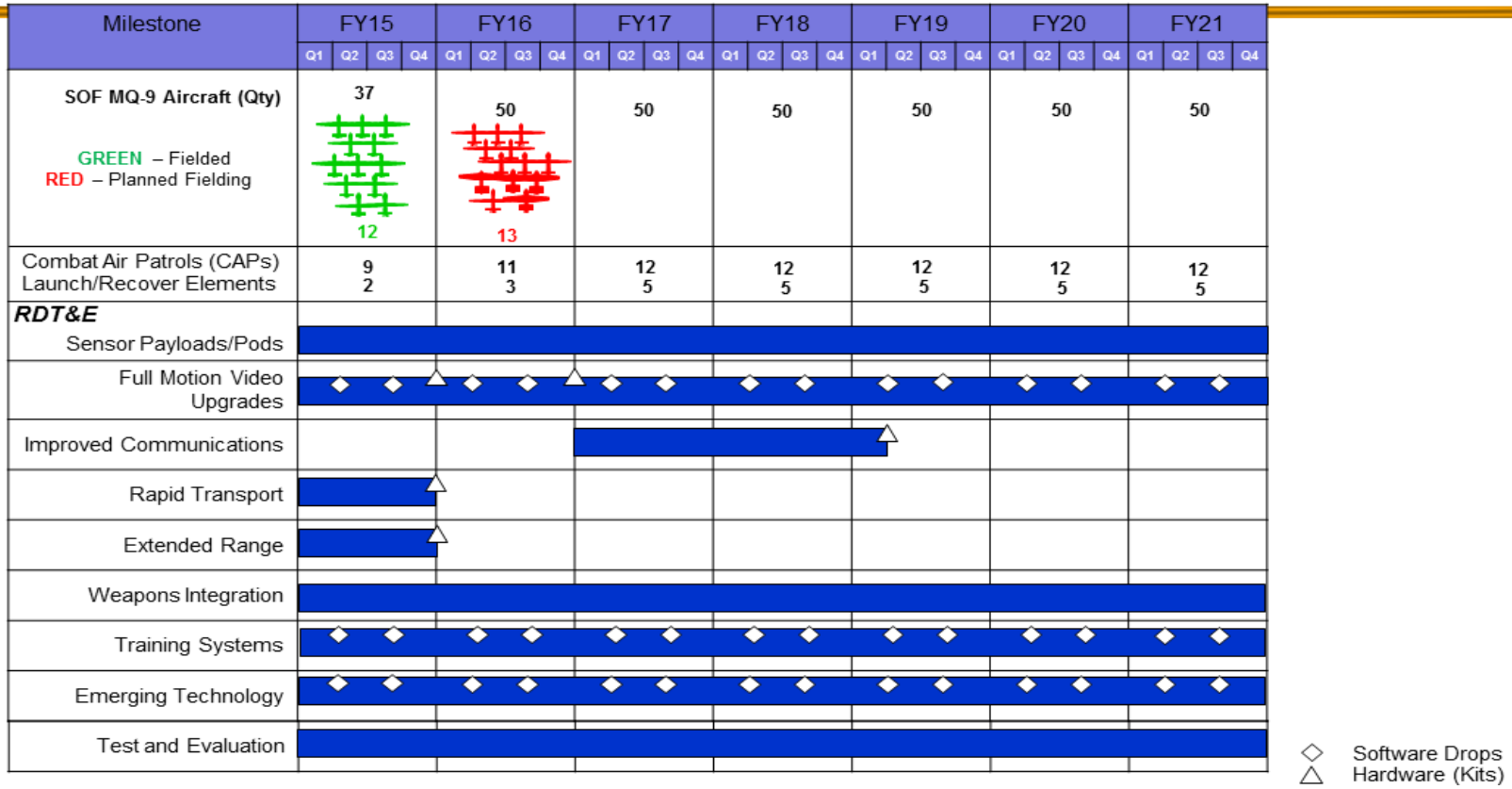

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MQ-9 UAVs, Ground Control Stations, and Training Systems				
Sensor Payloads/Pods	1	2015	4	2021
Full Motion Video Upgrades	1	2015	4	2021
Improved Communications	1	2017	1	2019
Rapid Transport	1	2015	4	2015
Extended Range	1	2015	4	2015
Weapons Integration	1	2015	4	2021
Training Systems	1	2015	4	2021
Emerging Technology	1	2015	4	2021
Test and Evaluation	1	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	1.380	0.259	0.758	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.397
S853: *RQ-11 UAV*	1.380	0.259	0.758	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.397

A. Mission Description and Budget Item Justification

NOTE: Beginning in FY2017, this Program Element has been consolidated into SOCOM Program Element 1160434BB, Unmanned ISR.

This program element is part of the Military Intelligence Program. Two programs are in this program element: Small Unmanned Aerial System (SUAS) and the Multi-mission Tactical Unmanned Aerial System (MTUAS). SUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the SUAS and related ground control stations. MTUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the MTUAS and related ground control stations.

USSOCOM has been designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. 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 line item addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) capabilities for SOF.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.259	0.758	3.332	-	3.332
Current President's Budget	0.259	0.758	0.000	-	0.000
Total Adjustments	0.000	0.000	-3.332	-	-3.332
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-3.332	-	-3.332

Change Summary Explanation

Funding:

FY 2015: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*

FY 2016: None.

FY 2017: Decrease of -$3.332 million is due to beginning in FY 2017, this Program Element has been consolidated into SOCOM Program Element 1160434BB, Unmanned ISR.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1105232BB / *RQ-11 UAV*	Project (Number/Name) S853 / *RQ-11 UAV*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S853: *RQ-11 UAV*	1.380	0.259	0.758	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.397
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program. Two programs are in this project: Small Unmanned Aerial System (SUAS) and the Multi-mission Tactical Unmanned Aerial System (MTUAS). SUAS identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, air vehicle enhancements, and modifications on the SUAS and related ground control stations. MTUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the MTUAS and related ground control stations. The current material solution for SUAS is the All Environment Capable Variant (AECV) of the Puma UAS. The current material solution for MTUAS is the Scan Eagle UAS.

USSOCOM has been designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. 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 line item addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Targeting capabilities for SOF.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SUAS ***FY 2015 Accomplishments:*** Developed, integrated, and tested SOF-unique mission kits, mission payloads, and modifications to the SUAS and ground control station, to include improved capabilities for geo-location, collection of push-to-talk, communications, specialized tagging, tracking, and locating, and enhanced communications relay. ***FY 2016 Plans:*** Develop, integrate, and test SOF-unique mission kits, mission payloads, and modifications to the SUAS 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.	0.259	0.261	-	-	-
Title: MTUAS ***FY 2016 Plans:*** Develop, integrate, and test SOF-unique mission kits, mission payloads, and modifications to the MTUAS and ground control station, to include but not limited to; signals intelligence gathering and geo-location.	-	0.497	-	-	-
Accomplishments/Planned Programs Subtotals	0.259	0.758	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0809RQ11: *RQ-11 Unmanned Aerial Vehicle*	6.397	15.587	-	-	-	-	-	-	-	0.000	26.484
• PROC/0201UMISR: *Unmanned ISR*	-	-	21.190	11.880	33.070	12.555	6.877	6.980	7.443	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SUAS and MTUAS are evolutionary acquisition programs that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, weapons, air vehicle enhancements, and ground control station upgrades. 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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1105232BB / *RQ-11 UAV*	Project (Number/Name) S853 / *RQ-11 UAV*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Unmanned Aircraft System Payloads	C/IDIQ	Various : Various	1.380	0.259	Mar 2015	0.261	Mar 2016	-		-		-	0.000	1.900	-
Multi-Mission Tactical Unmanned Aircraft System Payloads	C/TBD	Various : Various	-	-		0.497	Mar 2016	-		-		-	0.000	0.497	-
		Subtotal	1.380	0.259		0.758		-		-		-	0.000	2.397	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.380	0.259		0.758		-		-		-	0.000	2.397	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*

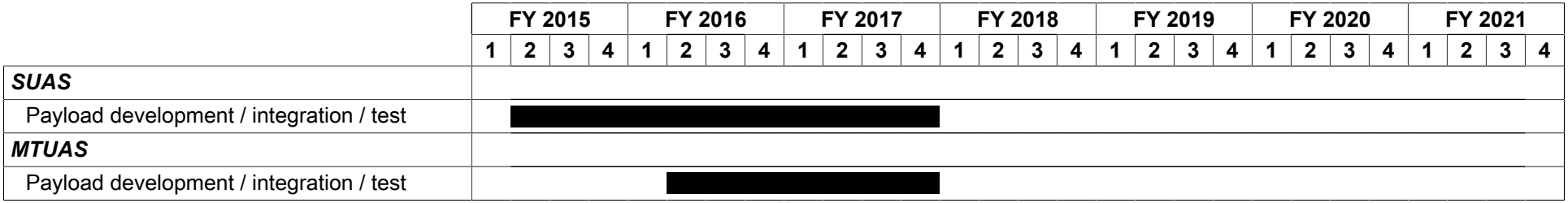

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SUAS				
Payload development / integration / test	2	2015	4	2017
MTUAS				
Payload development / integration / test	2	2016	4	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	172.933	14.438	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S050: *Small Business Innovative Research*	171.634	12.688	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
S051: *Small Business Technology Transfer*	1.299	1.750	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. Small Business Innovative Research (SBIR) is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2012. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Phase II projects expand the results of, and further pursue, the developments of Phase I. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. USSOCOM participates annually in the DOD Request for Proposal process. USSOCOM then awards its proposed SBIR projects. FY 2014 is the first year USSOCOM is participating in the Small Business Technology Transfer (STTR) program. The STTR goal is similar to the SBIR program, but the STTR program has the additional goal to expand public/private sector partnerships between small business and nonprofit U.S. research institutions.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	14.438	0.000	0.000	-	0.000
Total Adjustments	14.438	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	14.438	-			

Change Summary Explanation

Funding:

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*

FY 2015: Increase of $14.438 million is due to reprogramming from various program elements for the congressionally mandated Small Business Innovative Research ($12.688 million) and Small Business Technology Transfer ($1.750 million) programs.

FY 2016: None.

FY 2017: None.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S050: *Small Business Innovative Research*	171.634	12.688	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

This project consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. Small Business Innovative Research (SBIR) is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2012. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Phase II projects expand the results of, and further pursue, the developments of Phase I. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. USSOCOM participates annually in the DOD Request for Proposal process. USSOCOM then awards its proposed SBIR projects.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Small Business Innovative Research (SBIR)	12.688	-	-
FY 2015 Accomplishments: Awarded numerous Phase I and Phase II contracts and contract options for SBIR topics: Maritime Surface Search Phase Array, Dual Speed Read Out Integrated Circuit, Abrasion Laceration & Puncture Protection, Novel Optical Solutions, Reduced Size, Weight, and Power Enhanced Electro-Optical, and Team Special Reconnaissance Day/Night Motion Sensor.			
Accomplishments/Planned Programs Subtotals	12.688	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Small Business Innovative Research (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 DOD 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.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Maritime Surface Search Phase Array	C/FFP	Various : Various	-	0.300	Jul 2015	-		-		-		-	0.000	0.300	-
Dual Speed Read Out Integrated Circuit (IC) (ROIC)	C/CPFF	NU TREK : San Diego, CA	0.906	-		-		-		-		-	0.000	0.906	-
Abrasion, Laceration and Puncture Protection	C/CPFF	Nanosonic : Pembroke, VA	0.250	0.018	Apr 2015	-		-		-		-	0.000	0.268	-
Novel Optical Solutions	C/FFP	Various : Various	-	0.450	Aug 2015	-		-		-		-	0.000	0.450	-
Reduced SWAP Enhanced Electro-Optical	C/FFP	Various : Various	-	0.600	Aug 2015	-		-		-		-	0.000	0.600	-
Team Special Reconnaissance Day/Night Motion Sensor	C/FFP	Various : Various	-	0.600	Aug 2015	-		-		-		-	0.000	0.600	-
Phase II >$750K	C/CPFF	Various : Various	6.973	10.720	Feb 2016	-		-		-		-	0.000	17.693	-
Prior Year Funding	C/Various	Various : Various	163.505	-		-		-		-		-	0.000	163.505	-
		Subtotal	171.634	12.688		-		-		-		-	0.000	184.322	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	171.634	12.688		0.000		-		-		-	0.000	184.322	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

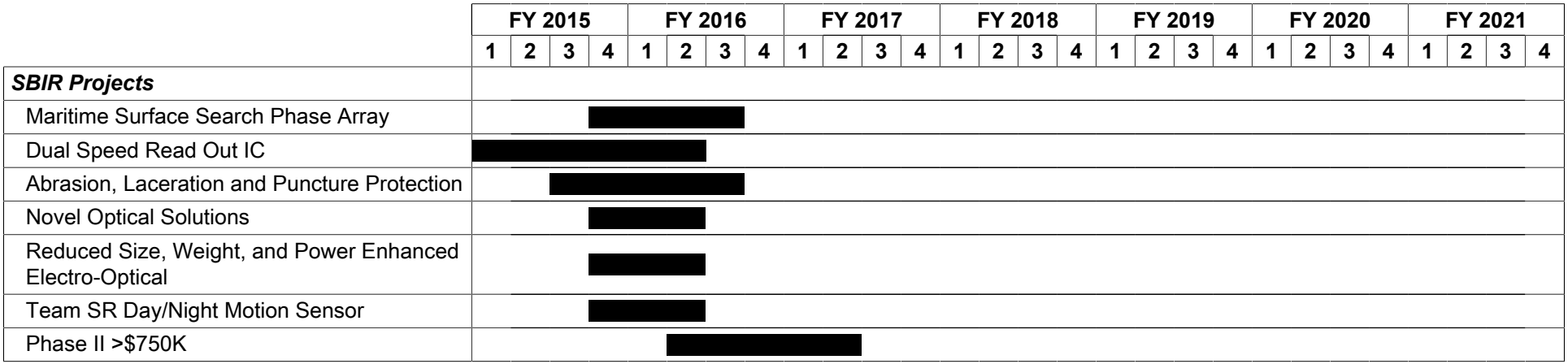

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SBIR Projects				
Maritime Surface Search Phase Array	4	2015	3	2016
Dual Speed Read Out IC	1	2015	2	2016
Abrasion, Laceration and Puncture Protection	3	2015	3	2016
Novel Optical Solutions	4	2015	2	2016
Reduced Size, Weight, and Power Enhanced Electro-Optical	4	2015	2	2016
Team SR Day/Night Motion Sensor	4	2015	2	2016
Phase II >$750K	2	2016	2	2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160279BB / *Small Business Innovative Research*	Project (Number/Name) S051 / *Small Business Technology Transfer*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S051: *Small Business Technology Transfer*	1.299	1.750	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

Small Business Technology Transfer (STTR) goal is the expand public/private sector partnerships between small business and nonprofit U.S. research institutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Small Business Technology Transfer (STTR)	1.750	-	-
FY 2015 Accomplishments: A Science and Technology (STTR) Phase II contract was awarded to produce a prototype for the MK3 Upper Extremity Exoskeleton to support USSOCOM's Tactical Assault Light Operator Suite program.			
Accomplishments/Planned Programs Subtotals	1.750	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

STTR provides early-stage R&D funding directly to small companies working cooperatively with researchers at universities and other research institutions. STTR program is also a three-phased program and 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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S051 / *Small Business Technology Transfer*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Assault Light Operator Arm Reaction/ Manipulation System Development	C/FFP	Materials & Electrochemical Research : Tucson, AZ	1.110	1.311	Dec 2015	-		-		-		-	0.000	2.421	-
STTR < $1M	C/FFP	Various : Various	0.189	0.439	Sep 2016	-		-		-		-	Continuing	Continuing	-
		Subtotal	1.299	1.750		-		-		-		-	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.299	1.750		0.000		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S051 / *Small Business Technology Transfer*

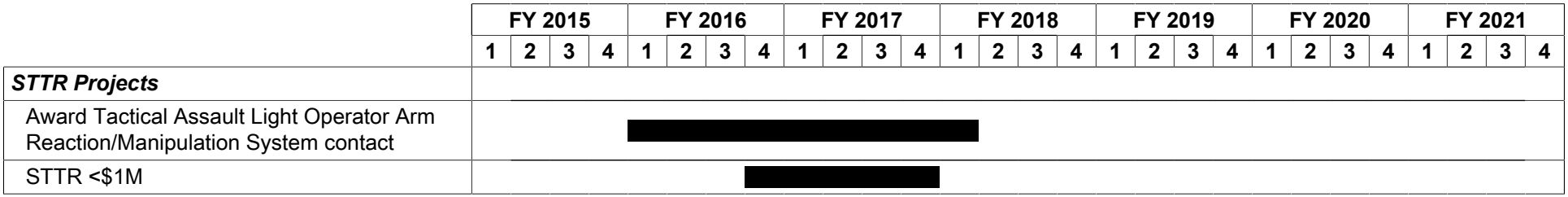

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S051 / *Small Business Technology Transfer*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
STTR Projects				
Award Tactical Assault Light Operator Arm Reaction/Manipulation System contact	1	2016	1	2018
STTR <$1M	4	2016	4	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	579.233	149.337	179.134	159.143	-	159.143	155.919	118.929	79.662	99.885	Continuing	Continuing
SF100: *Aviation Systems Advanced Development*	534.228	61.627	102.030	91.659	-	91.659	97.816	51.486	22.742	23.197	Continuing	Continuing
SF200: *CV-22*	2.817	0.176	0.000	15.590	-	15.590	14.259	21.635	4.961	0.000	0.000	59.438
S750: *Mission Training and Preparation Systems*	4.696	8.141	7.052	7.890	-	7.890	8.181	8.252	8.309	9.408	Continuing	Continuing
S875: *AC/MC-130J*	9.915	17.874	7.398	7.964	-	7.964	8.650	12.605	24.127	53.408	Continuing	Continuing
D615: *Rotary Wing Aviation*	27.577	61.519	62.654	36.040	-	36.040	27.013	24.951	19.523	13.872	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 212

A. Mission Description and Budget Item Justification

Aviation Systems Advanced Development:
This project provides for the development, 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 such areas as: SOF specific avionics; Low Probability of Intercept/Low Probability of Detection (LPI/LPD) terrain following/terrain avoidance radar; Defensive Countermeasures; Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP); AC-130H, AC-130W, and AC-130U Recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; enhanced situational awareness; 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 and ISR payload technological improvements with size, weight, power and integration onto all SOF ISR platforms.

CV-22 Development:
The CV-22 is a SOF variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 project provides long range, high speed, infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments. The funding in this project supports these block increments as well as associated flight test support. The Block 10 increment was completed in FY 2007, and the Block 20 increment started in FY 2008. Block 20: 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, more robust performance in situational awareness, ISR, weapons, avionics, survivability, maneuverability, mission deployment and improved reliability and maintainability of the CV platform. CV-22 Terrain Following/Terrain Avoidance (TF/TA) Radar (Silent Knight Radar) program provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas to infill, exfill, and resupply SOF forces. Provides more sustainable/ capable replacement to obsolescing and tech limited terrain following/avoidance radar.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

Mission Training and Preparation Systems:
The Special Operations Mission Planning and Execution (SOMPE) project funds the definition, design, development, prototyping, integration, and testing of 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 Mission Training and Preparation Systems (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.

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 MC-130J Commando II aircraft perform clandestine or low visibility, single or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; and airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft. Additional capabilities include low-level navigation and in-flight refueling. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. An incremental upgrade approach will be used to incorporate SOF capabilities onto the aircraft and training systems.

Rotary Wing Aviation:
This project develops SOF-unique modifications and upgrades to SOF rotary wing aircraft that operate in increasingly hostile environments. This project also includes modifications to Aircraft Survivability Equipment (ASE) and weapons systems to counter rapidly emerging threats, improve lethality and enhance aircraft self-protection. Rotary wing aircraft supported by this project include: MH-60M, MH-47G, and A/MH-6M. 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 operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	158.733	173.934	133.619	-	133.619
Current President's Budget	149.337	179.134	159.143	-	159.143
Total Adjustments	-9.396	5.200	25.524	-	25.524
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-10.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	7.700			
• Congressional Directed Transfers	-	7.500			
• Reprogrammings	-4.246	-			
• SBIR/STTR Transfer	-5.150	-			
• Other Adjustments	-	0.000	25.524	-	25.524

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: SF100: *Aviation Systems Advanced Development*		
Congressional Add: *C-130 Terrain Following (TF) Radar System*	-	7.700
Congressional Add Subtotals for Project: SF100	-	7.700
Congressional Add Totals for all Projects	-	7.700

Change Summary Explanation

Funding:

FY 2015: Decrease of $9.396 million is due to reprogramming to higher command priorities (-$4.246 million) and a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs (-$5.150 million).

FY 2016: Net increase of $5.200 million is due to a $10.000 million Congressional directed reduction to MH-60M Block Upgrades (-$0.700 million), Future Vertical Lift (-$0.500 million), Mission Processor Upgrade (-$2.800 million) and, Electronic Warfare - Radio Frequency Countermeasures (-$6.000 million); Congressional directed transfer of $7.500 million to the C-130 Terrain Following Radar, and congressional add of $7.700 million to the C-130 Terrain Following Radar.

FY 2017: Net increase of $25.524 million is to continue integration and test of the SOF Common TF radar and modifications to aircraft controls and displays to automate TF/TA flight for the MC-130J ($37.039 million); define systems requirements, develop initial capabilities document, and conduct system readiness review for the CV-22 TF/TA radar ($15.590 million); design, develop, and test for A/MH-6M aircraft Block 3.0 upgrade ($5.991 million); develop and test for software applications on tactical mobile devices ($0.898 million); complete design, develop, and test for degraded visual environment ($5.000 million); complete

development, integration and test of missile warning and lightweight infrared countermeasures for the A/MH-6 aircraft ($2.498 million), a realignment to higher command priorities (-$20.878 million), a reduction by the Department to account for prior year execution balances (-$19.272 million), and a decrease due to Departmental economic adjustments (-$1.342 million).

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF100 / *Aviation Systems Advanced Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
SF100: *Aviation Systems Advanced Development*	534.228	61.627	102.030	91.659	-	91.659	97.816	51.486	22.742	23.197	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the investigation, evaluation, 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 such areas as: SOF specific avionics; low probability of intercept/low probability of detection (LPI/LPD), terrain following/terrain avoidance (TF/TA) radar; Defensive Countermeasures (DCM) which includes Electronic Warfare – Radio Frequency Countermeasures (EW-RFCM); Precision Strike Package (PSP); AC-130H, AC-130W, and AC-130U recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; Enhanced Situational Awareness (ESA); near-real-time intelligence to include data fusion, threat detection and avoidance; navigation, target detection and identification technologies; digital broadcast capability; aerial refueling; and Intelligence, Surveillance, Survivability and Reconnaissance (ISR) payload technological improvements with size, weight, power and integration onto all SOF ISR platforms.

• EC-130J Upgrades provides for integration of SOF-unique implementation of the C-130J block cycle upgrade as installed on the EC-130J Commando Solo aircraft and development of digital broadcast capabilities.

• Enhanced Situational Awareness (ESA) provides SOF C-130 fleet with near-real-time intelligence reporting to include data fusion, threat detection, identification, and avoidance.

• EW-RFCM supports development, integration and test activities to provide EW capability against RF threats for SOF AC/MC-130J aircraft. The DCM suite is an integrated package of existing aircraft defensive systems which provides situational awareness and threat response processing; this includes the Radio Frequency Countermeasures (RFCM) system, and future defensive systems. RFCM program provides SOF-unique aircraft defensive capabilities required for SOF missions. The FY 2017 funding request was reduced by $4.636 million to account for the availability of prior year execution balances.

• PSP for SOF supports systems engineering, analysis, development, and enhancement of the baseline PSP for later integration and installation onto 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 C-130s and other SOF platforms. Missions for the AC-130 aircraft include, but are not limited to, Close Air Support (CAS), Air Interdiction, and Armed Reconnaissance. PSP is modular, scalable, and platform neutral.

• PSP Large Caliber Gun supports systems engineering, analysis, development, integration, and test of a large caliber gun capability enhancement to the PSP installed on the AC-130 aircraft.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

• C-130 TF Radar System supports development, 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 and reduce pilot, copilot and Combat Systems Officer workload during missions previously performed by five aircrew members on legacy C-130 tankers and penetrators. This project received a congressional add in FY 2016. The FY 2017 funding request was reduced by $4.636 million to account for the availability of prior year execution balances.

• SOF Common TF/TA (Silent Knight) Radar supports Engineering and Manufacturing Development, qualification, and operational flight testing of a SOF common TF/TA LPI/LPD radar to defeat advanced passive detection threats while maintaining ability to fly safe TF. This radar is targeted for use on all MH-47G heavy assault helicopters, MH-60M medium assault helicopters, MC-130J Commando II and CV-22B Osprey aircraft.

• EC-130J Commando Solo supports development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.

• ISR Payload Sensor Technology supports development, integration, and testing of sensor miniaturization effort to place large ISR platform capability, such as Group 4-5 unmanned aerial systems (UASs) onto all SOF ISR platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: EC-130J Upgrades	3.389	4.161	1.144
FY 2015 Accomplishments: Began development of trial kit installation of C-130J block cycle upgrade.			
FY 2016 Plans: Continue development and testing of trial kit installation of C-130J block cycle upgrade.			
FY 2017 Plans: Continues testing of C-130J block cycle upgrade.			
Title: ESA	0.749	-	-
FY 2015 Accomplishments: Began flight test for ESA system on SOF C-130 aircraft.			
Title: EW – RFCM	10.930	37.691	39.759
FY 2015 Accomplishments: Conducted source selection and began development, integration and test of EW capability against RF threats for SOF AC/MC-130J aircraft.			
FY 2016 Plans: Continue development, integration and testing to provide EW capability against RF threats for SOF AC/MC-130J aircraft.			
FY 2017 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continues development, integration and testing to provide EW capability against RF threats for SOF AC/MC-130J aircraft.			
Title: PSP for SOF ***FY 2015 Accomplishments:*** Continued development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft. ***FY 2016 Plans:*** Continue development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft. ***FY 2017 Plans:*** Continues development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft.	10.307	13.294	10.294
Title: PSP Large Caliber Gun ***FY 2015 Accomplishments:*** Continued development, integration and testing of large caliber gun capability upgrade of the PSP installed on AC-130 aircraft. ***FY 2016 Plans:*** Complete development, integration and testing of large caliber gun capability upgrade to the PSP installed on AC-130 aircraft.	3.077	0.801	-
Title: C-130 Terrain Following (TF) Radar System ***FY 2015 Accomplishments:*** Completed contractor flight test of the APN-241 modified for TF on an MC-130J aircraft. ***FY 2016 Plans:*** Begin contracting efforts to integrate and test the SOF common APQ-187 (Silent Knight) TF radar system on MC-130J development testing aircraft and develop modifications to aircraft controls and displays to reduce aircrew workload. This includes integrating the TF radar system with the MC-130J Increment 3 special mission processors. ***FY 2017 Plans:*** Continues SOF Common APQ-187 TF radar system and aircraft control and display integration efforts. Prepare for flight test.	19.397	34.674	38.905
Title: SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar ***FY 2015 Accomplishments:*** Completed developmental flight testing on the MH-47G and MH-60M helicopters and progressed through qualification flight testing.	12.412	-	-
Title: EC-130J Commando Solo ***FY 2015 Accomplishments:***	1.366	2.375	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Began development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft. ***FY 2016 Plans:*** Completes integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.			
Title: Intelligence, Surveillance, and Reconnaissance Payload ***FY 2016 Plans:*** Begin development, integration, and testing of sensor miniaturization effort to place large ISR platform capabilities, such as Group 4-5 unmanned aerial systems (UASs) and fixed wing systems onto all SOF ISR platforms (e.g. such as Group 2-3 UASs). ***FY 2017 Plans:*** Continues spiral development to increase the smaller SOF ISR platforms' capabilities through incremental development, integration, and testing.	-	1.334	1.557
Accomplishments/Planned Programs Subtotals	61.627	94.330	91.659

	FY 2015	FY 2016
Congressional Add: C-130 Terrain Following (TF) Radar System ***FY 2016 Plans:*** Begin contracting efforts to integrate and test the SOF common APQ-187 TF radar system on MC-130J development testing aircraft and develop modifications to aircraft controls and displays to reduce aircrew workload. This includes integrating the TF radar system with the MC-130J Increment 3 special mission processors.	-	7.700
Congressional Adds Subtotals	-	7.700

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/5000C13000: *C-130 Modifications*	24.090	26.412	32.970	-	32.970	39.219	51.424	55.826	50.316	Continuing	Continuing
• PROC/1202PSP: *Precision Strike Package*	131.929	204.105	213.122	-	213.122	191.880	195.476	200.478	204.983	Continuing	Continuing
• PROC0201RWUPGR: *Rotary Wing Upgrades and Sustainment*	163.006	135.985	150.396	-	150.396	169.686	147.659	139.536	144.361	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

D. Acquisition Strategy

• EC-130J Upgrades: Operational Flight Program Block Cycle is being developed by the Air Force program office using existing development and production contracts.

• ESA: Integrate Government/Commercial off-the-shelf communications and computing hardware and software into into carry-on kits for enhanced situational awareness systems.

• EW – RFCM: Award up to two competitive Engineering and Manufacturing Development (EMD) contracts for development, integration and test of an RF Countermeasures System on AC/MC-130J aircraft.

• 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 Large Caliber Gun: Combination of Government Service activity and contractor development, integration and test for large caliber gun capability enhancement for the PSP installed on AC-130 aircraft. Multiple contract awards.

• C-130 TF Radar System: Awarded delivery order on Cost Plus Incentive Fee contract to integrate and test the SOF common APQ-187 TF radar system on MC-130J aircraft and develop modifications to aircraft displays and controls. Government development, Test and Evaluation, FY 2018 - FY 2020; Operational Test and Evaluation, FY 2021 with Initial Operational Capability, Q4FY2021.

• SOF Common TF/TA (Silent Knight) Radar: Competitive EMD contract was awarded to Raytheon in FY 2007 for radar B Kit design, development, and testing. Subsequent MH-47G and MH-60M A Kit design, integration, and test efforts awarded to Lockheed Martin (SOFSA). Follow-on platform A Kit design, integration, and test efforts will be awarded in FY 2018 - FY 2019. MH-47G and MH-60M A Kit production and installation will be completed at the SOFSA. A follow-on Full Rate Production Firm-Fixed-Price contract following completion of operational testing.

• EC-130J Commando SOLO: Digital broadcast capabilities are being developed through an incremental acquisition strategy to incorporate and test readily available equipment into the EC-130J aircraft.

• ISR Payload Sensor Technology: Effort is being executed via a spiral development, integration and testing acquisition strategy based on leveraging existing sensor technology. The focus will be on reducing the size, weight, power and cost of state of the art ISR sensors fielded on larger ISR platforms, such as Group 4-5 unmanned aircraft systems (UAS), in order to make them useable by smaller SOF ISR platforms, such as Group 2-3 UAS. This development will include the integration of the ISR capability with the platform's C2 and Communications systems as appropriate. Example classes of sensors to be included under this development are: Signal Intelligence, Electro Optical / Infrared / Multi-spectral / Synthetic Aperture Radar, Tagging, Tracking, and Locating, and clandestine communications. Integrated systems may include the ability to generate CAT 1 or 2 National Geo-Spatial Agency - validated targeting coordinates.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EC-130J Upgrades	C/CPIF	Lockheed Martin : Marietta, GA	5.811	3.389	Dec 2014	4.161	Aug 2016	1.144	Aug 2017	-		1.144	Continuing	Continuing	-
Enhanced Situational Awareness (ESA) for MC-130H	C/Various	Robins AFB : Warner-Robins, GA	2.300	0.749	Jun 2015	-		-		-		-	0.000	3.049	-
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)	C/Various	Robins AFB : Warner Robins, GA	1.936	5.679	Jul 2015	27.007	Feb 2016	25.259	Jan 2017	-		25.259	Continuing	Continuing	-
Precision Strike Package (PSP) for SOF	TBD	Various : Various	85.402	4.711	Jan 2015	3.125	Jan 2016	8.807	Jan 2017	-		8.807	Continuing	Continuing	-
PSP Large Caliber Gun	C/TBD	Various : Various	9.083	1.534	Mar 2015	-		-		-		-	0.000	10.617	-
C-130 Terrain Following (TF) Radar System	C/CPIF	Various : Various	53.355	7.344	Jan 2015	24.355	Apr 2016	28.609	Jan 2017	-		28.609	Continuing	Continuing	-
C-130 Terrain Following (TF) Radar System (Congressional Add)	C/CPIF	Various : Various	-	-		7.700	Apr 2016	-		-		-	0.000	7.700	-
SOF Common Terrain Following/Terrain Avoidance (TF/TA) Radar - Systems Engineering	C/Various	Various : Various	17.308	9.346	Jan 2015	-		-		-		-	0.000	26.654	-
SOF Common TF/TA Radar	C/CPIF	Raytheon : Dallas, TX	79.829	-		-		-		-		-	0.000	79.829	-
EC-130J Commando Solo	C/CPFF	Johns Hopkins University APL : Baltimore, MD	-	1.366	Aug 2015	2.375	Feb 2016	-		-		-	0.000	3.741	-
Intelligence, Surveillance, and Reconnaissance Payload	TBD	Various : Various	-	-		1.334	Mar 2016	1.557	Mar 2017	-		1.557	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	80.572	-		-		-		-		-	0.000	80.572	-
		Subtotal	335.596	34.118		70.057		65.376		-		65.376	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSP for SOF	C/Various	Various : Various	4.885	0.349	Dec 2014	-		-		-		-	0.000	5.234	-
PSP Large Caliber Gun	C/Various	Various : Various	1.051	0.183	Dec 2014	-		-		-		-	0.000	1.234	-
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	2.001	2.555	Dec 2014	3.028	Apr 2016	4.788	Dec 2016	-		4.788	Continuing	Continuing	-
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)	C/Various	Robins AFB : Warner Robins, GA	-	5.251	Jan 2015	6.184	Feb 2016	5.700	Jan 2017	-		5.700	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	22.334	-		-		-		-		-	0.000	22.334	-
		Subtotal	30.271	8.338		9.212		10.488		-		10.488	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)	C/Various	Robins AFB : Warner Robins, GA	-	-		4.500	Feb 2016	8.800	Jan 2017	-		8.800	Continuing	Continuing	-
PSP for SOF	C/Various	Various : Various	10.180	5.247	Jan 2015	10.169	Jan 2016	1.487	Dec 2016	-		1.487	Continuing	Continuing	-
PSP Large Caliber Gun	C/Various	Various : Various	7.280	1.360	Jan 2015	0.801	Jan 2016	-		-		-	0.000	9.441	-
C-130 TF Radar System	C/CPIF	Various : Various	2.612	6.847	Dec 2014	5.046	Apr 2016	1.118	Dec 2016	-		1.118	Continuing	Continuing	-
SOF Common TF/TA Radar	C/CPIF	Various : Various	115.753	1.966	Jan 2015	-		-		-		-	Continuing	Continuing	-
		Subtotal	135.825	15.420		20.516		11.405		-		11.405	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF100 / *Aviation Systems Advanced Development*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	2.620	2.651	Dec 2014	2.245	Dec 2015	4.390	Dec 2016	-		4.390	Continuing	Continuing	-
SOF Common TF/TA Radar	C/CPIF	Raytheon : Dallas, TX	29.916	1.100	Jan 2015	-		-		-		-	0.000	31.016	-
		Subtotal	32.536	3.751		2.245		4.390		-		4.390	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	534.228	61.627		102.030		91.659		-		91.659	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

EC-130J Upgrades Schedule

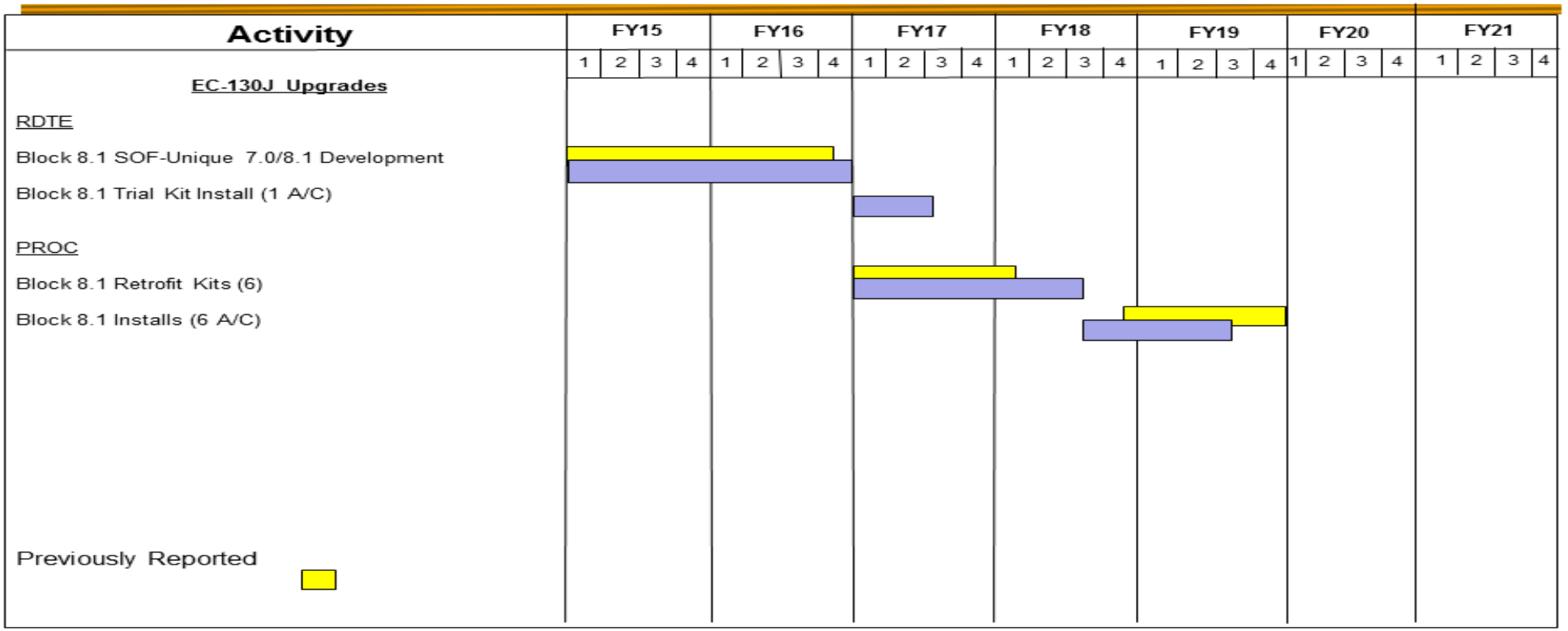

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

ESA For MC-130H Schedule

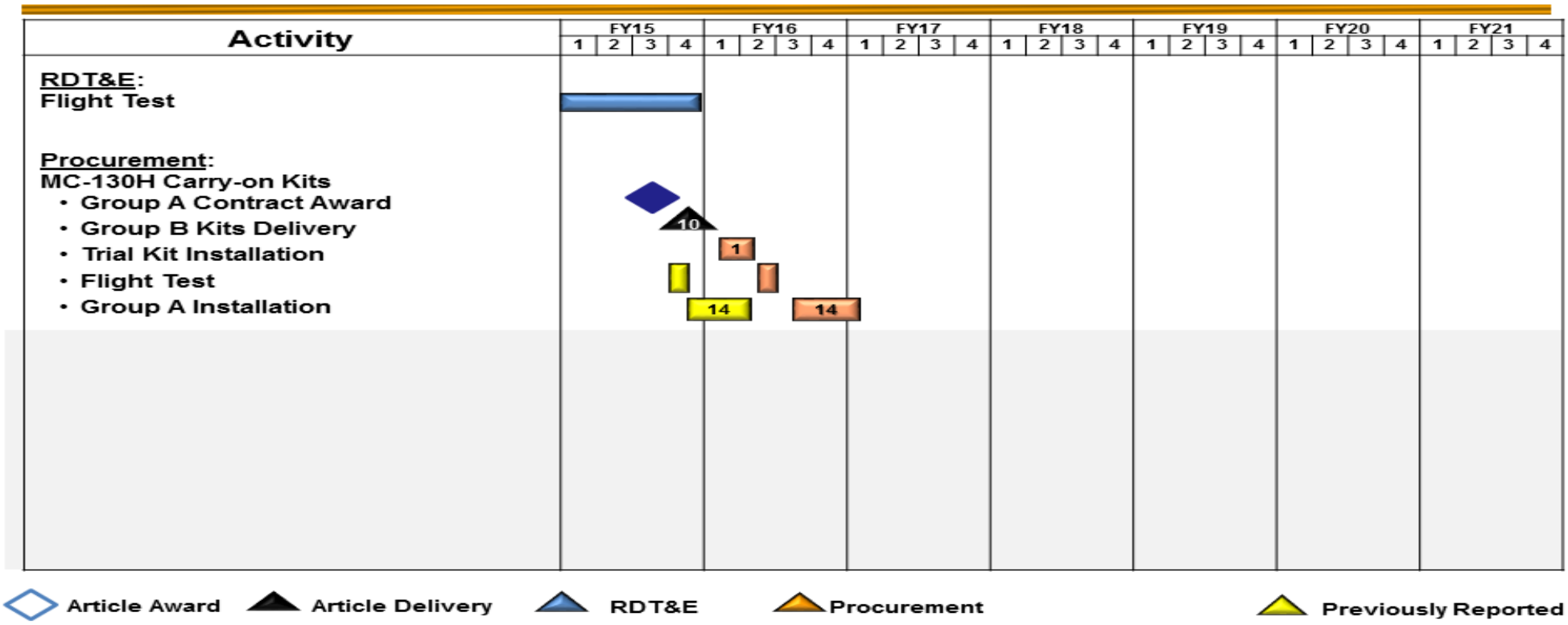

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

EW RFCM Schedule

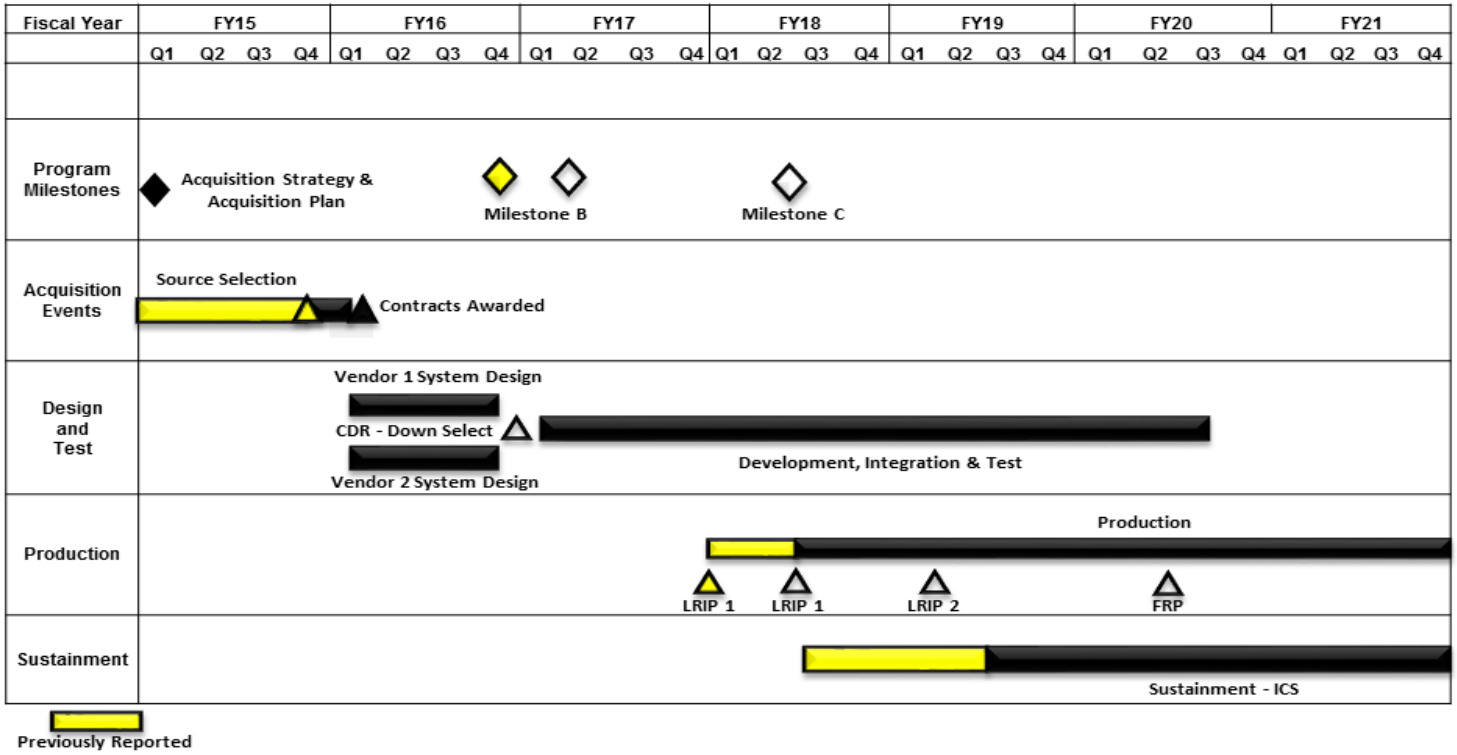

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

AC-130J/PSP Integrated Schedule

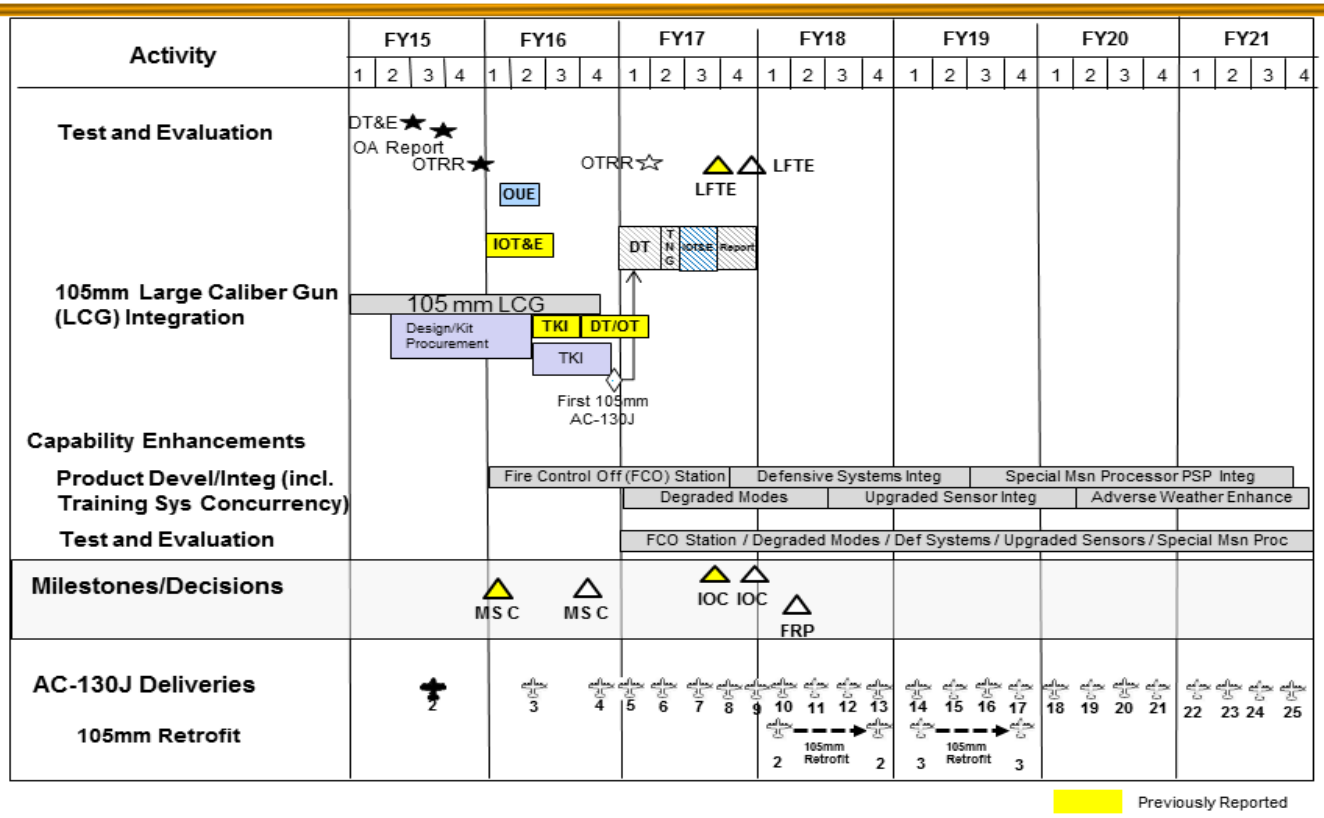

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

C-130 Terrain Following (TF) Radar System Schedule

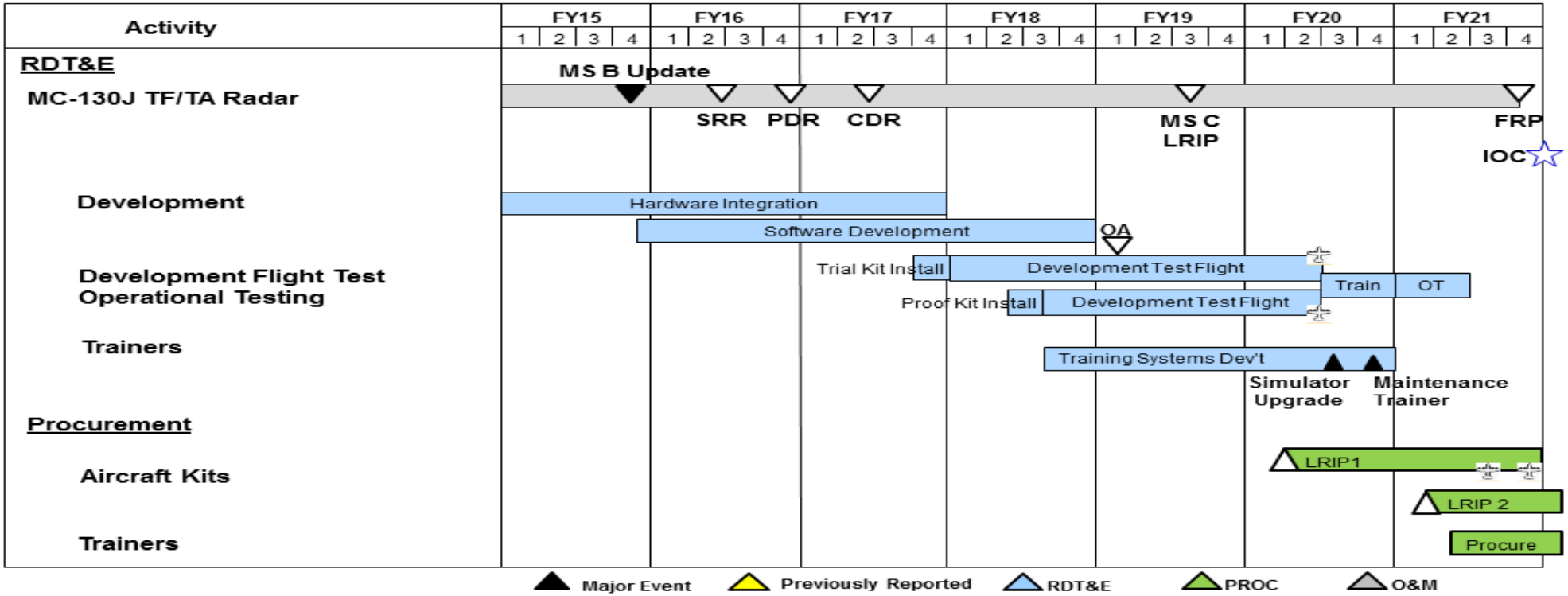

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Silent Knight Radar Schedule

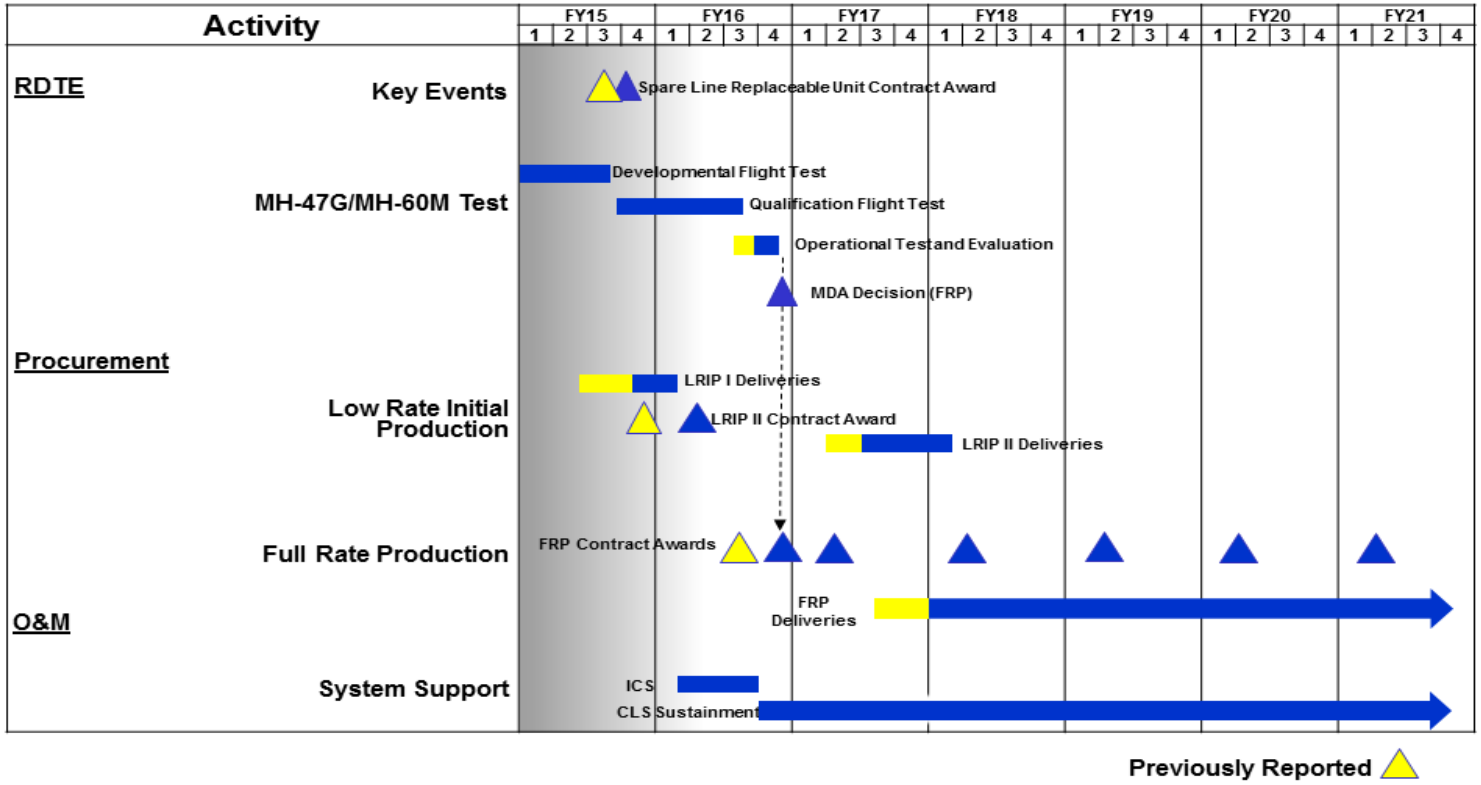

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

EC-130J Commando SOLO Schedule

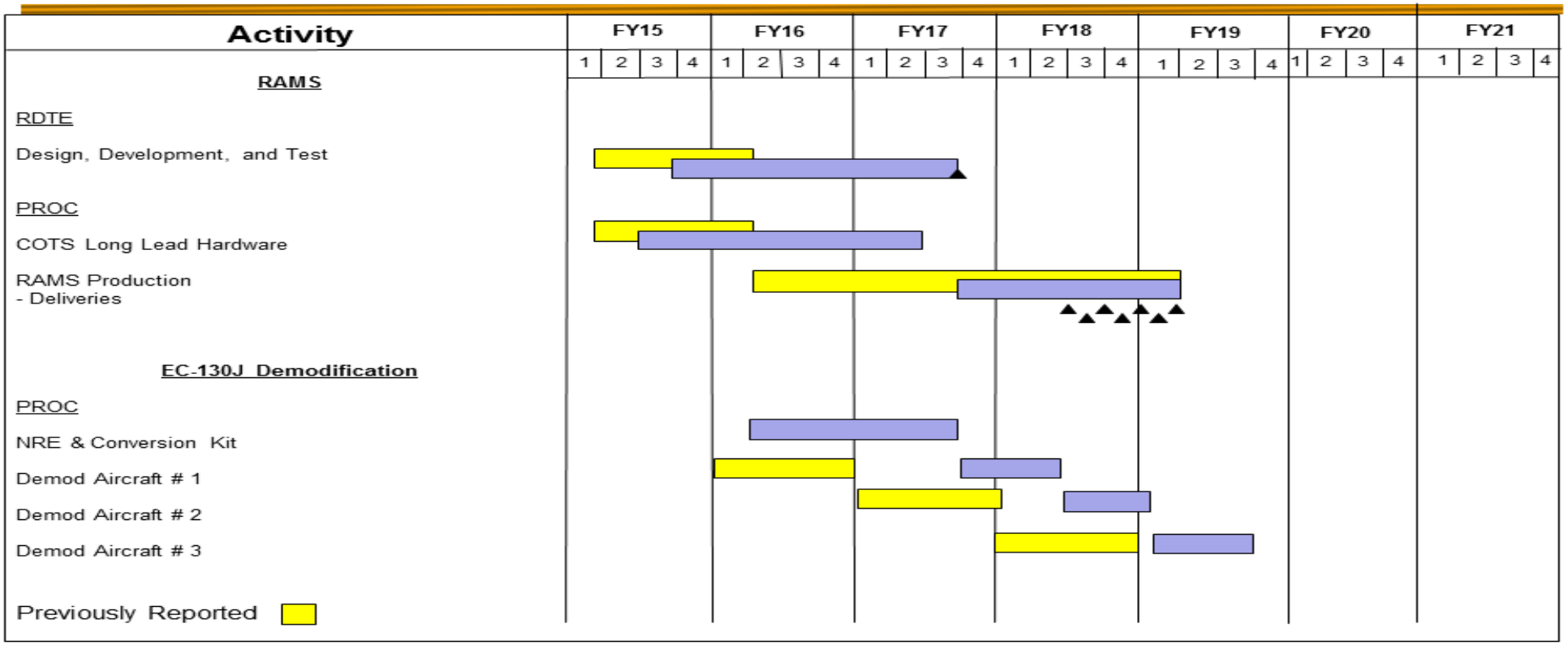

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

ISR Payload

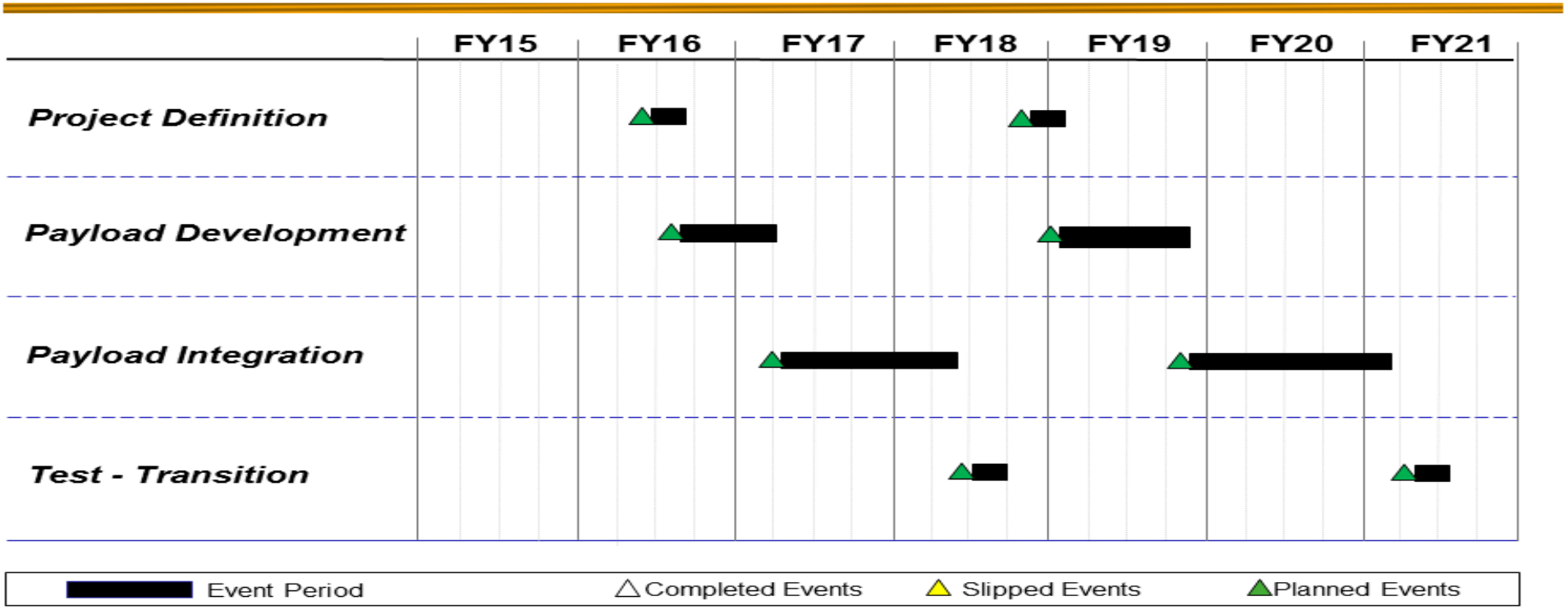

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
EC-130J Upgrades				
Software Development	1	2015	3	2017
Enhanced Situational Awareness for MC-130H				
Development, Integration, and Testing	1	2015	4	2016
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)				
Development, Integration, and Testing	1	2015	3	2020
Precision Strike Package (PSP) for SOF				
PSP for SOF Development, Integration, and Testing	1	2015	4	2021
PSP Large Caliber Gun Development, Integration, and Testing	2	2015	1	2018
C-130 Terrain Following (TF) Radar System				
Software Developmental	4	2015	4	2018
Development Testing	1	2018	3	2020
Operational Testing	1	2021	3	2021
SOF Common Terrain Following/Terrain Avoidance Radar				
Developmental / Qualification Testing	1	2015	2	2016
Operational Testing	2	2016	3	2016
EC-130J Commando Solo				
Development, Integration, and Testing	3	2015	4	2017
Non-Recurring Engineering and Kit Development	2	2016	2	2018
Intelligence, Surveillance, and Reconnnaissance (ISR) Payload				
Phase 1 Development, Integration, and Testing	2	2016	3	2018
Phase 2 Development, Integration, and Testing	3	2018	1	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
SF200: *CV-22*	2.817	0.176	0.000	15.590	-	15.590	14.259	21.635	4.961	0.000	0.000	59.438
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 212

A. Mission Description and Budget Item Justification

The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 provides long range, high speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments supported with rapid prototyping. The funding in this project supports these block increments as well as associated flight test support.

• Block 20: 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, weapons, avionics, survivability, maneuverability, mission deployment, improved reliability and maintainability of the CV platform.

• CV-22 Terrain Following/Terrain Avoidance (TF/TA) Radar: Provides long-range, night/adverse weather, clandestine penetration of medium-to-high threat areas to infill, exfill, and resupply SOF forces. Provides more sustainable/capable radar to replace obsolescing and tech limited APQ-186 terrain following/avoidance radar.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Block 20 ***FY 2015 Accomplishments:*** Conducted flight test for Helmet Mounted Display, additional testing performed to correct Color Helmet Mounted Display deficiencies, and supported testing of SAMS ESA.	0.176	-	-
Title: TF/TA Radar Replacement ***FY 2017 Plans:*** Define systems requirements, develop Initial Capabilities Document, and conduct System Readiness Review. Begin design of TF/TA radar replacement using SOF Common radar APQ-187 (Silent Knight).	-	-	15.590
Accomplishments/Planned Programs Subtotals	0.176	-	15.590

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/1000CV22: *CV-22 SOF Modification*	21.578	33.582	19.008	-	19.008	34.878	23.124	21.336	21.763	Continuing	Continuing
• PROC/V022A0: *Aircraft Procurement CV-22 (MYP)*	15.000	-	-	-	-	-	-	-	-	0.000	4,258.516
• RDT&E1/0401318F: *RDT&E, USAF*	38.719	36.576	22.369	-	22.369	14.324	14.595	14.856	15.123	132.903	289.465
• RDT&E/0604262N: *V-22 RDT&E, N BA-05*	56.336	87.918	160.288	-	160.288	144.153	96.906	64.495	67.781	199.106	9,956.602

Remarks

D. Acquisition Strategy

The CV-22 program is managed by the Navy V-22 Joint Program Office (NAVAIRSYSCOM PMA-275). This ensures that the CV-22 changes are incorporated into the ongoing V-22 production line with minimum impact. Funding for the baseline CV-22 Engineering Manufacturing and Development, known as Block 0, is embedded in the Navy budget. Block 20 and subsequent block upgrades are planned to follow the same acquisition strategy, with NAVAIRSYSCOM PMA-275 ensuring the integration of SOF-unique systems with the ongoing basic vehicle improvements supporting both the CV-22 and the Marine Corps MV-22.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 20	SS/ Various	Bell-Boeing; 413FLTS : Amarillo, Tx; Fort Worth, TX	0.881	0.176	Mar 2015	-		-		-		-	0.000	1.057	-
Terrain Following/ Terrain Avoidance Radar Replacement	SS/ Various	Raytheon : McKinney, TX	-	-		-		15.590	May 2017	-		15.590	Continuing	Continuing	-
		Subtotal	0.881	0.176		-		15.590		-		15.590	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year	Various	Various : Various	1.936	-		-		-		-		-	0.000	1.936	-
		Subtotal	1.936	-		-		-		-		-	0.000	1.936	-

	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.817	0.176		0.000		15.590		-		15.590	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

CV-22 Schedule

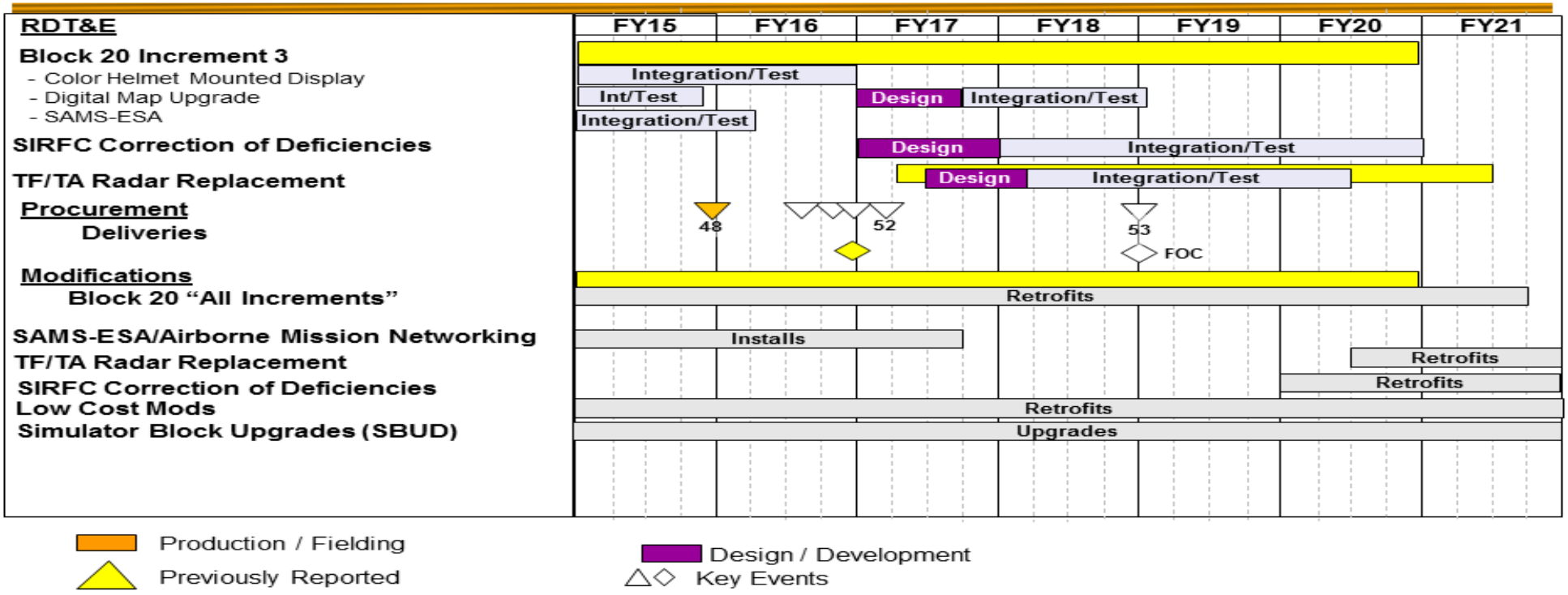

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CV-22				
Block 20 Development/Test	1	2015	1	2017
TF/TA Radar Replacement	3	2017	2	2021
SAMS - ESA Test	1	2015	3	2015

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S750 / *Mission Training and Preparation Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S750: *Mission Training and Preparation Systems*	4.696	8.141	7.052	7.890	-	7.890	8.181	8.252	8.309	9.408	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 Force (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.

Special Operations Mission Planning and Execution (SOMPE) 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. The SOMPE project 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 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 USSOCOM Headquarters, Theater Special Operations Commands, Joint Special Operations Task Forces, Joint Special Operations Aviation Components, SOF warfighters, and SOF warfighter platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SOMPE	8.141	7.052	7.890
FY 2015 Accomplishments: Continued required development of software applications to address SOF-unique aviation, ground and maritime mission planning requirements, (to include tablets, smart phones, etc.) data transfer software from mission planning systems to SOF helicopters, airplanes, and simulator/rehearsal systems, and automated performance models and performance prediction software. Continued testing of mission planning, data transfer and performance software.			
FY 2016 Plans: Continue required development of software applications to address 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 testing of mission planning, data			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
transfer and performance software. Continue development of software applications for smaller mobile computer devices (tablets, smart phones, etc). ***FY 2017 Plans:*** Continues required development of software applications to address 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. Continues testing of mission planning, data transfer and performance software. Continues development of software applications for smaller mobile computer devices (tablets, smart phones, etc).			
Accomplishments/Planned Programs Subtotals	8.141	7.052	7.890

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

SOMPE comprises multiple mission planning software development contracts awarded annually to developers for each project effort. Acquisition strategies depend on the type of development effort. For minor software development projects, contracts may be awarded as sole source acquisitions from existing contract vehicles. For major software development projects, contracts may be awarded as limited or full and open competition acquisitions. Individual acquisition strategies are developed as the scope of software development projects are identified and defined.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S750 / *Mission Training and Preparation Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Special Operations Mission Planning and Execution (SOMPE) Software Development and Integration	MIPR	Various : Various	3.999	6.454	Jan 2015	5.609	Jan 2016	6.405	Jan 2017	-		6.405	Continuing	Continuing	-
		Subtotal	3.999	6.454		5.609		6.405		-		6.405	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	MIPR	Special Operations Mission Planning Office : Fort Eustis, VA	0.256	0.461	Feb 2015	0.360	Feb 2016	0.371	Feb 2017	-		0.371	Continuing	Continuing	-
		Subtotal	0.256	0.461		0.360		0.371		-		0.371	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	C/CPFF	Wyle-CAS : Huntsville, AL	0.441	1.226	Jan 2015	1.083	Jan 2016	1.114	Jan 2017	-		1.114	Continuing	Continuing	-
		Subtotal	0.441	1.226		1.083		1.114		-		1.114	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.696	8.141		7.052		7.890		-		7.890	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

SOMPE Schedule

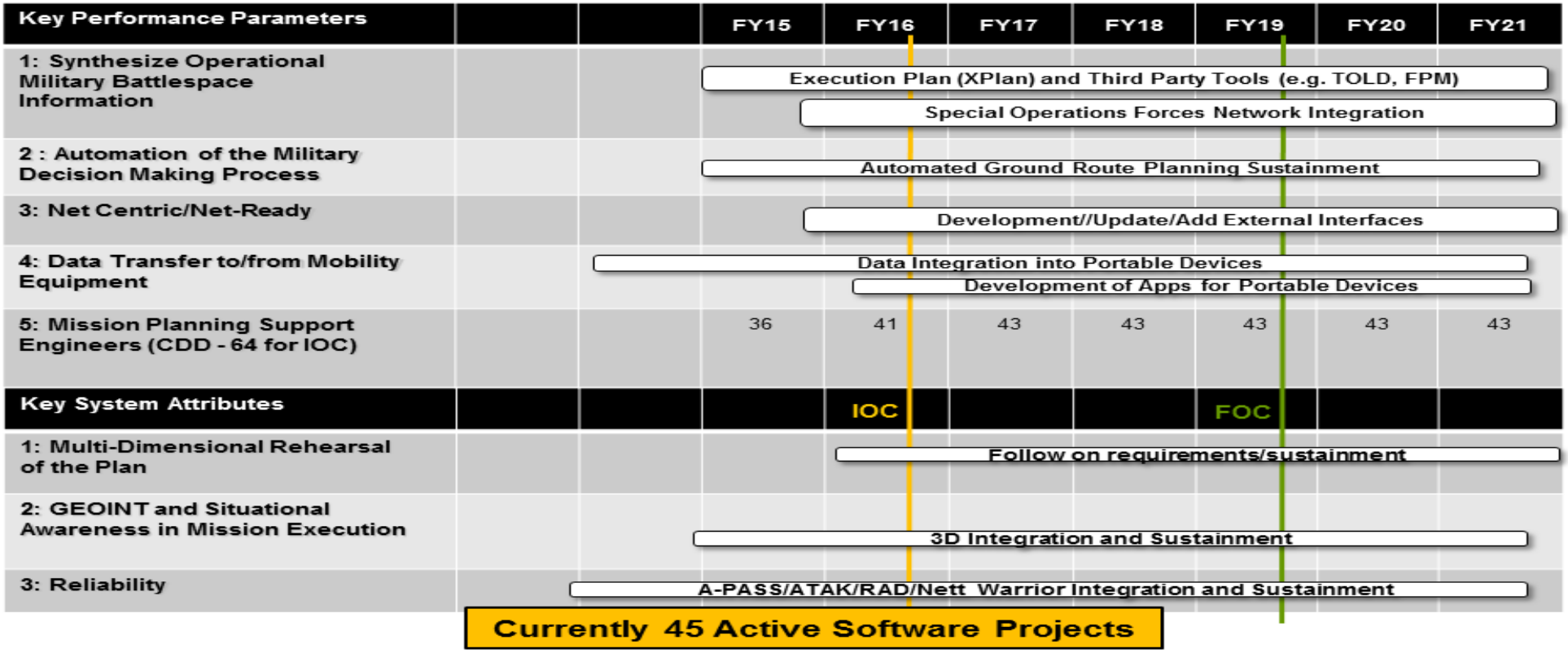

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Special Operations Mission Planning and Execution (SOMPE) Software				
Software Development	1	2015	4	2021
Development Support	1	2015	4	2021
Test & Evaluation	1	2015	4	2021
Integration	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S875: *AC/MC-130J*	9.915	17.874	7.398	7.964	-	7.964	8.650	12.605	24.127	53.408	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 MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II, AC-130H Spectre, AC-130W Stinger II, and AC-130U Spooky airframes. 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 Gunship configuration. These platforms perform close air support (CAS), air interdiction, and armed reconnaissance missions and clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; and airdrop leaflets, small special operations teams, resupply bundles and combat rubber raiding craft. Additional capabilities include low-level navigation and in-flight refueling. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. USSOCOM will then employ an incremental upgrade approach to incorporate SOF capabilities onto the Air Force-provided aircraft.

Conducts development, integration, and testing of aircraft enhancements to meet SOF-unique mission requirements. Enhancements include, but are not limited to, SOF communications, mission processors, aircraft performance enhancements, enhanced situational awareness (ESA), electronic warfare and survivability systems, and other SOF mission kits. Provides PSP aircraft infrastructure development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: MC-130J Increment 3	2.183	6.118	7.556
FY 2015 Accomplishments: Continued SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
FY 2016 Plans: Continue SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
FY 2017 Plans: Continues SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
Title: ESA (Airborne Mission Networking)	1.650	0.705	-
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continued ESA integration and test. ***FY 2016 Plans:*** Continue ESA integration and test.			
Title: AC-130J ***FY 2015 Accomplishments:*** Continued development and tested aircraft modification designs for PSP kit installation. ***FY 2016 Plans:*** Continue development and tested aircraft modification designs for PSP kit installation. ***FY 2017 Plans:*** Continues development and tested aircraft modification designs for PSP kit installation.	14.041	0.575	0.408
Accomplishments/Planned Programs Subtotals	17.874	7.398	7.964

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/2012C130J: *AC/MC-130J*	73.947	53.368	73.548	-	73.548	172.372	167.341	155.828	117.463	Continuing	Continuing
• PROC/1202PSP: *Precision Strike Package*	131.929	204.105	213.122	-	213.122	191.880	195.476	200.478	204.983	Continuing	Continuing

Remarks

D. Acquisition Strategy

The basic AC/MC-130J aircraft will be acquired under the United States Air Force HC/MC-130J Recapitalization procurement program. USSOCOM will fund development, integration, and testing of capability enhancements for SOF-unique mission equipment using an incremental acquisition strategy. Multiple contract awards.

ESA: Integrate Government/Commercial off-the-shelf communications and computing hardware and software for enhanced situational awareness systems.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J Increment 3	C/Various	Lockheed Martin : Atlanta, GA	5.412	1.793	Mar 2015	5.694	Mar 2016	7.078	Mar 2017	-		7.078	Continuing	Continuing	-
Enhanced Situational Awareness (Airborne Mission Networking)	C/Various	Lockheed Martin : Lexington, KY	0.631	1.650	Dec 2014	-		-		-		-	0.000	2.281	-
AC-130J	C/Various	Lockheed Martin : Lexington, KY	3.872	14.041	Jan 2015	-		-		-		-	0.000	17.913	-
		Subtotal	9.915	17.484		5.694		7.078		-		7.078	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J Increment 3	C/Various	Lockheed Martin : Atlanta, GA	-	0.390	Mar 2015	0.424	Mar 2016	0.478	Mar 2017	-		0.478	Continuing	Continuing	-
Enhanced Situational Awareness (Airborne Mission Networking)	C/Various	Lockheed Martin : Atlanta, GA	-	-		0.705	Jan 2016	-		-		-	0.000	0.705	-
AC-130J	C/Various	Lockheed Martin : Atlanta, GA	-	-		0.575	Mar 2016	0.408	Jan 2017	-		0.408	Continuing	Continuing	-
		Subtotal	-	0.390		1.704		0.886		-		0.886	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.915	17.874		7.398		7.964		-		7.964	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

MC-130J Schedule

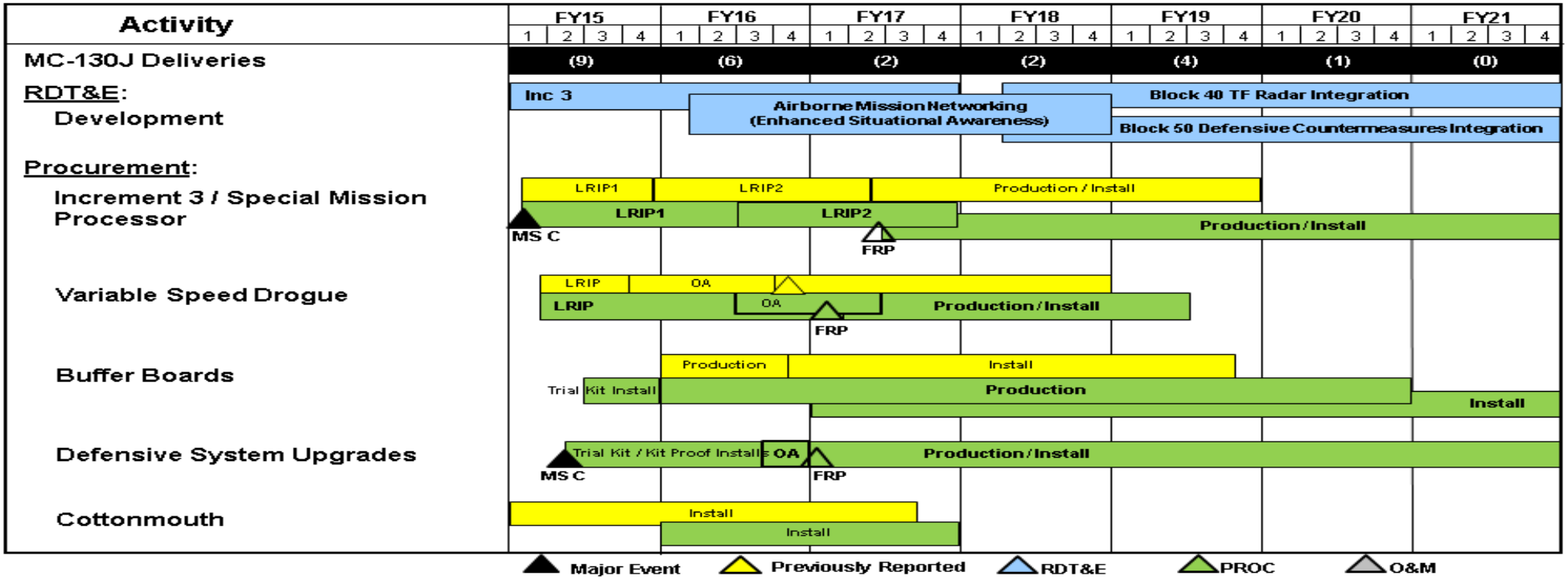

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

AC-130J/PSP Integrated Schedule

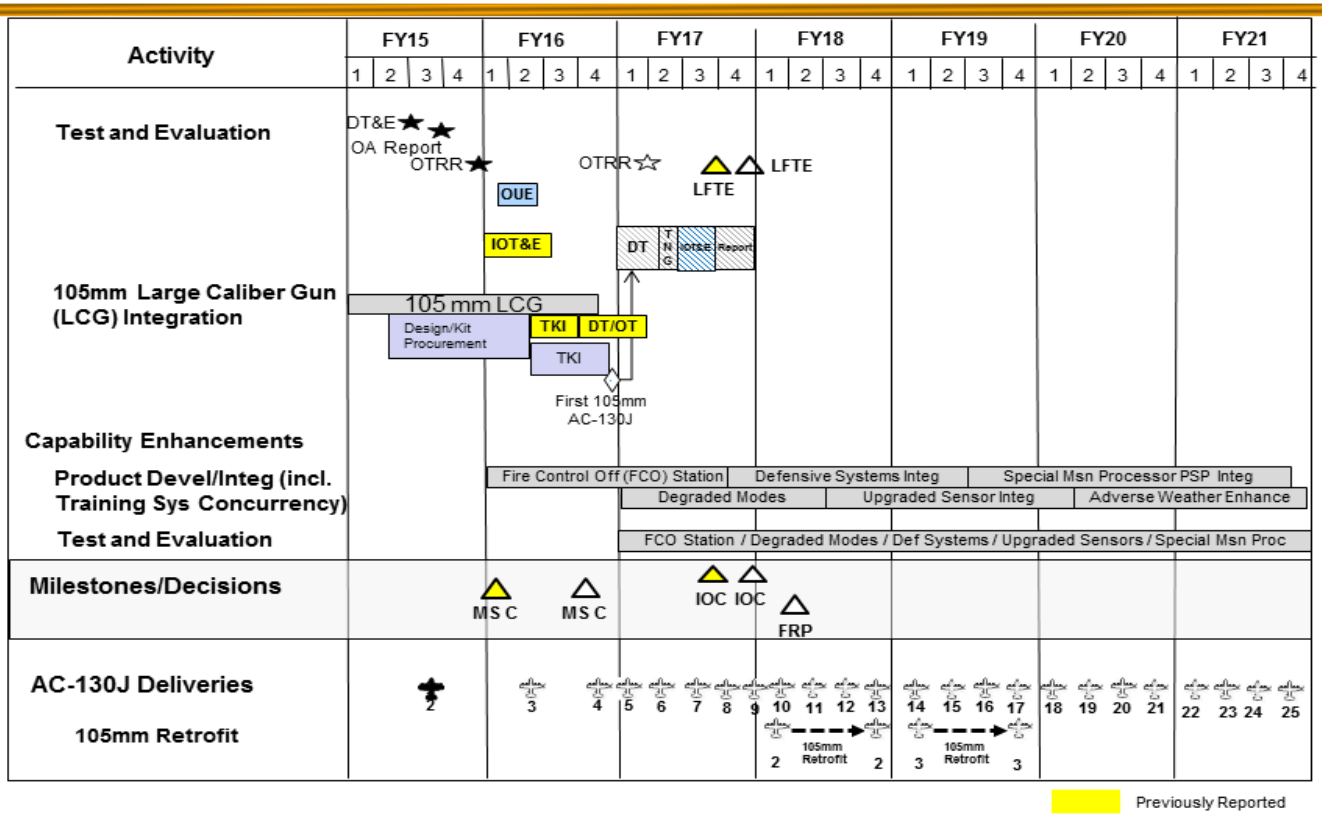

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MC-130J Increment 3				
Development/Test	1	2015	4	2018
Enhanced Situational Awareness (ESA) (Airborne Mission Networking)				
Development/Test	1	2015	4	2016
AC-130J				
Development/Test	2	2015	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) D615 / *Rotary Wing Aviation*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
D615: *Rotary Wing Aviation*	27.577	61.519	62.654	36.040	-	36.040	27.013	24.951	19.523	13.872	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops/upgrades Special Operation Forces (SOF) rotary wing aircraft systems that operate in increasingly hostile environments. This project includes modifications to Aircraft Survivability Equipment (ASE) and weapons systems to counter rapidly merging threats, improved lethality and enhanced aircraft self-protection. Rotary wing aircraft supported by this project include: A/MH-6M, MH-60M, and MH-47G. These aircraft provide aviation support to SOF in world-wide contingency operations and low-intensity conflicts and they must be capable of rapid deployment, undetected penetration of hostile areas, and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters. Sub-projects include:

• A/MH-6M Block 3.0 Upgrade is necessary to restore structural, performance, and safety margins for the aircrews. An airframe structural modification and/or airframe replacement will address recurring structural failures due to high intensity, high gross weight operations, and a decade of battle damage. A main/tail rotor drive train and engine control improvement efforts will reduce airframe loads and restore sufficient safety and performance margins. An avionics upgrade Non-Developmental Item/Commercial Off-the-Shelf (NDI/COTS) will replace obsolescent components and provide improved battlefield situational awareness to the aircrews and customers necessary to support time sensitive mission requirements. This upgrade is critical in keeping the A/MH-6M aircraft operational through FY 2020 and beyond or until a suitable replacement aircraft is available. The non-recurring effort supports development, fabrication of test hardware, qualification of components and systems, and data items to support issuance of Government airworthiness releases for structural and software modifications. This sub-project includes modifications to ASE and weapons systems to counter rapidly merging threats, munitions for testing and enhanced aircraft self-protection.

• MH-60M Modification and Upgrades develops technologies to improve safety of the MH-60 and decrease operational costs. Efforts include, but are not limited to DOD MH-60 engineering changes, product improvements to SOF unique equipment and munitions during testing. This sub-project also includes modifications to ASE and weapons systems to counter rapidly emerging threats, improve lethality and enhance aircraft protection. The FY 2017 funding request was reduced by $2.000 million to account for the prior year execution balances.

• MH-60M Block Upgrades provides the development, integration, and qualification efforts on the MH-60 helicopter to include flight test support, engineering analysis, documentation, and airworthiness substantiation.

• Degraded Visual Environment (DVE) solution will fuse information from currently fielded aircraft sensors with emerging technology to display real-time reference points, obstacles, and landing zone information to the aviator. 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 such as dirt and snow. This program addresses SOF-unique requirements for rapid fielding and weight limitations, capitalizes on the unique skills of the SOF aviator while integrating with SOF-unique avionics, and leverages to the maximum extent possible, the use of existing sensors on SOF aircraft.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
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 (FVL) program provides for the long-term replacement of an aging fleet of aircraft and provides a significant increase in range, speed, payload, survivability, reliability, and maintainability of vertical lift aircraft to meet emerging mission requirements. USSOCOM will participate in the service-common development of a joint future vertical lift aircraft by injecting USSOCOM requirements and equities into the initial development and design efforts to minimize SOF-peculiar modifications to the common aircraft.

• Infrared Countermeasure (IRCM) program provides a low Size, Weight, and Power (SWaP) 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 develop, integrate, qualify, and test a complete lightweight IRCM system to include a missile warning system, countermeasure capability and infrared suppressor. The A/MH-6 is the only tactical aircraft in the SOF inventory without protection from infrared guided and other advanced Man Portable Air Defense missiles.

• MH-47G Modifications and Upgrades program develops technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include, but not limited to the Active Parallel Actuator System (APAS), Active Noise Cancellation (ANC), and Engine Barrier Filter. This sub-project also includes modifications to ASE and weapons systems to counter rapid emerging threats and enhance aircraft self-protection. The FY 2017 funding request was reduced by $5.000 million to account for the availability of prior year execution balances.

• Mission Processor Upgrade (MPU) program provides for non-recurring engineering (NRE), systems engineering/testing, and future aircraft architecture studies that support the replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA). Upgrading all internal processors increases the processing power to support critical functionality and emerging technologies that will be integrated into the Common Avionics Architecture System (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) Situational Awareness for Safe Aircraft Recovery provides passive survivability for flight operations in all weather conditions by providing three-dimensional displays with flight path guidance to increase battle space awareness in zero-visibility conditions; (3) 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 levels, and night conditions. The FY 2017 funding request was reduced by $3.000 million to account for the availability of prior year execution balances.

• Next Generation Forward Looking Infrared (NGFLIR) program improves targeting, tracking, and aircrew situational awareness on ARSOA platforms. This program mitigates obsolescence and increasing functionality on the light and heavy assault platforms within the ARSOA fleet.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: A/MH-6M Block 3.0 Upgrade	19.388	20.010	12.890
FY 2015 Accomplishments: Continued development of cockpit upgrades, improved rotor systems, and upgrades to airframe. Continued component level qualification testing and Contract Data Requirements List development/submittals. Initiated system level qualification testing.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continue system level qualification of improved rotor system, avionics upgrade software development, qualifications and initiates Airworthiness and Flight Characteristics testing efforts. ***FY 2017 Plans:*** Continues avionics software development, qualification and Airworthiness and Flight Characteristics testing efforts.			
Title: MH-60M Modifications and Upgrades ***FY 2017 Plans:*** Begins integration and testing of technologies to improve safety and decrease operational costs to include aircraft survivability equipment, weapons systems improvement and munitions during testing.	-	-	0.677
Title: MH-60M Block Upgrades ***FY 2015 Accomplishments:*** Continued flight and qualification testing for the MH-60M Block Upgrades ***FY 2016 Plans:*** Complete integration and flight qualification for the MH-60M Block Upgrades.	12.443	11.966	-
Title: DVE ***FY 2015 Accomplishments:*** Continued Phase II DVE sensor development culminating in flight test of two candidate technical solutions. ***FY 2016 Plans:*** Continue integration and testing of the selected DVE technical solution. ***FY 2017 Plans:*** Completes the qualification and testing of the DVE solution.	16.426	13.465	9.462
Title: FVL ***FY 2015 Accomplishments:*** Participated in the Joint Integrated Product Team material solution analysis with a focus on injecting SOF requirements into the baseline planning and requirements that provides a minimum of SOF-peculiar modifications. ***FY 2016 Plans:*** Continue participation in providing guidance and infrastructure necessary for FVL to implement a mission systems architecture that enables the integration of SOF capabilities into the aircraft. ***FY 2017 Plans:***	1.096	0.782	0.938

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continues participation in providing guidance and infrastructure necessary for FVL to implement a mission systems architecture that enables the integration of SOF capabilities into the aircraft			
Title: IRCM ***FY 2015 Accomplishments:*** Began development, integration, and qualification testing of a missile warning and lightweight IRCM systems for A/MH-6 aircraft. ***FY 2016 Plans:*** Continue development, integration, and qualification testing of missile warning and lightweight IRCM systems for the A/MH-6 aircraft. ***FY 2017 Plans:*** Continues integration and qualification testing of missile warning and lightweight IRCM systems for the A/MH-6 aircraft.	2.413	3.450	2.498
Title: MH-47 Modifications and Upgrades ***FY 2015 Accomplishments:*** Began development of APAS and the Engine Barrier Filter for the MH-47G. ***FY 2016 Plans:*** Continue development of APAS and the Engine Barrier Filter for MH-47G. ***FY 2017 Plans:*** Continues APAS development and completes the development of the Engine Barrier Filter for MH-47G.	6.773	11.753	8.501
Title: MPU ***FY 2016 Plans:*** Begin development and testing of replacement mission and video processors for the ARSOA platforms. ***FY 2017 Plans:*** Continues development and testing of replacement mission and video processors for the ARSOA platforms.	-	0.232	1.074
Title: NGFLIR ***FY 2015 Accomplishments:*** Began integration of a life-cycle replacement for the Q2V2 Electro-Optical Sensory System (EOSS) on the MH-60M Defensive Armed Penetrator (DAP). ***FY 2016 Plans:*** Complete integration and testing of a life-cycle replacement for the Q2V2 EOSS on the MH-60M DAP.	2.980	0.996	-
Accomplishments/Planned Programs Subtotals	61.519	62.654	36.040

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0201RWUPGR: *Rotary Wing Upgrades and Sustainment*	163.006	135.985	150.396	-	150.396	169.686	147.659	139.536	144.361	Continuing	Continuing

Remarks

D. Acquisition Strategy

• A/MH-6M Block 3.0 Upgrade comprises three major efforts: airframe/rotors, engine control, and cockpit. The airframe/rotors development effort will be a sole-source contract to Boeing, who owns the technical data associated with the A/MH-6 airframe. The engine control work will be performed by Rolls-Royce and Triumph Electronic Control Systems under sole-source contract to Rolls Royce. The cockpit avionics architecture will be developed by Rockwell-Collins. Any new hardware components will be NDI/COTS and will be competitively selected. Airframe modification and integration work will be conducted at the Special Operations Forces Support Activity (SOFSA) by the incumbent contractor.

• MH-60M SOF Modifications and Upgrades supports the systems integration and qualification efforts on the prototype MH-60M helicopter. This includes, but is not limited to, government and contractor flight test support, engineering analysis, documentation, and airworthiness substantiation. Airframe modification and integration work will be conducted at the Special Operations Forces Support Activity (SOFSA) by the incumbent contractor.

• MH-60M Block Upgrades are accomplished for 72 MH-60M base aircraft with various contractors and acquisition vehicles. The SOFSA executes SOF-peculiar upgrade modifications onto the MH-60M base aircraft.

• DVE integrates and qualifies a solution to address a safety of flight issue while flying in degraded visual environments. A competitive source selection process will be conducted for the DVE solution which will procure, integrate, and install components to provide real-time “see through” imagery and heads up display of 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 DOD vertical lift aviation capabilities over the next forty years.

• IRCM develops, integrates, and qualifies a mission configurable Missile Warning System and IRCM capability which does not currently exist at a weight suitable for the A/MH-6 aircraft. Procurement of systems for integration and test will leverage Naval Research Lab IRCM development efforts and contracts. The Government will integrate the systems onto the A/MH-6 utilizing existing aircraft modification contracts.

• 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, ANC and Engine Barrier Filter. The upgrades and modifications mostly consist of Government executed integration, testing, and qualification efforts with some analytical engineering services to be completed.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

• MPU - Data Concentrator Unit (DCU) Modernization NRE will be used to improve analog-to-digital signal processing and reliability, as well as reduce weight. The DCU efforts will be sole-source to Sanmina SCI Corporation, the original equipment manufacturer (OEM) for the DCU. The Future Aircraft Architecture Studies will be competitively awarded.

• NGFLIR utilizes the Common Sensor Payload, an existing Army program of record, as a life-cycle replacement for the Q2V2 EOSS. This effort mainly consists of upgrading the camera from Standard Definition to High Definition utilizing existing Army contracts with the OEM. SOF unique integration on the MH-60M DAP platforms will be accomplished through existing aircraft modification contracts.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) D615 / *Rotary Wing Aviation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
A/MH-6M Block 3.0 Upgrades	C/Various	PM MELB : Ft Eustis, VA	12.420	19.388	Feb 2015	20.010	Nov 2015	12.890	Nov 2016	-		12.890	Continuing	Continuing	-
Degraded Visual Environment (DVE)	C/Various	PM TAPO : Ft Eustis, VA	11.850	16.426	Jan 2015	13.465	Jan 2016	9.462	Jan 2017	-		9.462	Continuing	Continuing	-
Future Verticle Lift (FVL) Cost Benefit Analysis	C/Various	PEO-RW : MacDill AFB, FL	0.481	1.096	Sep 2015	0.782	Feb 2016	0.938	Feb 2017	-		0.938	Continuing	Continuing	-
Infrared Countermeasure (IRCM) Integration Testing	C/Various	PM TAPO : Ft Eustis, VA	0.173	2.413	Aug 2015	3.450	Mar 2016	2.498	Mar 2017	-		2.498	Continuing	Continuing	-
MH-47G Modifications and Upgrades	C/Various	PM TAPO : Eustis, VA	-	6.773	Aug 2015	11.753	Jan 2016	8.501	Jan 2017	-		8.501	Continuing	Continuing	-
Mission Processor Upgrade (MPU)	C/Various	PM TAPO : Eustis, VA	-	-		0.232	Apr 2016	1.074	Apr 2017	-		1.074	Continuing	Continuing	-
Next Generation Foward Looking Infrared (NGFLIR)	C/Various	PM TAPO : Eustis, VA	-	2.980	Oct 2015	0.996	Jan 2016	-		-		-	0.000	3.976	-
		Subtotal	24.924	49.076		50.688		35.363		-		35.363	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M Modification and Upgrades	C/Various	Various : Various	-	-		-		0.677	Dec 2016	-		0.677	Continuing	Continuing	-
MH-60M Block Upgrades Flight Qualification Testing	C/Various	Various : Various	-	12.443	Mar 2015	11.966	Jan 2016	-		-		-	0.000	24.409	-
Prior Years Funding	C/Various	Various : Various	2.653	-		-		-		-		-	0.000	2.653	-
		Subtotal	2.653	12.443		11.966		0.677		-		0.677	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	27.577	61.519		62.654		36.040		-		36.040	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

A/MH-6M Block 3.0 Upgrade Schedule

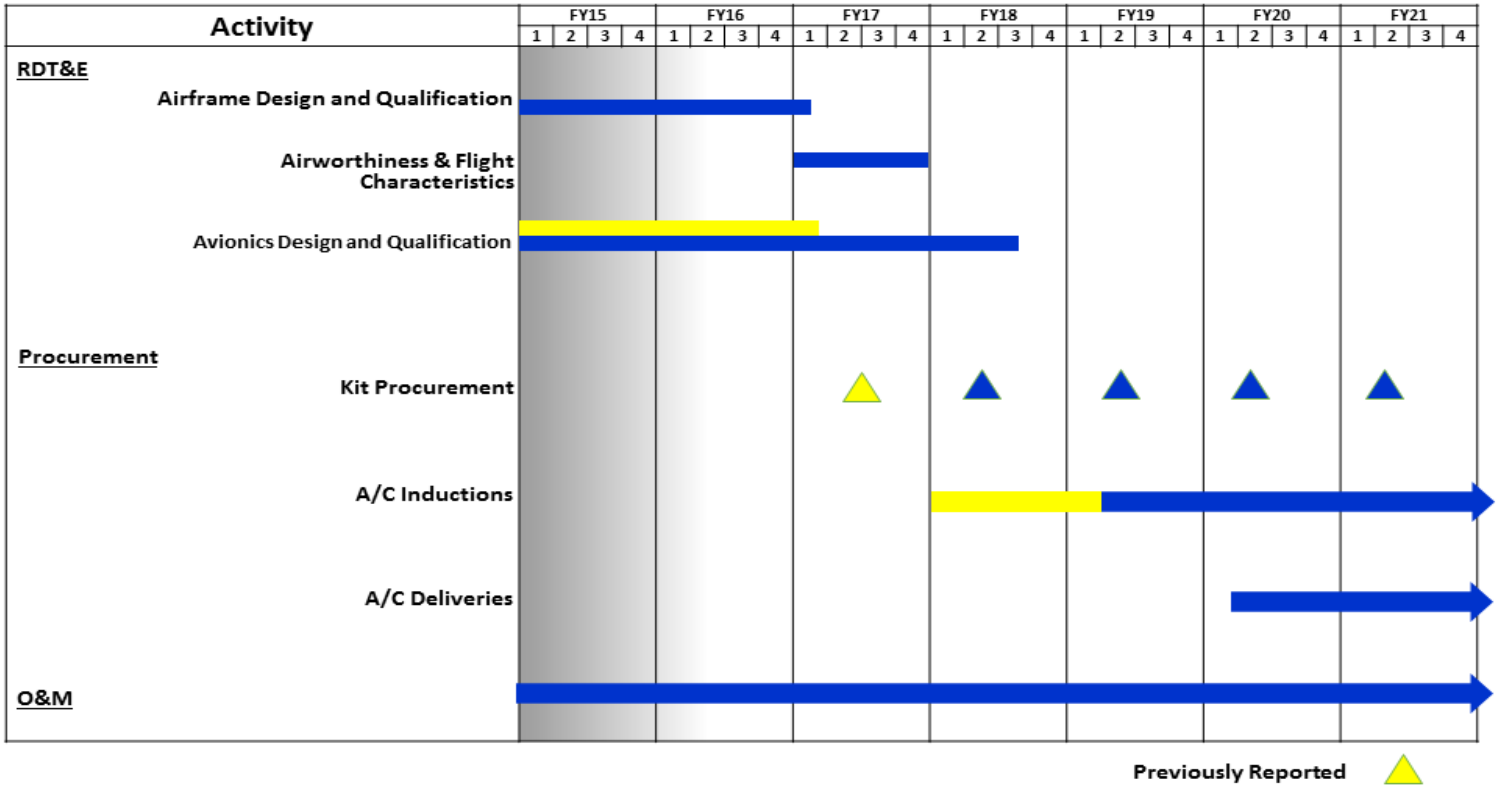

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

MH-60M Block Upgrades Schedule

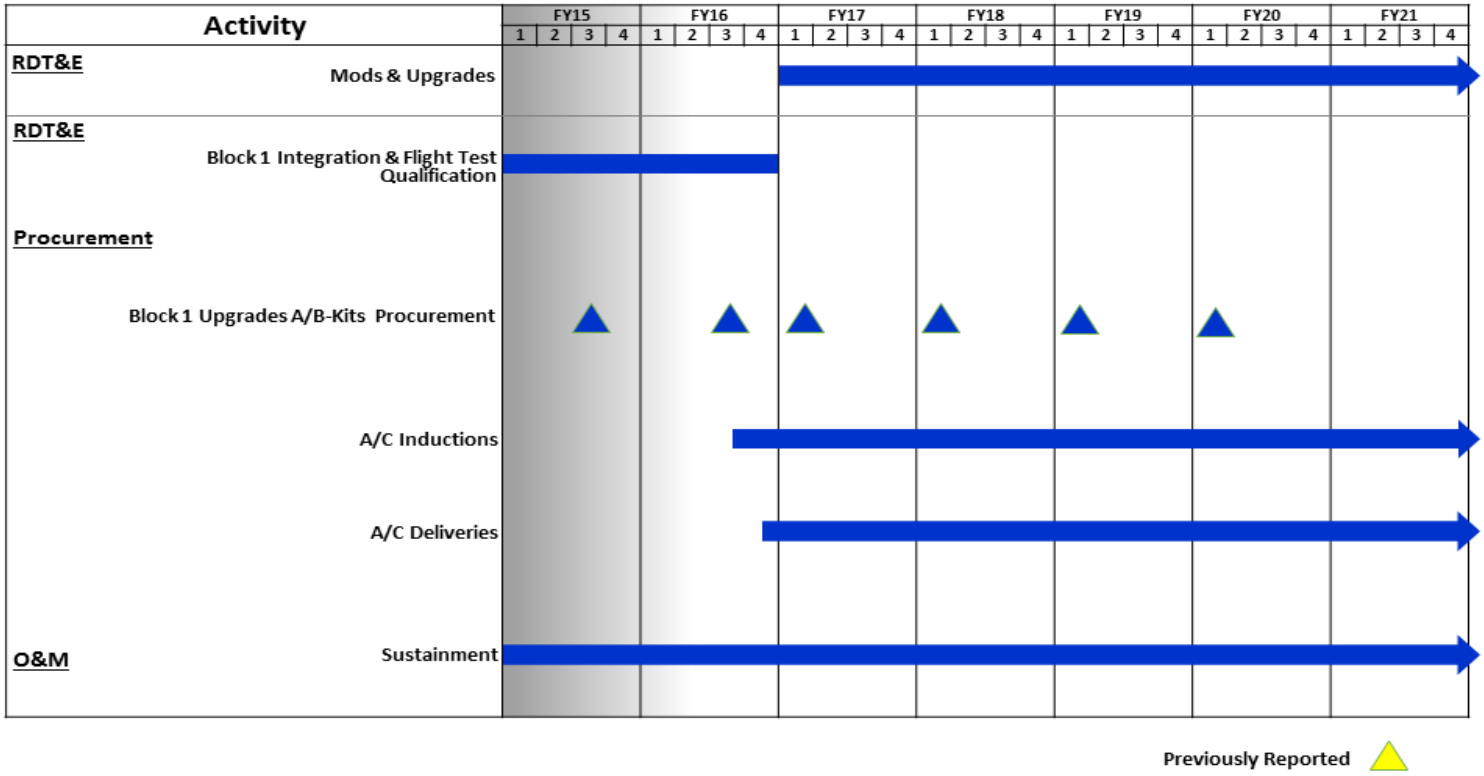

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Degraded Visual Environment Schedule

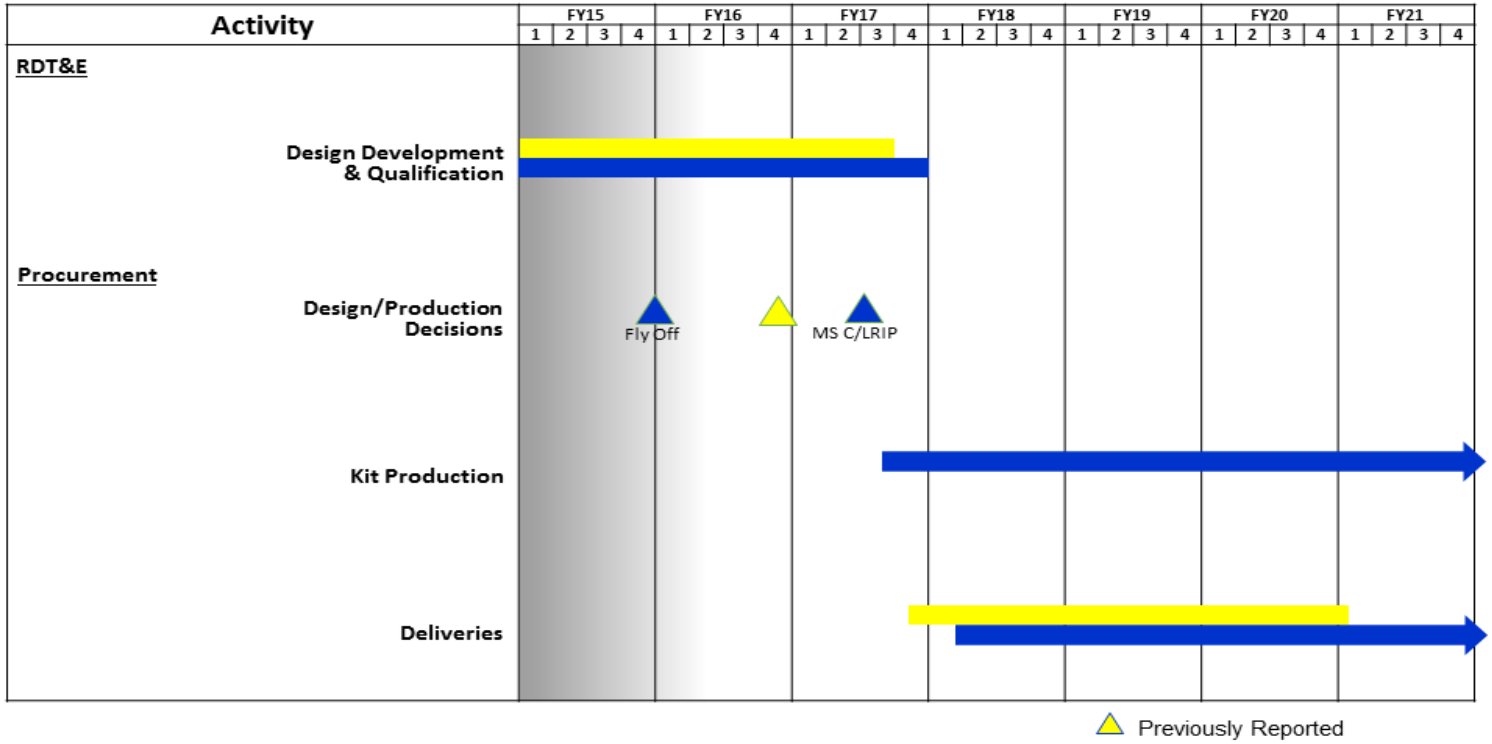

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Future Vertical Lift Schedule

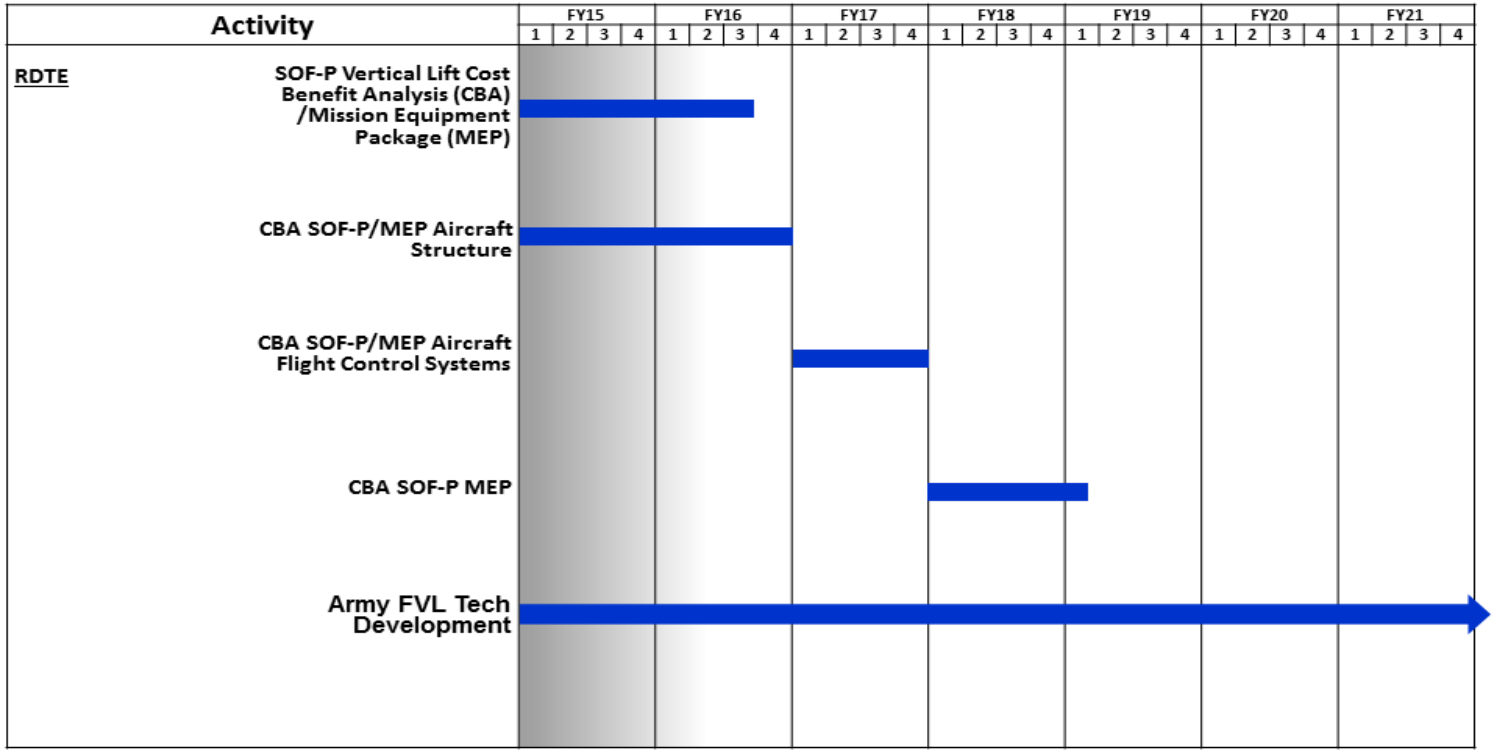

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Infrared Countermeasures Schedule

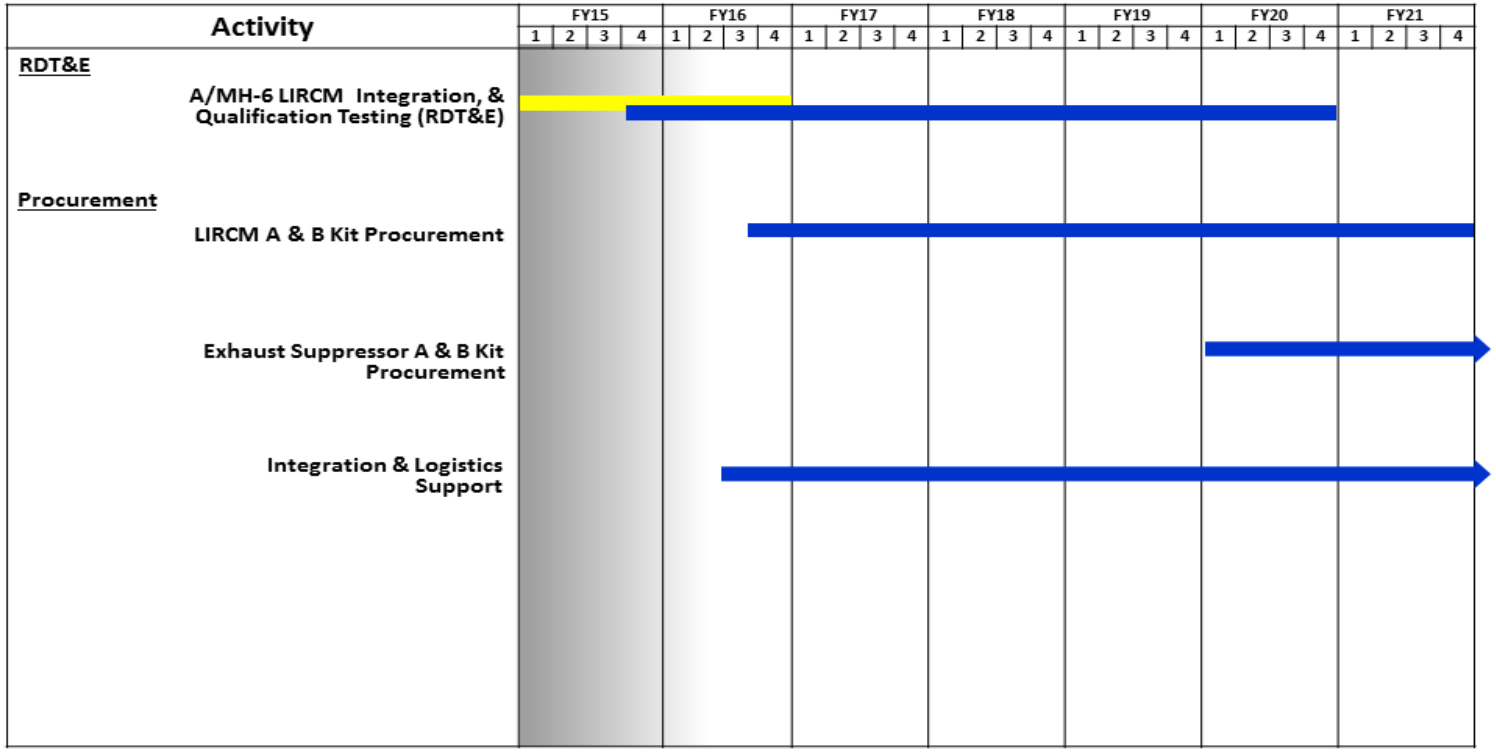

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

MH-47 Modifications & Upgrades Schedule

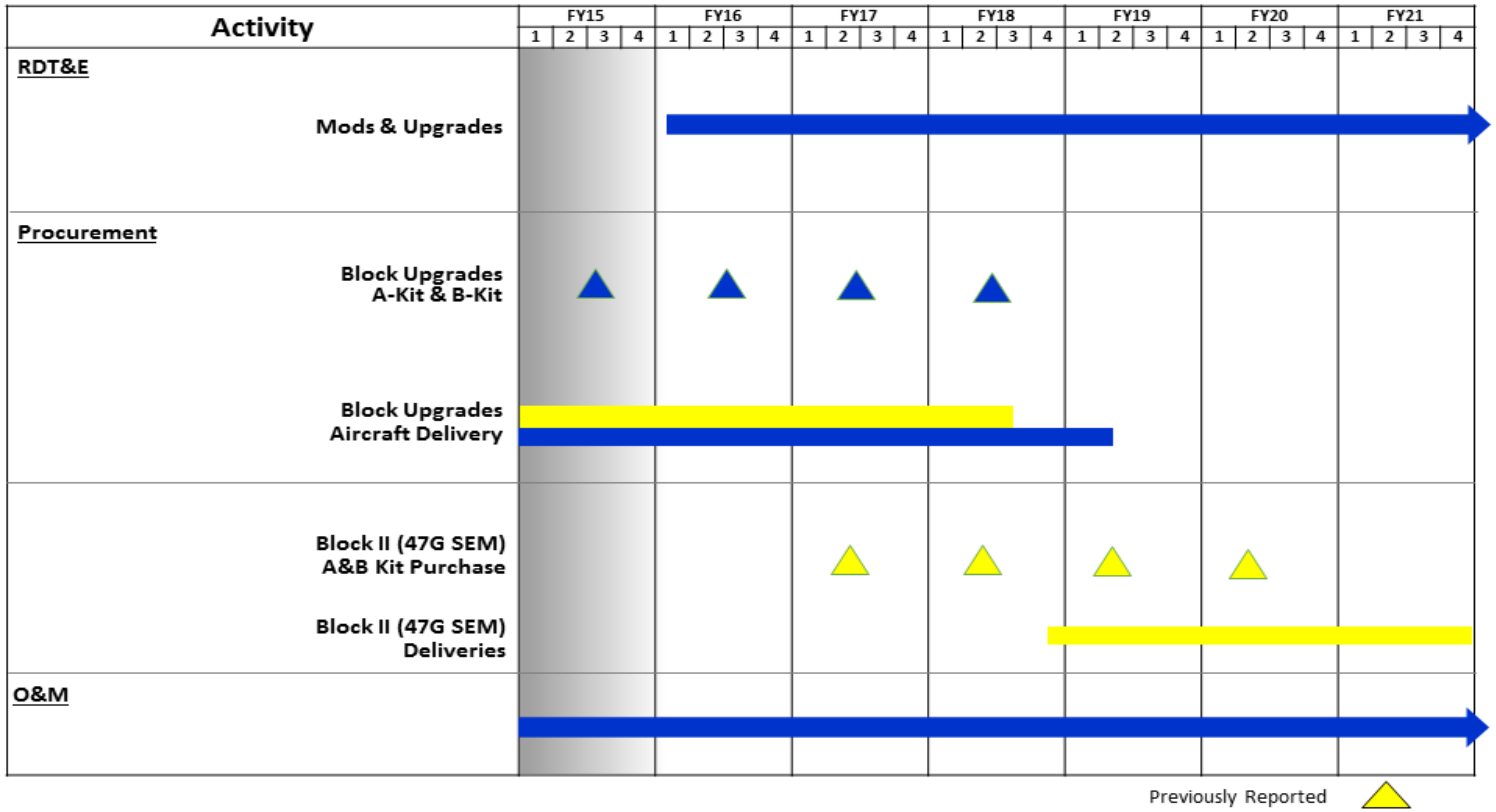

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Mission Processor Upgrades Schedule

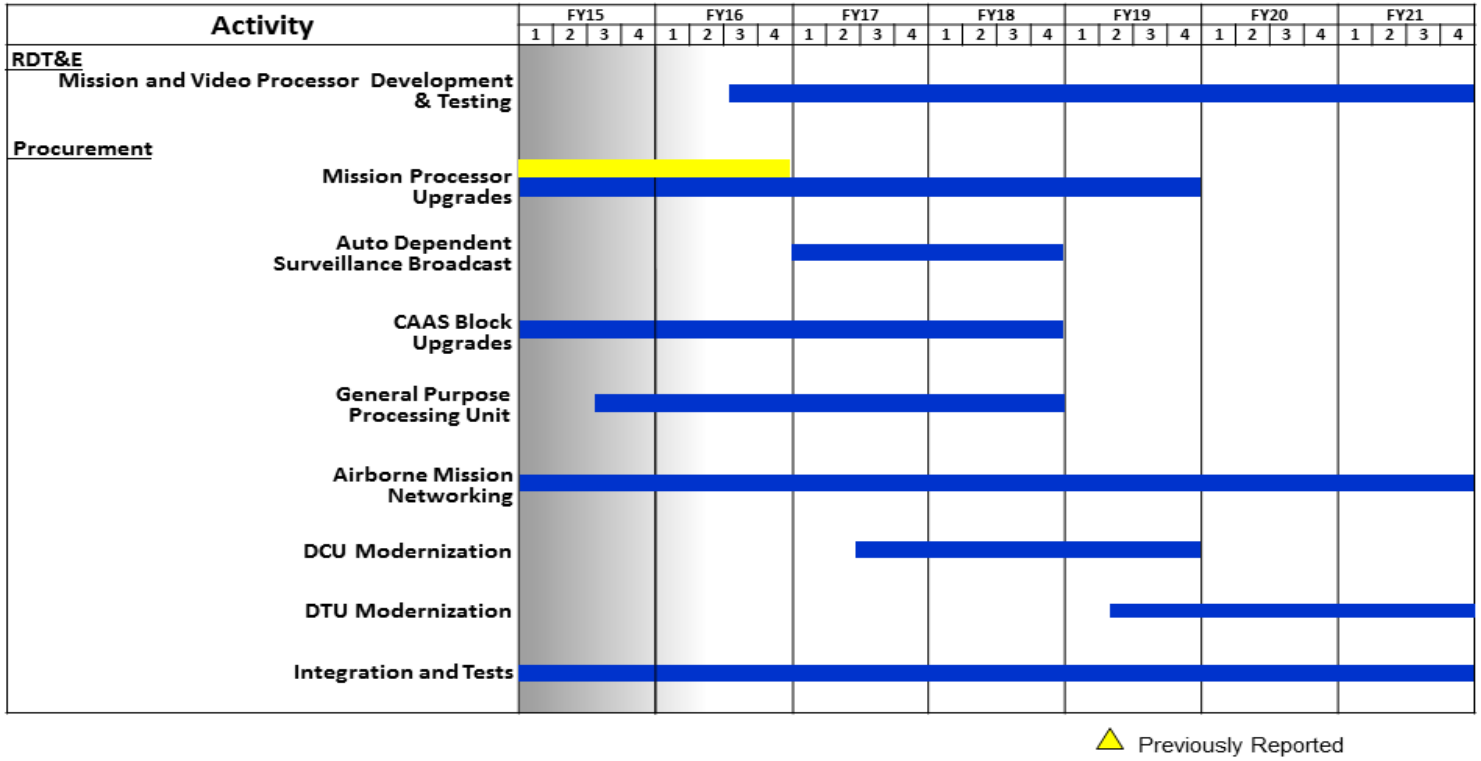

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Next Generation FLIR Schedule

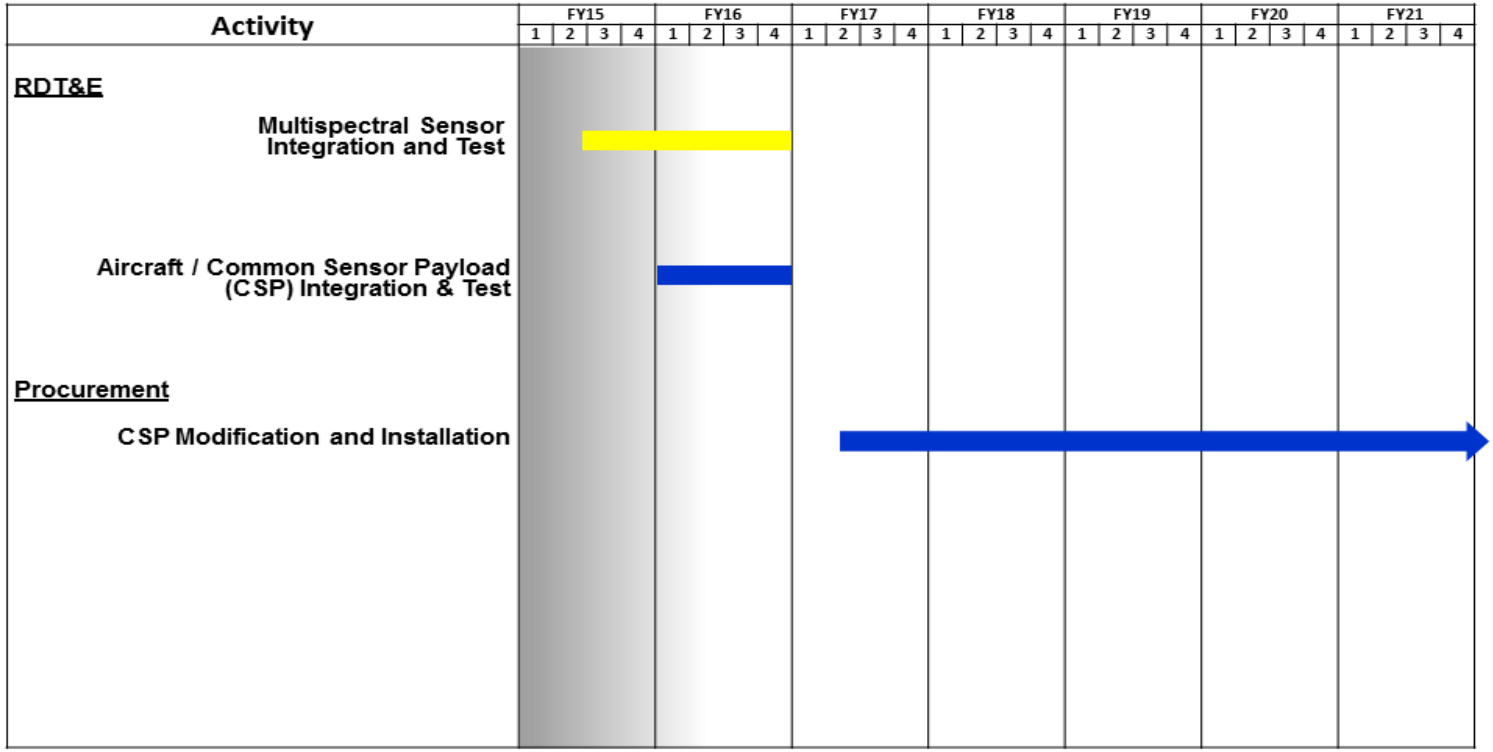

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
A/MH-6M Block 3.0 Development/Qualification/Testing	1	2015	3	2018
MH-60M Modifications and Upgrades	1	2017	4	2021
MH-60M Block Upgrades Testing	3	2015	4	2016
Degraded Visual Environment (DVE)	1	2015	4	2017
Future Vertical Lift (FVL)	1	2015	1	2019
Infrared Countermeasure (IRCM)	4	2015	4	2020
MH-47G Modifications and Upgrades Qualification/Testing	4	2015	4	2021
Mission Processor Upgrade (MPU)	3	2015	4	2021
Next Generation Foward Looking Infrared (NGFLIR)	1	2016	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	554.286	9.490	6.866	7.958	-	7.958	7.952	7.813	7.953	8.099	Continuing	Continuing
S400: *SO Intelligence Systems*	554.286	9.490	6.866	7.958	-	7.958	7.952	7.813	7.953	8.099	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, 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 of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. USSOCOM has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities into the 21st century. USSOCOM's 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. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	9.490	6.866	6.969	-	6.969
Current President's Budget	9.490	6.866	7.958	-	7.958
Total Adjustments	0.000	0.000	0.989	-	0.989
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.989	-	0.989

Change Summary Explanation

Funding:

FY 2015: None.

FY 2016: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

FY 2017: Net increase of $0.989 million funds Joint Threat Warning System's ($0.889 million) Air, Ground Signal Intelligence Kit, Maritime and Unmanned Air System variants' development to address emerging threats with evolutionary technology insertions and developmental and operational testing. The Special Operations Forces Planning, Rehearsal and Execution Preparation (SOFPREP) program ($0.160 million) will fund test and evaluation of operational prototype systems to speed production of enhanced Geospatial Intelligence (GEOINT) and high-resolution 3D terrain databases, and a decrease for Departmental economic assumption (-$0.060 million).

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160405BB / *Intelligence Systems Development*	Project (Number/Name) S400 / *SO Intelligence Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S400: *SO Intelligence Systems*	554.286	9.490	6.866	7.958	-	7.958	7.952	7.813	7.953	8.099	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, 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 of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. 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); Special Operations Forces Planning, Rehearsal and Execution Preparation (SOFPREP); Integrated Survey Program (ISP); and Sensitive Site Exploitation (SSE).

U.S. Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's 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. The intelligence programs funded in this project will meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team) and Above Operational Element (Garrison).

OPERATIONAL ELEMENT (TEAM)

• NSSS. This program provides a research and development rapid prototyping program that functions as HQ SOCOM's Tactical Exploitation of National Capabilities (TENCAP) program. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands by leveraging National Government Agency (NGA) and Service development efforts to provide innovative space-based intelligence systems technologies and enhancements, products and special communications capabilities to tactical SOF units to include Geospatial Intelligence, Signals Intelligence, Special Communications, and intelligence fusion, reporting, and dissemination. NSSS efforts are characterized by rapid development, fielding and deployment, and focus on transitioning to SOCOM Programs of Records. These developmental efforts usually support SOCOM's existing Military Intelligence Programs. Focus items include: Small Unmanned Aerial System Multi-Intelligence geo-location and targeting capabilities with a Rapid Reliable Targeting system that supports National Geospatial Agency (NGA) CAT1 level targeting, enhanced Geospatial Intelligence (GEOINT) processing capabilities by fusing Light Detection and Ranging with National Technical Means (NTM) and the Enhanced Image Rendering Tool, which allows sharing of NTM Imagery with coalition forces. NSSS will also improve Signal Intelligence (SIGINT) capabilities by pursuing Joint Capabilities Integration and Development 4.x and follow-on compliant SIGINT capabilities, extending SOCOM's cross-domain security infrastructure by adding unclassified sensors into theater net-centric geo-location architecture, improve detection of Low-Probability of Intercept and Low Probability of Detection signals, and automated radar characterizations that enhance tactical SOF capabilities to find, fix, monitor, and target assets using NTM.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

• JTWS. JTWS is a System of Systems (SoS) and is principally a SIGINT system; however, it can be used under Electronic Warfare and/or Cyber authorities if required. The JTWS SoS enables the SOF Cryptologic Operator (SCO) to collect, process, locate and exploit threat communications signals of interest in order to provide timely, relevant, and responsive intelligence, cross-cueing, and threat avoidance information directly to the SOF Commanders. The JTWS SoS is assembled in four variants (level 1): Ground SIGINT Kit variant, Maritime variant, Air variant and Unmanned Aerial System variant. Each variant is further subdivided into a functional layer (level 2): Communications Intelligence, Electronic Intelligence, and Precision Geo-location (PGL) kits and an implementation layer (level 3) designed around the SCO mission environment and SOF platform specific requirements.

• HF-TTL. This program utilizes a commodity procurement strategy to provide SOF warfighters with the necessary tools to find, fix, and finish terrorist networks through the emplacement of sophisticated tags and devices that feed into an integrated architecture. HF-TTL provides Global Combatant Commanders 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 planners. The mission sets are comprised of 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 Theater Special Operations Commands based upon dynamic and emergent SOF operational requirements.

• TVS/RSTA. 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 adversary's movement, construct, identification, location; and associated things and activities. TVS/RSTA provides Global Combatant Commanders 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 program 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.

ABOVE OPERATIONAL ELEMENT (GARRISON)

• SOFPREP. This program serves as the intelligence focal point for production of SOF enhanced GEOINT (maps, imagery, and terrain data) and 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 facilitates access to authoritative source data to enable the rapid discovery, retrieval, and reuse of GEOINT data across SOF mission planning, operations, intelligence and modeling and simulation. SOFPREP is a NGA-certified co-producer in support of time-sensitive SOF specific requirements.

• ISP. 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 domestic and overseas. ISP products are specifically tailored packages that provide operational information, as well as 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.

• SSE. This program provides the capability to exploit personnel, documents, electronic data, material, and forensic evidence on sensitive sites/objectives. Biometrics allows collection and transmission of 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

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

kits enable on-objective linking of events to specific persons through chemical analysis, latent fingerprints, cell phones and computer data analysis, and deoxyribonucleic acid collection. Exploitation Analysis Centers provide theater-level forensic laboratory capabilities for more in-depth exploitation of captured evidence.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: NSSS	0.807	0.802	0.816
FY 2015 Accomplishments: Developed SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the Intelligence Community (IC), while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasized areas include Intelligence, Surveillance, and Reconnaissance (ISR) support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as Friendly Force Tracking (FFT), especially in system-challenged environments.			
FY 2016 Plans: Continue development of SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the IC, while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasize areas to include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.			
FY 2017 Plans: Continues development of SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the IC, while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasizes areas to include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.			
Title: JTWS	7.301	4.317	5.233
FY 2015 Accomplishments: Continued networking and testing within the JTWS SoS and continued spiral development for all variants. Continued JTWS Maritime prototype development.			
FY 2016 Plans: Continue networking and testing within the JTWS SoS and continues spiral development for all variants. Continue JTWS Maritime prototype development.			
FY 2017 Plans: Continues networking and testing within the JTWS SoS and continues spiral development for all variants. Continues JTWS Maritime development and operational testing.			
Title: HF-TTL	0.731	0.765	0.801

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: Began specialized device modifications, integration and operational testing and evaluation. ***FY 2016 Plans:*** Continue specialized device modifications, integration and operational testing and evaluation. ***FY 2017 Plans:*** Continues specialized device modifications, integration and operational testing and evaluation.			
Title: TVS/RSTA ***FY 2015 Accomplishments:*** Continued integration/operational testing within the TVS/RSTA FoS for technology insertions of improved/downsized hardware/ software configuration on all systems. ***FY 2016 Plans:*** Continue integration/operational testing within the TVS/RSTA FoS for technology insertions of improved/downsized hardware/ software configuration on all systems. ***FY 2017 Plans:*** Continues integration/operational testing within the TVS/RSTA FoS for technology insertions of improved/downsized hardware/ software configuration on all systems.	0.373	0.377	0.385
Title: SOFPREP ***FY 2016 Plans:*** Begin testing and evaluation of operational prototype systems to speed production of correlated high resolution 3D terrain databases in a Graphics Processing Unit (GPU) accelerated high performance computing architecture. ***FY 2017 Plans:*** Continues testing and evaluation of operational prototype systems to speed production of correlated high resolution 3D terrain databases in a GPU accelerated high performance computing architecture.	-	0.325	0.439
Title: ISP ***FY 2015 Accomplishments:*** Began development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology. ***FY 2016 Plans:***	0.278	0.125	0.127

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Continue development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology. ***FY 2017 Plans:*** Continues development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology.			
Title: SSE ***FY 2016 Plans:*** Begin specialized device integration and operational testing and evaluation. ***FY 2017 Plans:*** Continues evaluation of new technologies, and formal testing to confirm operational effectiveness and suitability prior to fielding.	-	0.155	0.157
Accomplishments/Planned Programs Subtotals	9.490	6.866	7.958

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/020400INTL: *Intelligence Systems*	86.837	93.009	79.963	-	79.963	82.054	73.445	82.989	92.509	Continuing	Continuing

Remarks

D. Acquisition Strategy

• NSSS introduces and integrates national systems capabilities into the SOF force structure and operations. This is accomplished by partnering with existing IC programs of record to incorporate SOF mission requirements into current and developing technologies and assets. This leveraging of funding increases national and commercial systems awareness, demonstrates the tactical utility of national systems and commercial data, tests technologies and evaluates operational concepts in biennial Joint Staff Special Projects, and allows for the transition of promising concepts and technologies to other SOF program office for execution.

• JTWS employs an evolutionary strategy to provide upgraded next generation technology insertions and to address the changing threat environment for all air, ground, maritime and unmanned air system variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational test and acceptance support. The contracting strategy uses a mixture of indefinite delivery/indefinite quantity contracts for Commercial off-the-shelf (COTS) procurement and new development only as necessary.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

• HF-TTL utilizes a commodity procurement 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 commercial-off-the-shelf 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 employs an evolutionary strategy to insert emerging technologies for processing, exploitation and dissemination capabilities tailored to SOF user-defined mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• ISP employs an evolutionary strategy to insert emerging technologies for collection, processing, exploitation and dissemination capabilities tailored to SOF user-defined mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SSE uses a commodity procurement 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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
National Systems Support to SOF (NSSS)	MIPR	Various : Various	14.873	0.542	Dec 2014	0.532	Dec 2015	0.541	Dec 2016	-		0.541	Continuing	Continuing	-
Joint Threat Warning System (JTWS)-Air Increment 2	MIPR	SPAWAR : Charleston, SC	5.168	0.935	Nov 2014	1.000	Nov 2015	1.099	Nov 2016	-		1.099	Continuing	Continuing	-
JTWS-Ground Sigint Kit (GSK), Inc 2	C/CPFF	Various : Various	19.057	0.791	Nov 2014	0.795	Nov 2015	0.974	Nov 2016	-		0.974	Continuing	Continuing	-
JTWS-Maritime	C/CPFF	Various : Various	4.422	3.387	Nov 2014	0.452	Nov 2015	0.462	Nov 2016	-		0.462	Continuing	Continuing	-
JTWS-All Variants	MIPR	Various : Various	0.818	0.836	Oct 2014	0.637	Oct 2015	1.152	Oct 2016	-		1.152	Continuing	Continuing	-
Integrated Survey Program	C/FFP	Various : Various	-	0.278	Jan 2015	0.125	Jan 2016	0.127	Jan 2017	-		0.127	Continuing	Continuing	-
Hostile Forces-Tagging Tracking, and Locating (HF-TTL)	C/CPFF	Various : Various	-	0.731	Apr 2015	0.484	Nov 2015	0.516	Nov 2016	-		0.516	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	461.047	-		-		-		-		-	0.000	461.047	-
		Subtotal	505.385	7.500		4.025		4.871		-		4.871	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS Variant Analysis - Naval Post-Graduate School (NPS)	MIPR	NPS : Monterey, CA	0.515	0.135	Jan 2015	0.137	Jan 2016	0.169	Jan 2017	-		0.169	Continuing	Continuing	-
JTWS-NSA Intern Support	MIPR	NSA : Ft Meade, MD	0.400	0.103	Apr 2015	0.105	Apr 2016	0.127	Apr 2017	-		0.127	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	6.493	-		-		-		-		-	0.000	6.493	-
		Subtotal	7.408	0.238		0.242		0.296		-		0.296	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS	MIPR	JITC : FT Huachuca, AZ	4.680	1.114	Nov 2014	1.191	Nov 2015	1.250	Nov 2016	-		1.250	Continuing	Continuing	-
Tactical Video System/ Reconnaissance, Surveillance, & Target Acquisition	MIPR	ATEC : FT Huachuca, AZ	0.367	0.373	May 2015	0.377	Jun 2016	0.385	Jun 2017	-		0.385	Continuing	Continuing	-
HF-TTL	MIPR	ATEC : FT Huachuca, AZ	-	-		0.281	Nov 2015	0.285	Nov 2016	-		0.285	Continuing	Continuing	-
Sensitive Site Exploitation	MIPR	JITC : FT Huachuca, AZ	-	-		0.155	Dec 2015	0.157	Dec 2016	-		0.157	Continuing	Continuing	-
Special Operations Forces Planning, Rehearsal & Execution Preparation	C/FFP	Various : Various	-	-		0.325	Jan 2016	0.439	Jan 2017	-		0.439	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.549	-		-		-		-		-	0.000	0.549	-
		Subtotal	5.596	1.487		2.329		2.516		-		2.516	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSSS Program Support	C/CPAF	Jacobs : Tampa, FL	5.218	0.265	May 2015	0.270	May 2016	0.275	May 2017	-		0.275	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	30.679	-		-		-		-		-	0.000	30.679	-
		Subtotal	35.897	0.265		0.270		0.275		-		0.275	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	554.286	9.490		6.866		7.958		-		7.958	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

NSSS/TENCAP Program Schedule

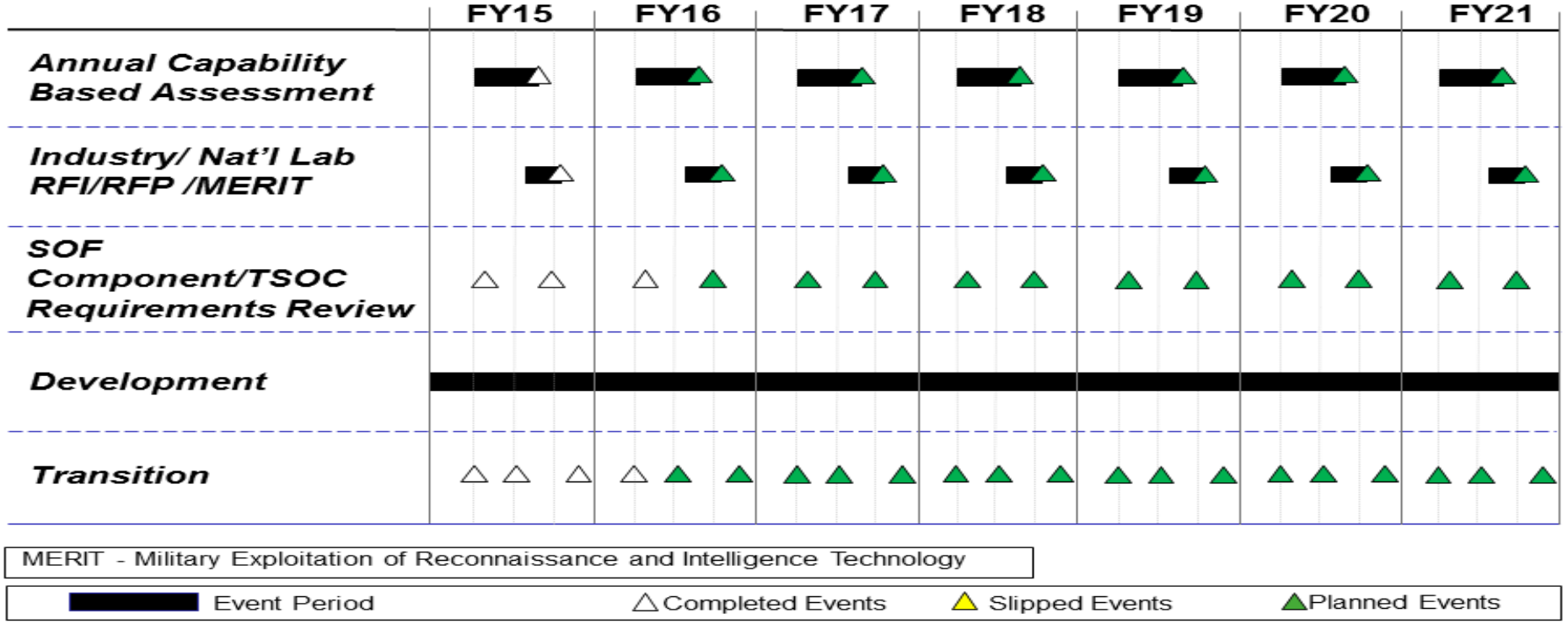

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Joint Threat Warning System Schedule

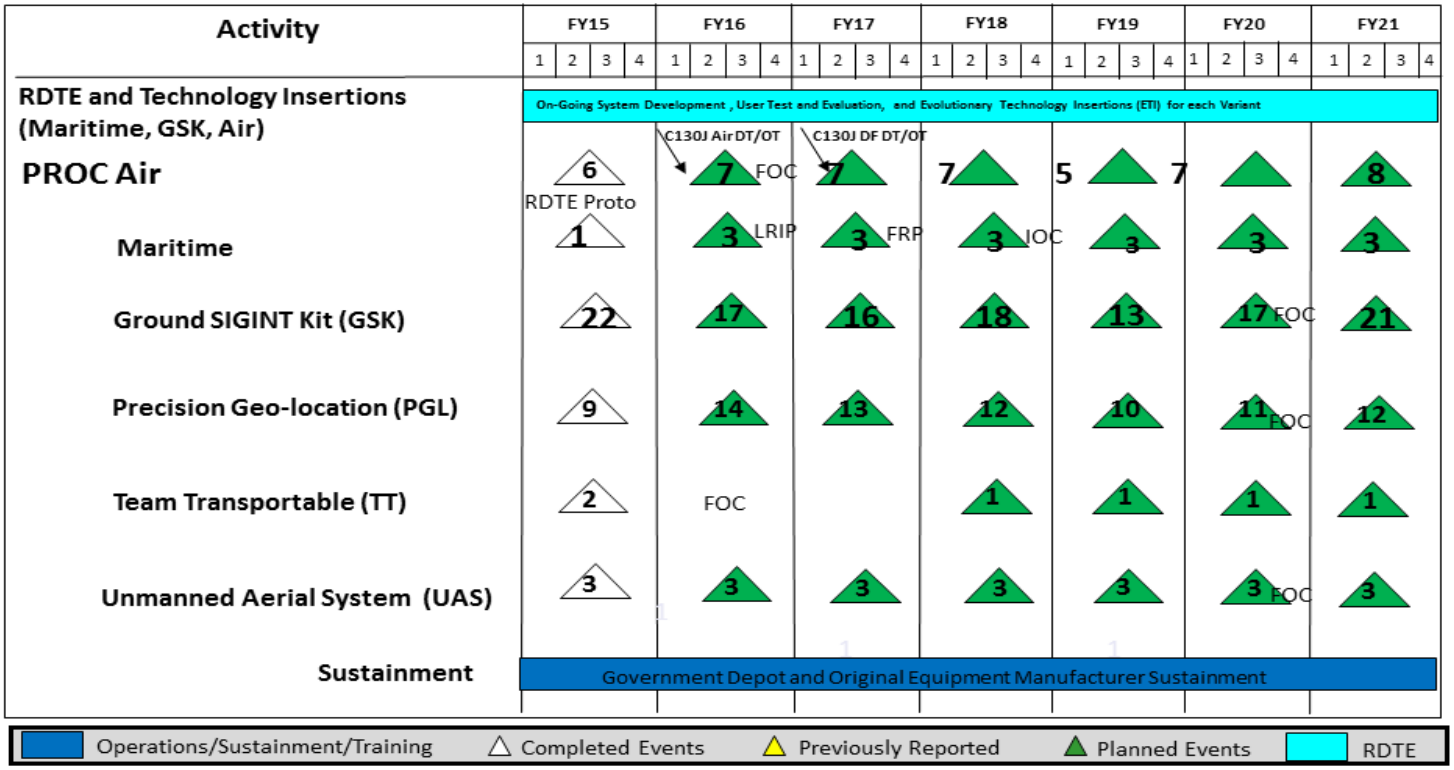

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

HF-TTL Schedule

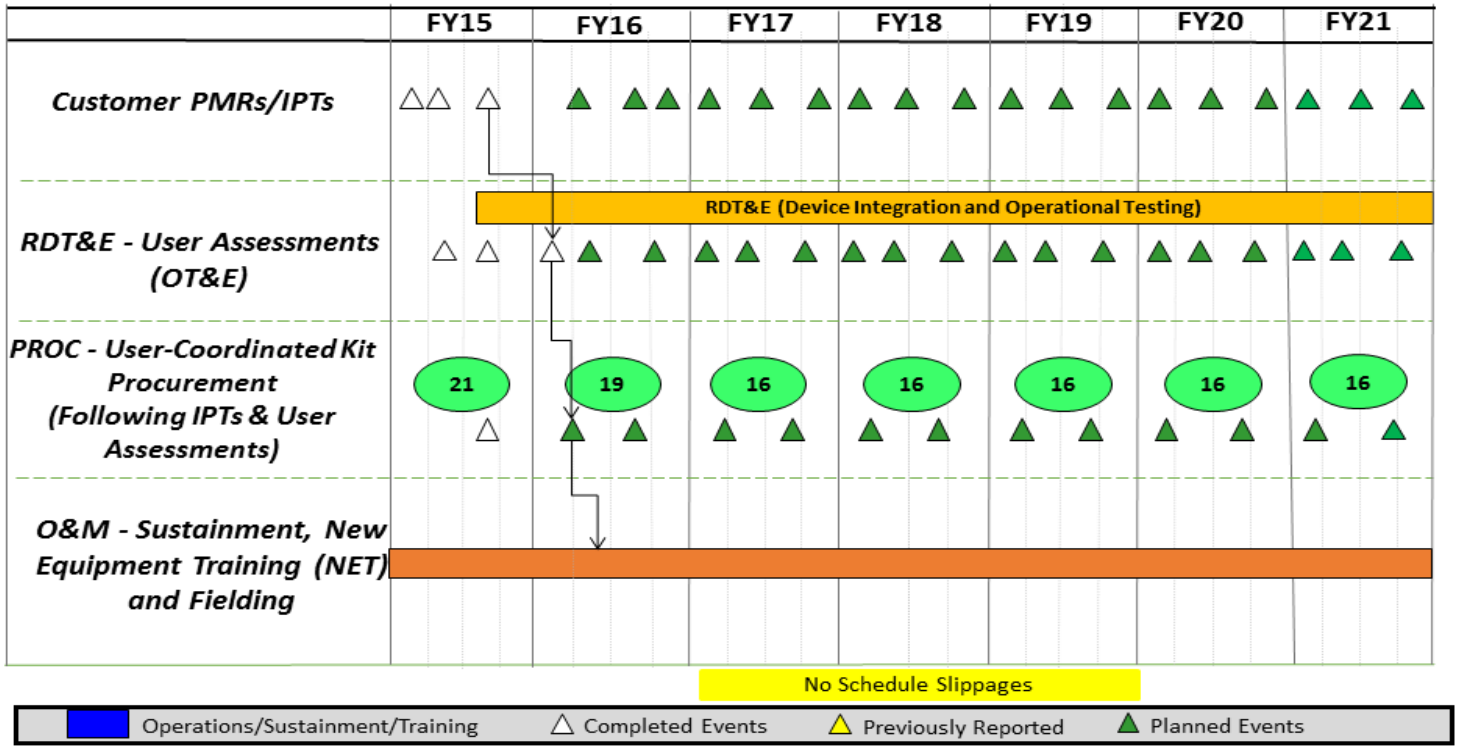

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

TVS/RSTA Schedule

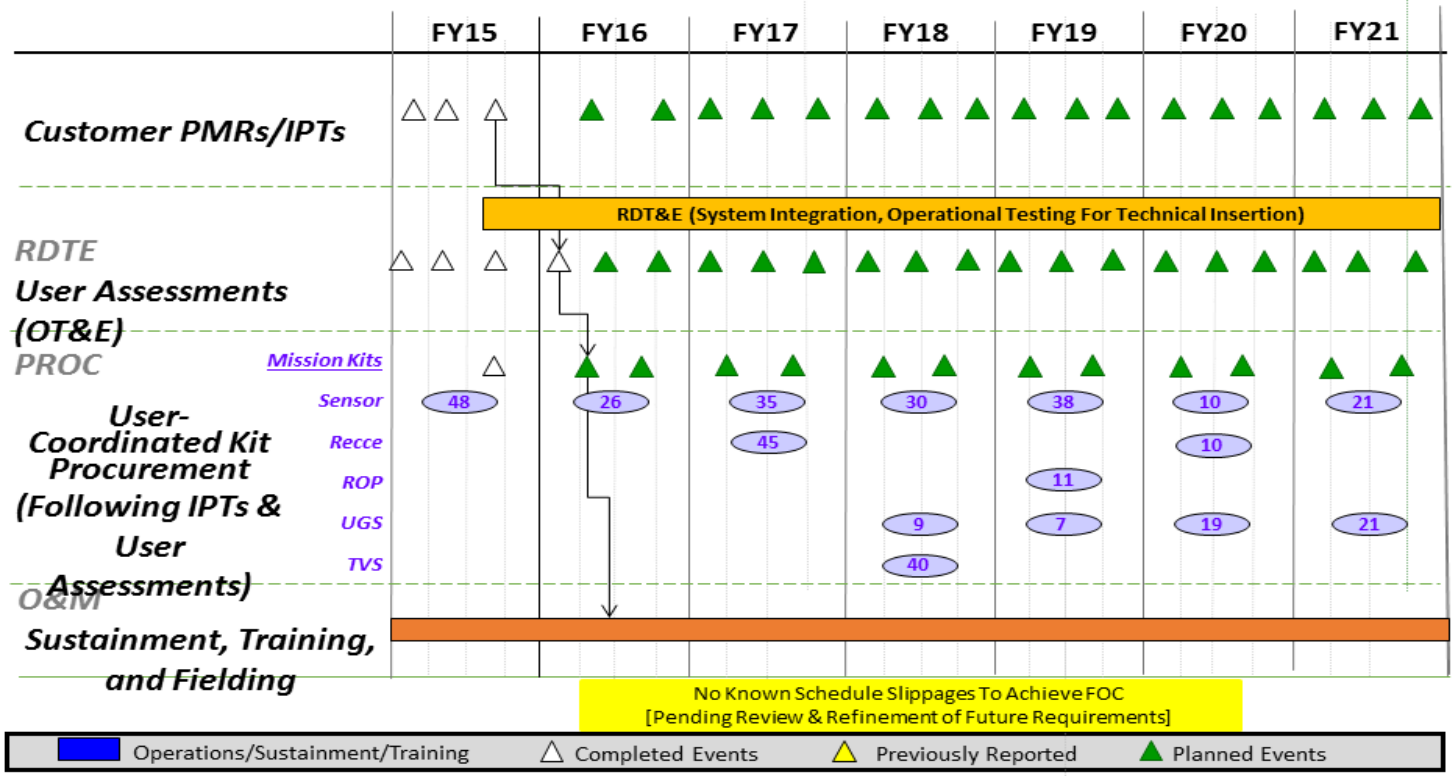

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

SOFPREP Schedule

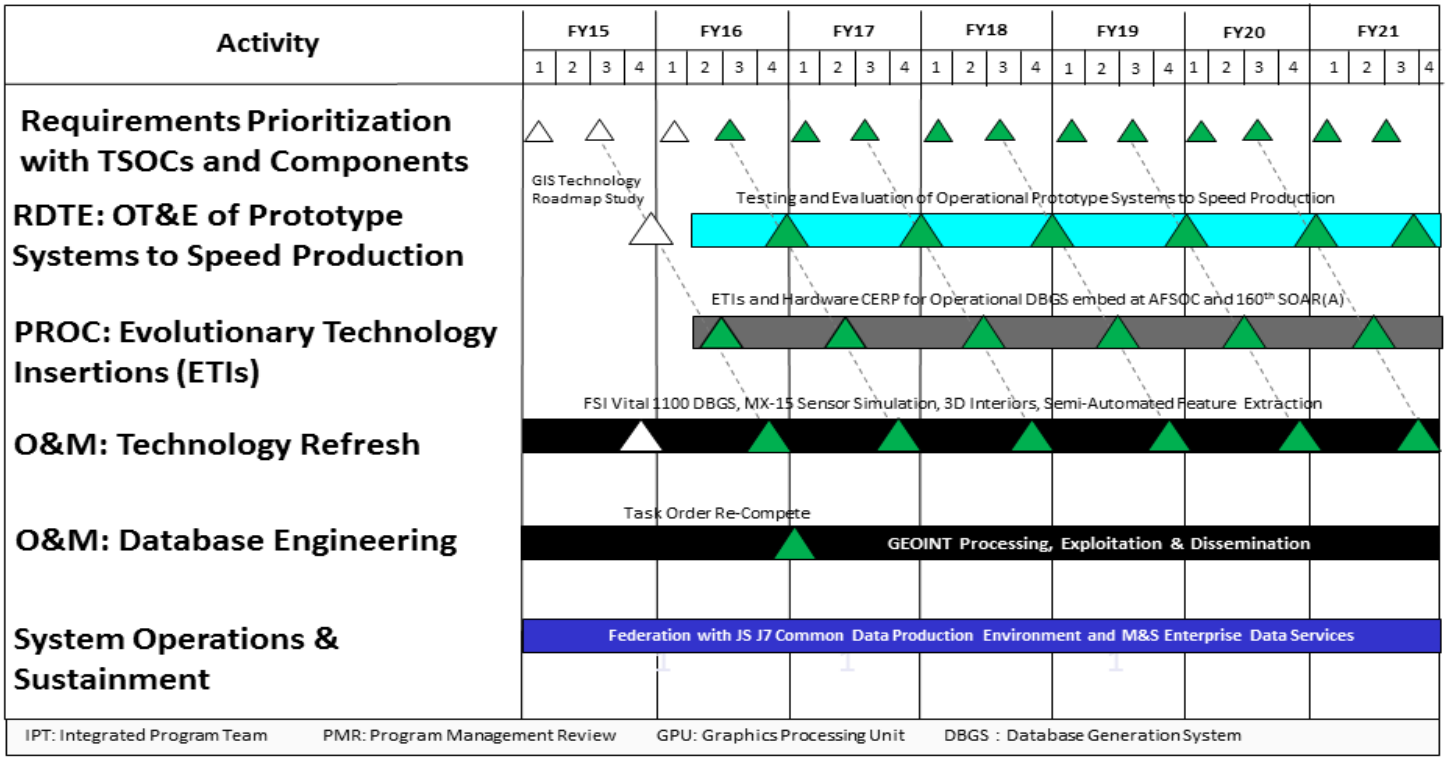

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

ISP Schedule

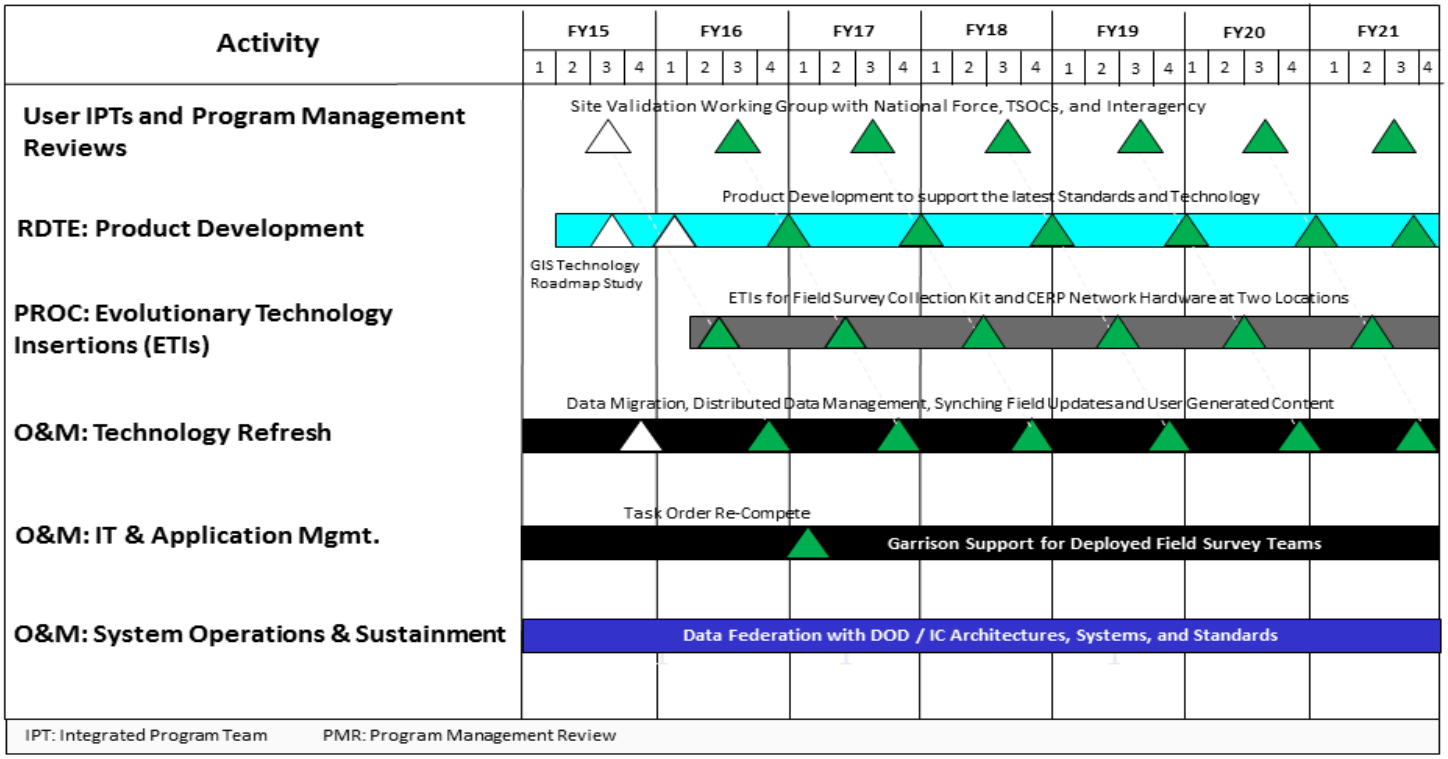

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

SSE Schedule

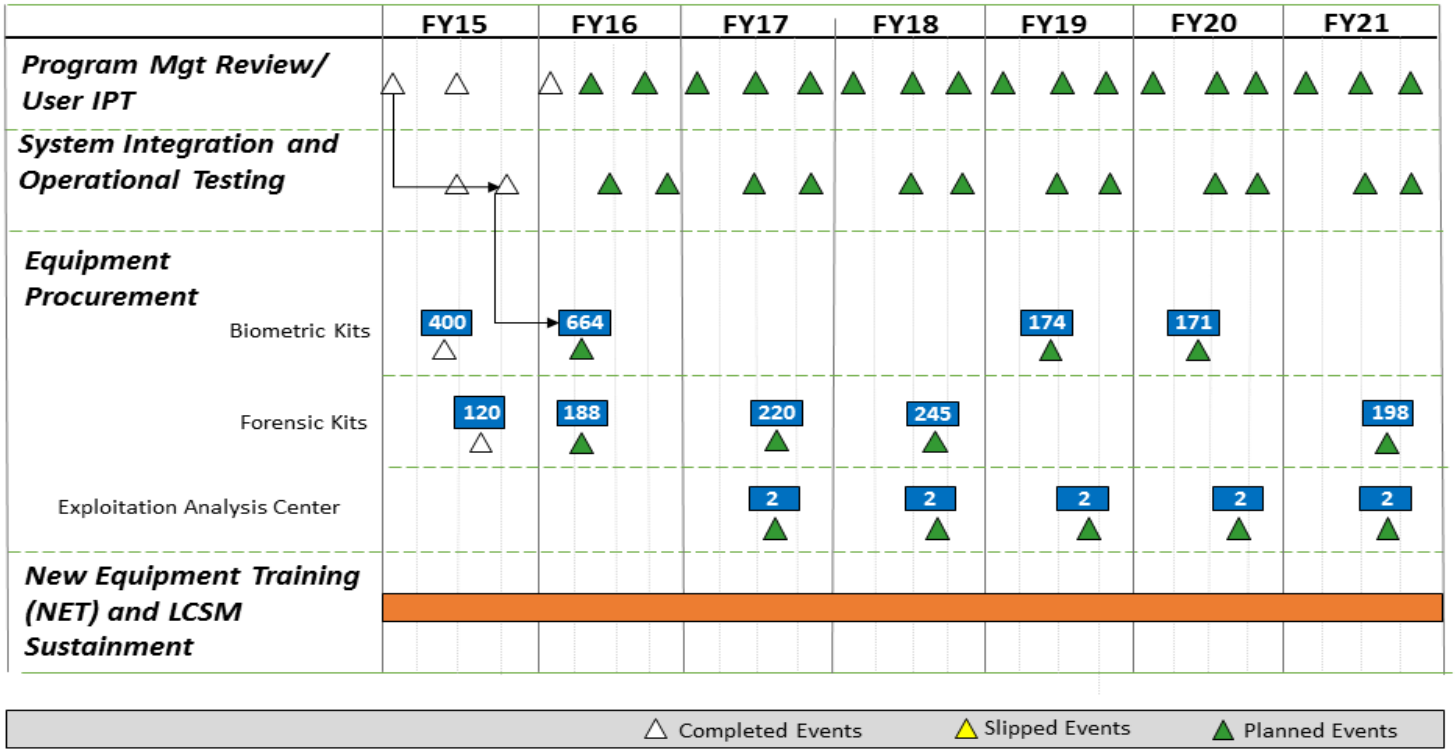

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
National Systems Support to SOF Participation in Space Technology Development and Integration				
National System Support to SOF Participation in Space Technology Development and Integration	1	2015	4	2021
Joint Threat Warning System				
Air Variant Development, Test and Evaluation	1	2015	4	2021
Ground Sigint Kit Variant Development, Test and Evaluation	1	2015	4	2021
Maritime Variant Development, Test and Evaluation	1	2015	4	2021
Hostile Forces - Tagging, Tracking, and Locating				
Device Integration and Operational Testing	3	2015	4	2021
Special Operations Tactical Video System				
System Integration and Operational Testing	3	2015	4	2021
Special Operations Forces Planning, Rehearsal & Execution Preparation				
Operational Test and Evaluation	2	2016	4	2021
Integrated Survey Program				
Product Development	2	2015	4	2021
Sensitive Site Exploitation				
System Integration and Operational Testing	1	2016	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160408BB / *Operational Enhancements*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	1,174.948	78.627	63.008	64.895	-	64.895	69.973	70.457	75.400	79.150	Continuing	Continuing
S500A: *Operational Enhancements*	1,174.948	78.627	63.008	64.895	-	64.895	69.973	70.457	75.400	79.150	Continuing	Continuing

A. Mission Description and Budget Item Justification

Details are provided under separate cover.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	81.253	63.008	61.153	-	61.153
Current President's Budget	78.627	63.008	64.895	-	64.895
Total Adjustments	-2.626	0.000	3.742	-	3.742
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.626	-			
• Other Adjustments	-	-	3.742	-	3.742

Change Summary Explanation

Funding:

FY2015: Decrease of $2.626 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer program.

FY2016: None.

FY2017: Net Increase of $3.742 million is due to a Departmental economic assumption decrease (-$0.488M) and a programmatic increase of $4.230 million available under separate cover.

Schedule: None.

Technical: None.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	15.391	19.906	33.842	44.885	-	44.885	29.581	24.200	46.735	48.759	Continuing	Continuing
D476: *Military Information Support Operations*	2.177	3.566	6.430	4.711	-	4.711	3.489	1.087	1.109	1.131	Continuing	Continuing
S375: *Weapons Systems*	0.565	0.000	1.494	1.481	-	1.481	1.480	1.474	1.475	1.505	Continuing	Continuing
S385: *Soldier Protection and Survival Systems*	2.195	2.471	2.649	2.577	-	2.577	2.352	2.849	22.668	27.676	Continuing	Continuing
S385A: *Body Armor and Associated Equipment*	1.750	1.909	1.354	1.339	-	1.339	1.289	1.289	1.636	1.669	Continuing	Continuing
S395: *Visual Augmentation, Lasers and Sensor Systems*	0.000	1.422	2.189	1.482	-	1.482	1.517	1.546	1.575	1.602	Continuing	Continuing
S700: *Communications Equipment and Electronics Systems*	3.264	4.098	5.740	9.373	-	9.373	7.864	8.003	9.484	9.664	Continuing	Continuing
S710: *Tactical Systems Development*	0.243	0.930	0.868	2.640	-	2.640	2.416	2.523	3.031	3.083	Continuing	Continuing
S725: *Tactical Radio Systems*	1.811	4.777	2.170	3.884	-	3.884	3.683	4.892	5.219	1.880	Continuing	Continuing
S800: *Munitions Advanced Development*	3.386	0.733	10.948	17.398	-	17.398	5.491	0.537	0.538	0.549	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for development, 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. 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 protection and survival requirements will improve survivability

and mobility of SOF while conducting varied missions. 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. Additionally, MISO efforts include 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.

MISO:
This project provides for the development, test and integration of MISO equipment. 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 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.

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 provides for development, testing, and integration of specialized equipment to meet the unique soldier protection and survival requirements of SOF. Specialized equipment will improve survivability and mobility of SOF while conducting varied missions. Current efforts include, but are not limited to counter-improvised explosive device system development and testing to meet continually emerging Counter RC-IED threats.

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 development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of SOF. Programs in this area include binocular/monocular devices and visual augmentation to include next generation laser designation and geo-location systems.

Communications Equipment and Electronics Systems:
This project provides for communication systems to meet emergent requirements to support SOF. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*

Tactical Systems Development:
This project provides for 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 is for development of all SOF tactical radio programs. SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. SOF Tactical Radios provide the critical C3 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.

Munitions Development:
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 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 Stand-Off Precision Guided Munitions (SOPGM), including the development and integration of improved warheads, seeker, guidance navigation and control systems, operational flight software and missile delivery to meet SOF requirements.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	20.573	25.342	20.243	-	20.243
Current President's Budget	19.906	33.842	44.885	-	44.885
Total Adjustments	-0.667	8.500	24.642	-	24.642
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.667	-			
• Other Adjustments	0.000	0.000	24.642	-	24.642

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: S800: *Munitions Advanced Development*		
Congressional Add: *Stand-Off Precision Guided Munitions (SOPGM)*	-	10.500
Congressional Add Subtotals for Project: S800	-	10.500
Congressional Add Totals for all Projects	-	10.500

Change Summary Explanation

Funding:

FY 2015: Decrease of $0.667 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.

FY 2016: Net Increase of $8.500 million is due to a congressional add that supports the integration and testing of service-common munitions on SOF-unique platforms within the Stand-Off Guided Munitions (SOPGM) program ($10.500 million) and Congressional Directed Reductions in Military Information Support Operations (-$0.180 million), Soldier Protection and Survival Systems (-$0.249 million), Body Armor and Associated Equipment (-$0.193 million), Visual Augmentation, Lasers and Sensor Systems (-$0.144 million), Communications Equipment and Electronics (-$0.612 million), Tactical Systems Development (-$0.100 million), Tactical Radio Systems (-$0.448 million), and Advanced Munitions Development (-$0.074 million).

FY 2017: Net Increase of $24.642 million supports SDBII Missile integration into the SOPGM program ($17.000 million), STC evolutionary technology insertions for radio equipment ($2.148 million), new civil affairs technologies in the CIM program ($1.847 million), advanced SDN encoding methods ($1.330 million), systems integration efforts in the TACLN program ($1.330 million), a realignment of $0.750 million to support testing of the VAS program, $0.500 million to support development of electronic warfare/electronic countermeasures for systems in the RC-CIED program, $0.073 million that continues development and testing of new capability in BFT equipment, and a program decrease for economic assumptions (-0.336 million).

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
D476: *Military Information Support Operations*	2.177	3.566	6.430	4.711	-	4.711	3.489	1.087	1.109	1.131	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development and acquisition of Military Information Support Operations (MISO) equipment. 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.

• Prior to FY 2015, the MISO Broadcast Systems (MISOB) consisted of the Media Production Center (MPC) Family of Systems (FoS); Product Distribution System (PDS); Fly Away Broadcast System (FABS); and the Long Range Broadcast System (LRBS). Starting in FY 2015 the MISO Broadcast System will be split into these individual programs of records. These systems provide fixed or deployable technologies that fulfill the requirements of the MISO seven phase processes in support to theater commanders. This project is comprised of several interfacing systems that can stand alone or inter-operate with other MISO systems as determined by mission requirements and includes:

• Media Production and Broadcast Systems support the MPC and FABS MISO missions. The MPC includes the fixed site MPC with light and medium media production capability. FABS is a transit case fly-away broadcast system that consists of a combination of amplitude modulation (AM), frequency modulation (FM), shortwave (SW), cellular, and television (TV) transmitters.

• LRBS is a family of broadcast systems intended to be integrated to multiple manned and unmanned, long-loiter aerial systems with the capability of broadcasting in AM, FM, SW, TV, Very High Frequency (VHF), TV Ultra High Frequency (UHF) and cellular (Short Message Service, Multi-Media Messaging Service, and Voice). This system provides the capability of broadcasting MISO messages via multiple mediums into permissive, semi-permissive, and denied foreign areas.

• PDS provides the satellite communications (SATCOM) transport path for the worldwide Military Information Support Operations (MISO) architecture. PDS consists of three variants that are used at different levels of command from the Media Operations Complex (MOC) to the Tactical MISO Teams in order to link MISO planners with review/approval authorities, production facilities, and dissemination elements.

• FABS (previously reported in Media Production and Broadcast Systems) is a transit case fly-away broadcast system that consists of a combination of AM, FM, SW, cellular, and TV transmitters.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Media Production and Broadcast System	2.185	1.894	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
FY 2015 Accomplishments: Continued primary hardware development, systems engineering, and test and evaluation on product distribution technologies to enhance MISO product. Integrated and disseminated new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements. Specific focus on a light cellular broadcast capability reducing size and weight and FABS/SOF Deployable Node (SDN) interoperability. ***FY 2016 Plans:*** Test and evaluate new systems and components to enhance MISO product. Integrate and disseminate new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements.					
Title: LRBS ***FY 2015 Accomplishments:*** Began primary hardware development, system engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies. ***FY 2016 Plans:*** Continue with primary hardware development, systems engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies. ***FY 2017 Base Plans:*** Continues with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.	1.326	4.536	2.894	-	2.894
Title: PDS ***FY 2015 Accomplishments:*** Completed advance technology, and test and evaluations of new PDS/SDN-P components integrating audio/ visual capabilities for enhanced distribution and delivery of MISO products.	0.055	-	-	-	-
Title: FABS ***FY 2017 Base Plans:***	-	-	1.817	-	1.817

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Tests and evaluates new systems and components to enhance MISO broadcasts. Continues with primary hardware development to reduce broadcast system weight and size while adding multi-mission capabilities.					
Accomplishments/Planned Programs Subtotals	3.566	6.430	4.711	-	4.711

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC1/0204OTHER: *OTHER ITEMS <$5M*	103.833	79.149	66.436	11.580	78.016	56.623	70.531	67.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

• The Media Production and Broadcast system program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

• The PDS program has an evolutionary acquisition strategy. Commercial and government agency sources will continue to be leveraged for required certifications, functional and operational tests, and acceptance support.

• The LRBS program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

• The FABS program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

E. Performance Metrics

N/A.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Media Production and Broadcast Systems	Reqn	JHU/APL : Laurel, MD	0.912	1.770	Jan 2015	1.694	Apr 2016	-		-		-	0.000	4.376	-
Long Range Broadcast System (LRBS)	MIPR	NSWC-Crane : Crane, IN : Crane, IN	-	1.326	Feb 2015	4.086	Jan 2016	2.684	Jan 2017	-		2.684	Continuing	Continuing	-
Product Distribution System	Reqn	CACI : Various	-	0.055	Apr 2015	-		-		-		-	0.000	0.055	-
Fly Away Broadcast Systems (FABS)	Reqn	JHU / APL : Laurel, MD	-	-		-		1.667	Feb 2017	-		1.667	Continuing	Continuing	-
FABS Cellular Broadcast Lite	Reqn	Digital Receiving Technologies (DRT) : Germantown, MD	1.265	0.340	Jun 2015	0.150	Apr 2016	-		-		-	0.000	1.755	-
		Subtotal	2.177	3.491		5.930		4.351		-		4.351	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LRBS	MIPR	NSWC-Crane : Crane, IN : Crane, IN	-	-		0.450	Jan 2016	0.210		-		0.210	Continuing	Continuing	-
FABS	Reqn	Various : Various	-	0.075	Feb 2015	0.050	Jan 2016	0.150	Feb 2017	-		0.150	Continuing	Continuing	-
		Subtotal	-	0.075		0.500		0.360		-		0.360	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.177	3.566		6.430		4.711		-		4.711	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Long Range Broadcast System (LRBS) Schedule

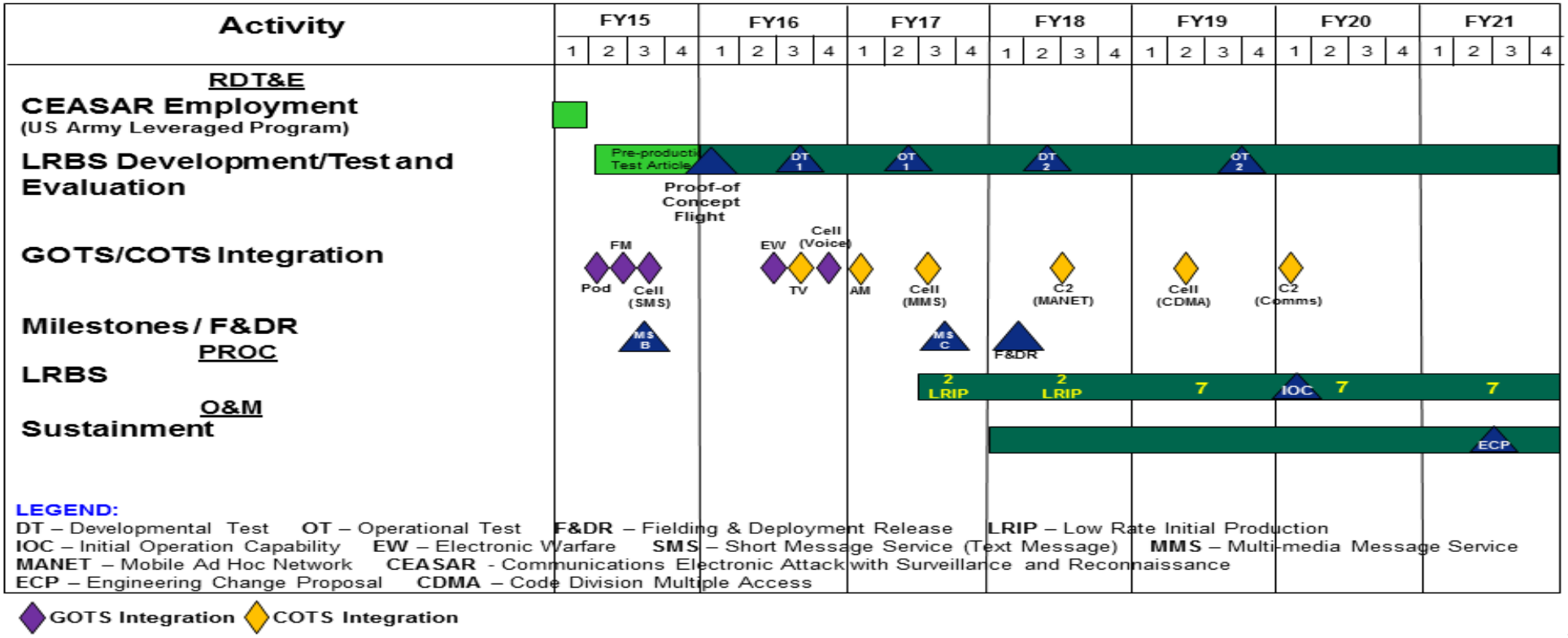

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Fly Away Broadcast System (FABS) Schedule

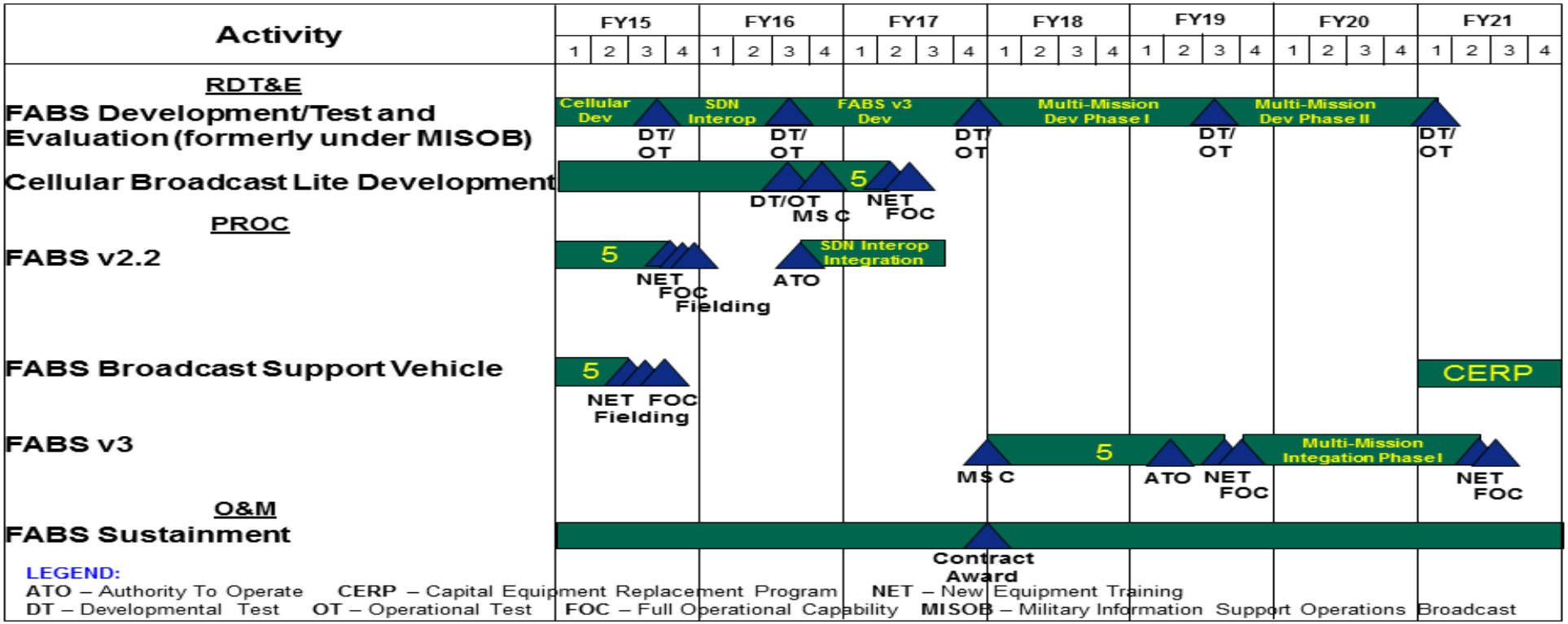

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Media Production and Broadcast Systems				
Hardware development and systems engineering	1	2015	4	2016
Long Range Broadcast System				
Material Research and Prototype	2	2015	2	2021
Test and Evaluation	1	2016	2	2021
Product Distribution System				
Hardware Development and Evaluation	3	2015	2	2016
Family of Broadcast Systems				
Hardware Development	2	2017	2	2021
Test and Evaluation	2	2015	1	2016

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S375 / *Weapons Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S375: *Weapons Systems*	0.565	0.000	1.494	1.481	-	1.481	1.480	1.474	1.475	1.505	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development and testing of specialized, common caliber, individual, sniper, machine gun, pistol, crew served weapons systems that enable SOF to accurately engage enemy personnel and material in all SOF environments at ranges up to 1500 meters. Weapons include common caliber modular assault rifles to engage out to 600 meters, Sniper Support Rifles to engage out to 800 meters, sniper rifles to engage out to 1500 meters, shoulder fired Grenade Launchers, vehicle and man-portable high velocity grenade launchers, pistols, machine guns to engage out to 1000 meters, multi-barreled mini-guns which can be mounted on boats, vehicles, aircraft, and ground mounted to engage out to 3,500 meters, and Weapon Accessories to be used on both service-common and SOF weapons, enabling 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Weapons Accessories (WPNAC)	-	1.494	1.481	-	1.481
FY 2016 Plans: Develop enhanced capabilities to improve performance of individual sniper, machine gun, and pistol weapons.					
FY 2017 Base Plans: Develops enhanced capabilities to improve performance of individual sniper, machine gun, and pistol weapons.					
Accomplishments/Planned Programs Subtotals	-	1.494	1.481	-	1.481

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems <$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

Weapons accessory development will take place within government laboratories as well as industry depending on the weapons system.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S375 / *Weapons Systems*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Arms Signature Reduction	MIPR	Various : Various	0.565	0.000		-		0.000		-		0.000	0.000	0.565	-
Weapons Development, Test, & Evaluation	MIPR	Various : Various	-	0.000		1.494	Jan 2016	1.481	Feb 2017	-		1.481	-	-	-
		Subtotal	0.565	0.000		1.494		1.481		-		1.481	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.565	0.000		1.494		1.481		-		1.481	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S375 / *Weapons Systems*

Weapons Systems Schedule

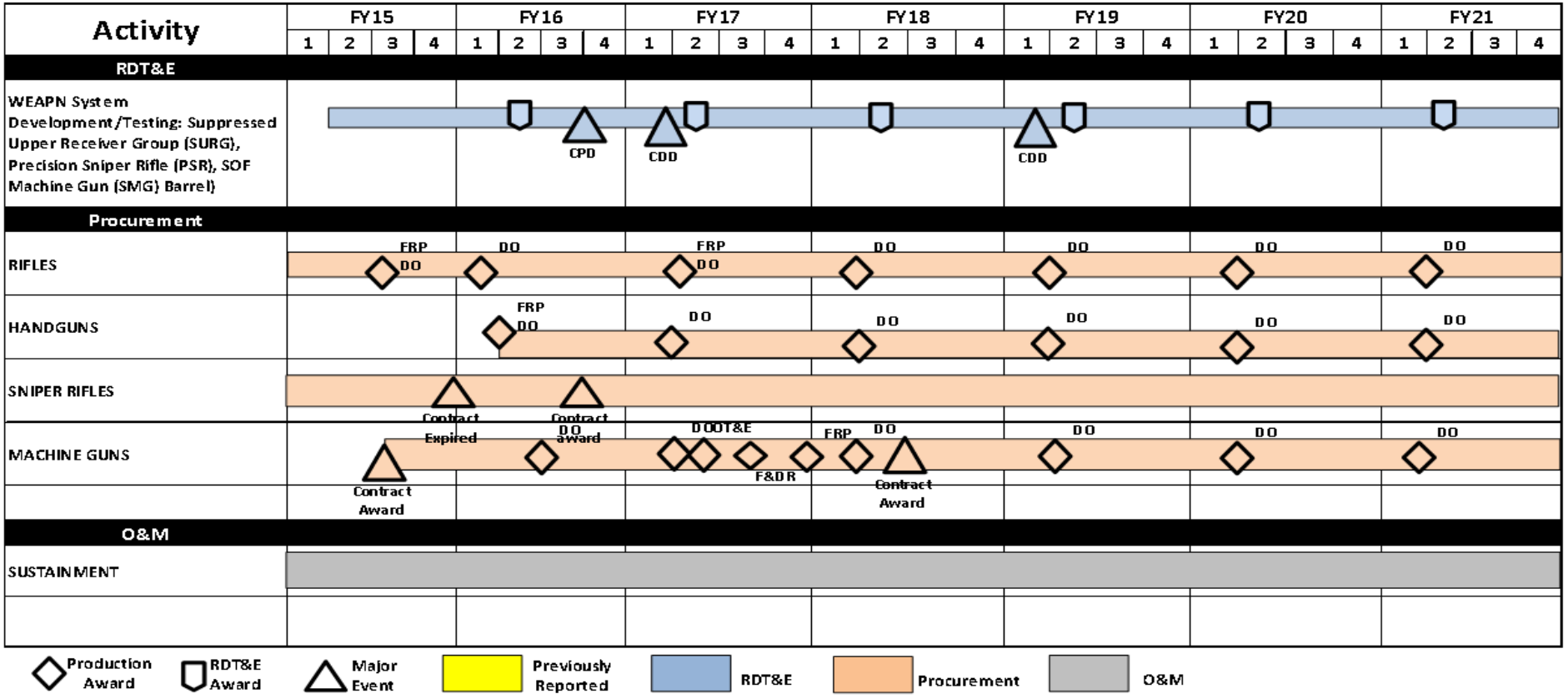

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S375 / *Weapons Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Weapons Systems				
Weapons Development, Test & Evaluation	2	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S385: *Soldier Protection and Survival Systems*	2.195	2.471	2.649	2.577	-	2.577	2.352	2.849	22.668	27.676	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 Special Operations Forces (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 equipment improves survivability protection from the environment by providing the operator with hearing protection and clothing systems, as well load bearing equipment to improve the mobility of SOF while conducting varied missions and personnel safety equipment such as harnesses and safety retention devices. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

SOF Personal Equipment Advanced Requirements (SPEAR) provides for the research, development, testing and evaluation of a variety of individual and survival equipment to include: ballistic and environmental protective systems, combat uniforms, load carriage systems, communications headsets, and visual augmentation system mounts.

Tactical Combat Casualty Care (TCCC) provides medical devices, ancillary equipment and Casualty Evacuation (CASEVAC) sets for SOF. The CASEVAC procures a suite of Food and Drug Administration 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, extrication, mobility, transportation, and sustainment of casualties in forward areas. This program fields tactical medical and CASEVAC capabilities with the intention to transition capabilities developed under the National Mission Force 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.

Counter Radio Controlled-Improvised Explosive Device (RC-IED) program provides SOF with the ability to counter current and future RC-IED threats used by terrorist networks.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SPEAR	0.887	1.295	0.474	-	0.474
FY 2015 Accomplishments: Continued profile refinement to support signature management and material research for uniforms. Continued testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements. Continued on-going prototype testing. Addressed emerging SOF-unique requirements					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus. Continued maritime communication headset solicitation. ***FY 2016 Plans:*** Initiate research and development of a land communications material solution, safety belt and lanyard solicitations, arctic capability gap solutions, and subsurface operations equipment. Continue materials testing. ***FY 2017 Base Plans:*** Continues research and development of land communications material solutions, arctic uniform capability gap solutions, and initiates jungle uniform capability gap solutions. Continues materials testing and incorporation into commodity lines. Begins signature management evaluations.					
Title: TCCC ***FY 2015 Accomplishments:*** Provided test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Continued evaluation, airworthiness certification and miniaturization of TCCC CASEVAC components. Supported system prototype development, testing and research on advanced tactical medical equipment to lessen battlefield losses, with the goal of transitioning these medical technology items to a program of record. ***FY 2016 Plans:*** Provide for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Support the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC. Develop and test water resistant solutions for maritime operations of components within the CASEVAC. ***FY 2017 Base Plans:*** Provides for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC program. Supports the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC program. Develops and tests water resistant solutions for maritime operations of components within the CASEVAC set. Supports the re-compete of the CASEVAC program.	0.542	0.389	0.396	-	0.396
Title: RC-IED ***FY 2015 Accomplishments:***	1.042	0.965	1.707	-	1.707

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Provided National Assessment Group (NAG) test support to the Counter RC-IED program. Supported system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintained test range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. ***FY 2016 Plans:*** Provide for NAG test support to the Counter RC-IED program. Support system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintain test range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Initiate development and testing of ECM systems capability and advanced software technique countermeasures. ***FY 2017 Base Plans:*** Continues NAG test support to the Counter RC-IED program. Supports system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintains range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Continues development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Initiates open architecture development to increase efficiency of sharing software and firmware solutions across multiple industry original equipment manufacturer (OEM) vendors and government organizations.					
Accomplishments/Planned Programs Subtotals	2.471	2.649	2.577	-	2.577

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems<$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

SPEAR primarily takes advantage of modified commercial-off-the-shelf (COTS) or non-developmental items (NDI) through open competition.

TCCCE-CASEVAC takes advantage of COTS equipment and/or NDI.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

RC-IED uses evolutionary development of hardware and software capabilities, leveraging collaborative development with Government Agencies and Industry partners.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirements (SPEAR) - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.100	0.092	Feb 2015	0.139	Jan 2016	0.083	Jan 2017	-		0.083	Continuing	Continuing	-
SPEAR - Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.040	-		-		-		-		-	0	0.040	-
SPEAR - Modular Integrated Communications Helmet/Land Maritime Communication System	Various	PM-SSES : Natick, MA	0.220	0.230	Mar 2015	0.415	Jan 2016	0.129	Jan 2017	-		0.129	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.035	-		-		-		-		-	0	0.035	-
		Subtotal	0.395	0.322		0.554		0.212		-		0.212	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - PCU testing/P3I	Various	PM/SSES : Natick, MA	0.135	0.051	Jan 2015	0.070	Mar 2016	0.040	Feb 2017	-		0.040	Continuing	Continuing	-
SPEAR - Signature Management Profile Characteristics	Various	PM-SSES : Natick, MA	0.065	0.063	Jan 2015	0.097	Feb 2016	0.064	Jan 2017	-		0.064	Continuing	Continuing	-
SPEAR - MGS Testing	Various	PM-SSES : Natick, MA	0.025	0.023	Feb 2015	0.043	Feb 2016	0.044	Jan 2017	-		0.044	Continuing	Continuing	-
SPEAR - Maritime Comms Testing	Various	PM-SSES : Natick, MA	0.440	0.414	Feb 2015	0.503	Jan 2016	0.089	Jan 2017	-		0.089	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Testing	Various	PM-SSES : Natick, MA	0.020	0.014	Jan 2015	0.028	Feb 2016	0.025	Jan 2017	-		0.025	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Combat Casualty Care CASEVAC Sets	Various	PM-SSES : Natick, Ma	0.087	0.542	Feb 2015	0.389	Mar 2016	0.396	Feb 2017	-		0.396	Continuing	Continuing	-
Counter Radio Controlled-Improvised Explosive Device Test Support	Various	National Assessment Group : Kirtland AFB, NM; Sierra Nevada Corp; Folsom, CA	1.028	1.042	Dec 2014	0.965	Jan 2016	1.707	Jan 2017	-		1.707	Continuing	Continuing	-
		Subtotal	1.800	2.149		2.095		2.365		-		2.365	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.195	2.471		2.649		2.577		-		2.577	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

SOF Personal Equipment Advanced Requirements (SPEAR) Schedule

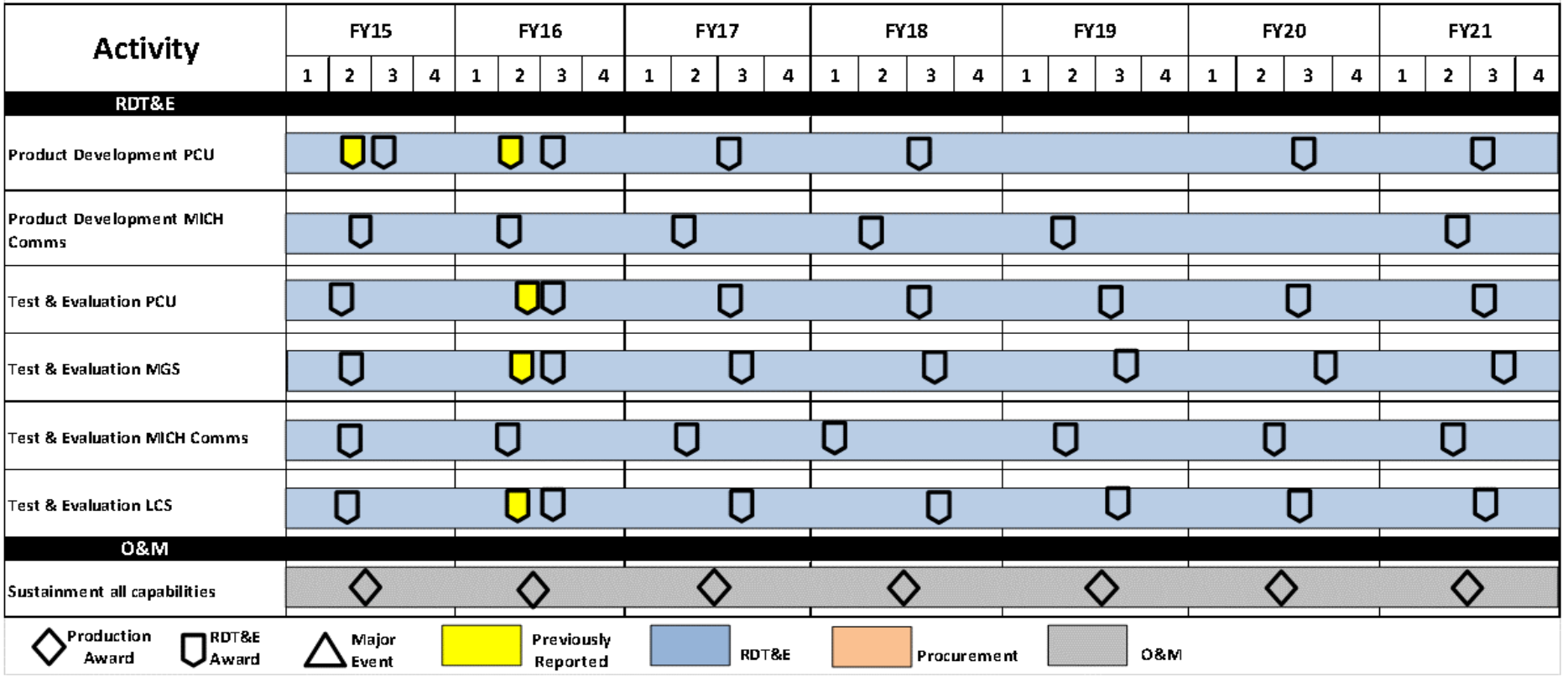

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Tactical Combat Casulaty Care (TCCC)

Schedule

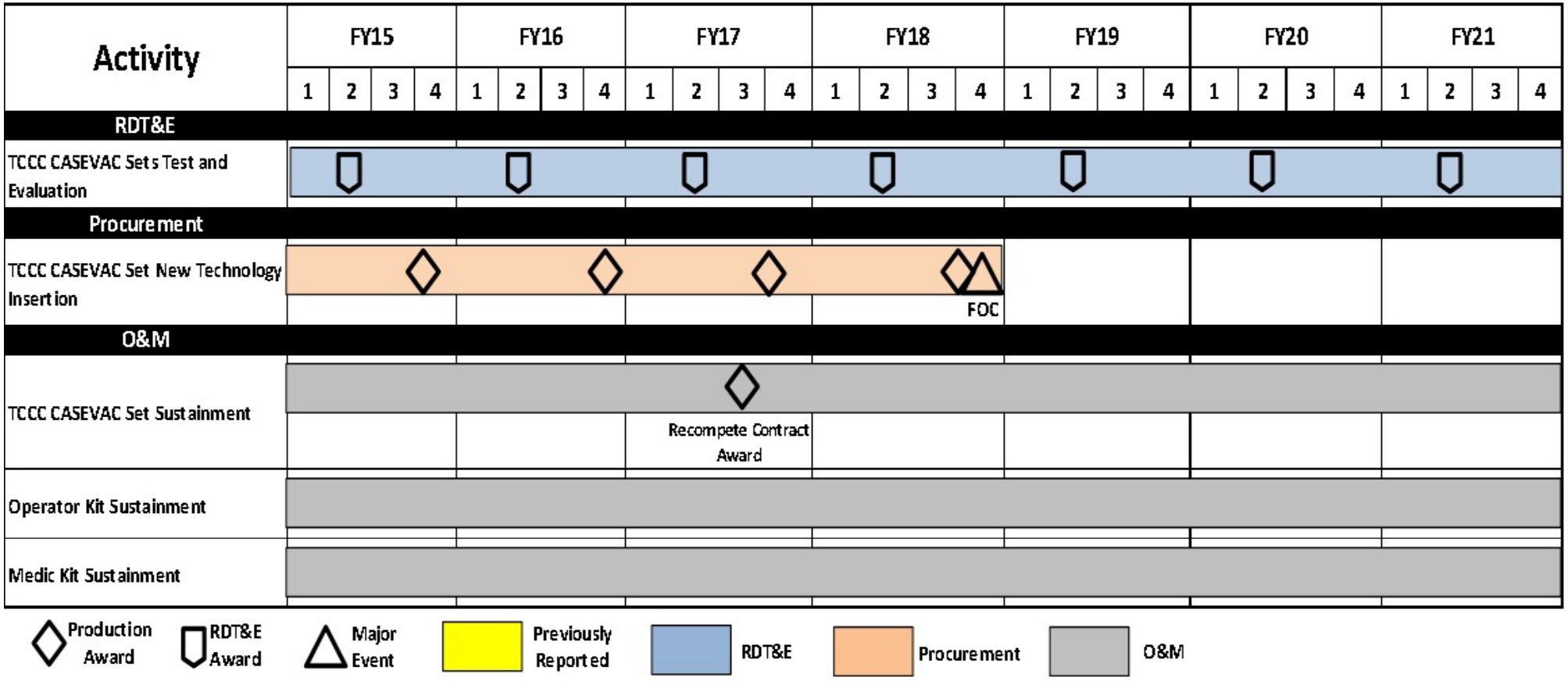

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Counter Radio Controlled – Improvised Explosive Device (RC-IED) Schedule

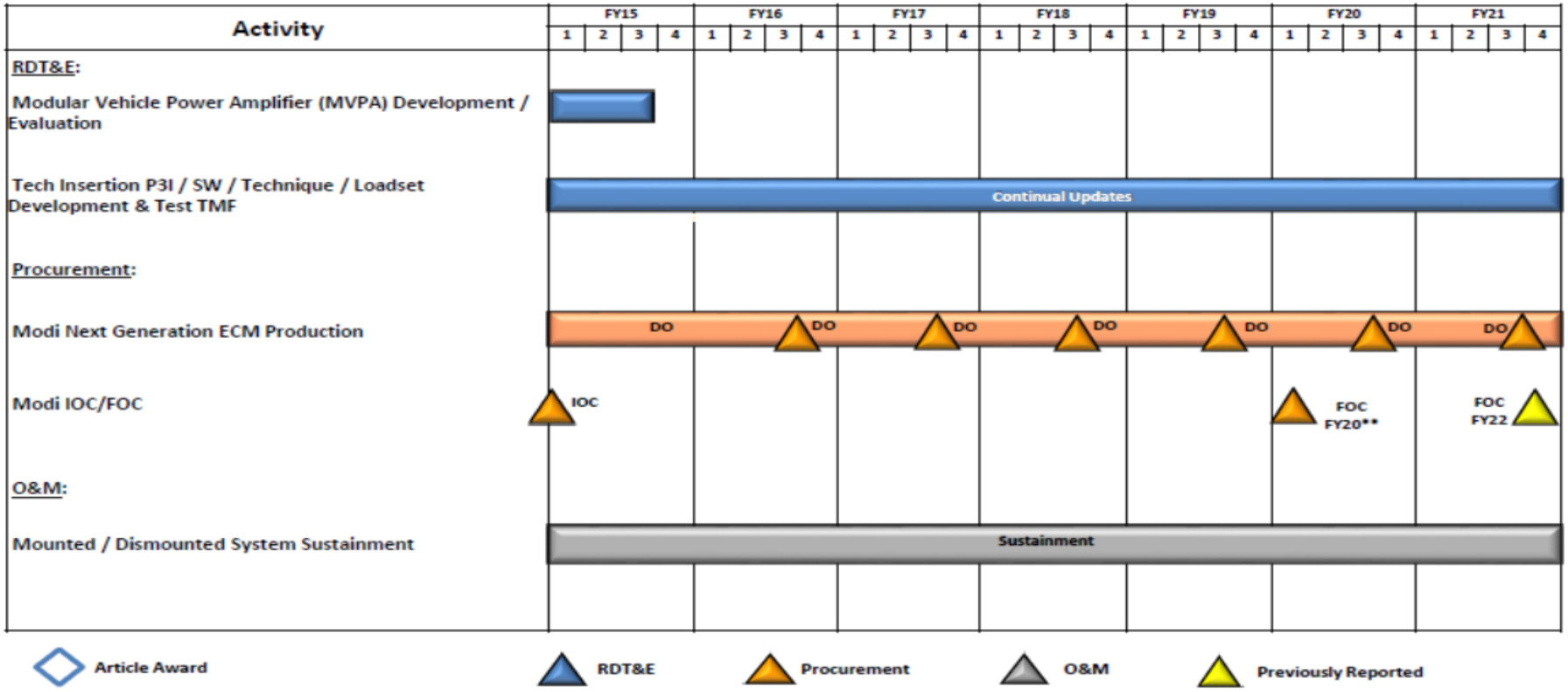

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SPEAR-Protective Combat Uniform (PCU)				
PCU Testing/Development	3	2015	4	2021
SPEAR-Signature Management				
Signature Management Profile Characterization	2	2015	4	2021
SPEAR-Modular Glove System				
Test	2	2015	2	2021
SPEAR-MICH Comms				
Market Research/Interoperability Assessment	2	2015	4	2021
SPEAR-Maritime Comms				
Various tests	2	2015	4	2021
SPEAR-Load Carriage System/Vests and Backpacks				
Material Research and Prototype testing	2	2015	4	2021
Tactical Combat Casualty Care Evacuation Kits -CASEVAC				
Prototype development testing and Airworthiness Certification	2	2015	4	2021
Radio Controlled-Improvised Explosive Device				
National Assessment Group Test Support	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S385A: *Body Armor and Associated Equipment*	1.750	1.909	1.354	1.339	-	1.339	1.289	1.289	1.636	1.669	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.

This project enhances the SOF Personal Equipment Advanced Requirement (SPEAR) program by supporting body armor plates, soft 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. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SPEAR-Ballistic Protection	1.909	1.354	1.339	-	1.339
FY 2015 Accomplishments: Continued foreign ammunition testing and threat validation to assess armor effectiveness. Research and tested soldier worn sensors. Continued lightweight body armor material research and improved performance ballistic plates. Continued evaluation of transparent armor products which include ballistic and optical testing of photochromic, electrochromic and laser lenses. Continued work on anti-fogging technologies and testing. Addressed emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus.					
FY 2016 Plans: 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, anti-fogging, ballistic, and laser lenses to upgrade systems that have been fielded. Develop and test soldier worn sensors to upgrade armor systems that have been fielded and to refine SOF peculiar					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
requirements. Address emerging SOF-unique requirements as SOF transitions from deployments in Iraq and Afghanistan to a global focus.					
FY 2017 Base Plans: 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 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. Initiates selection of maritime crewman helmet.					
Accomplishments/Planned Programs Subtotals	1.909	1.354	1.339	-	1.339

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems<$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

SPEAR ballistic protection equipment takes advantage of modified commercial-off-the-shelf or non-developmental items acquired through full and open competition. Currently these SPEAR purchases are made with the O&M appropriation. USSOCOM requirements are different from those of the Services, items leveraged from industry are often on the cutting edge of technology and require substantial testing in the SOF environments. Some SPEAR ballistic systems have transitioned to the U.S. Army, other services and other government agencies.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	0.350	0.290	Feb 2015	0.324	Jan 2016	0.370	Feb 2017	-		0.370	-	-	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	0.300	0.586	Jan 2015	0.269	Jan 2016	0.312	Jan 2017	-		0.312	-	-	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.030	0.030	Feb 2015	0.150	Mar 2016	0.119	Apr 2017	-		0.119	-	-	-
		Subtotal	0.680	0.906		0.743		0.801		-		0.801	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - Body Armor	Various	PM-SSES : Natick, MA	0.735	0.240	Jan 2015	0.211	Feb 2016	0.180	Feb 2017	-		0.180	-	-	-
SPEAR - Lightweight Ballistic Helmet	Various	PM-SSES : Natick, MA	0.300	0.715	Jan 2015	0.350	Feb 2016	0.318	Jan 2017	-		0.318	-	-	-
SPEAR - Transparent Armor	Various	PM-SSES : Natick, MA	0.035	0.048	Mar 2015	0.050	Jan 2016	0.040	Feb 2017	-		0.040	-	-	-
		Subtotal	1.070	1.003		0.611		0.538		-		0.538	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.750	1.909		1.354		1.339		-		1.339	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

SOF Personal Equipment Advanced Requirements (SPEAR) - Body Armor Schedule

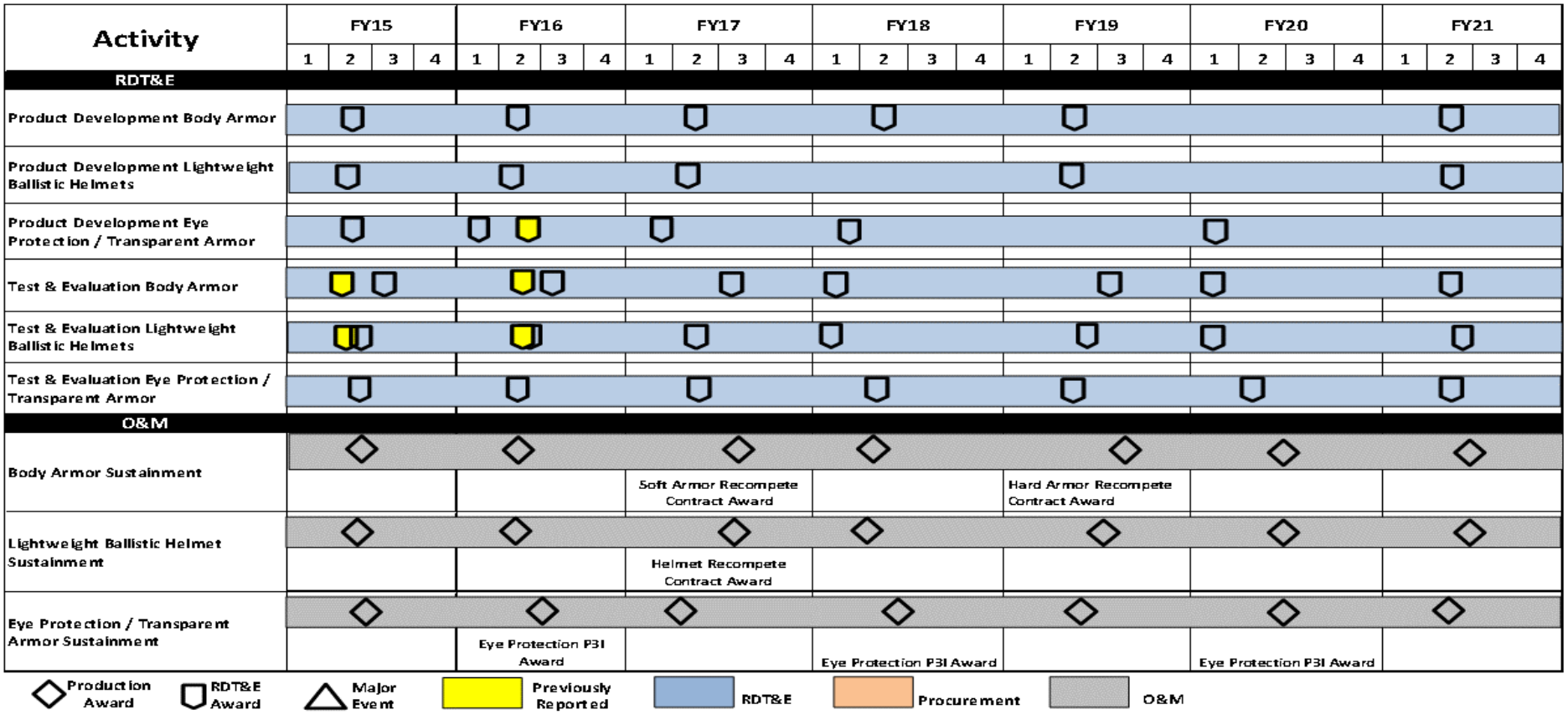

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Personal Equipment Advanced Requirements (SPEAR)-Body Armor				
Body Armor Development	2	2015	4	2021
Body Armor Material Testing	3	2015	4	2021
SPEAR-Helmet				
Lightweight Ballistic Helmet Development	2	2015	4	2021
Lightweight Ballistic Helmet Materials Testing	2	2015	4	2021
SPEAR Eye Protection				
Eye Protection Development	1	2015	4	2021
Transparent Armor Development	1	2015	4	2021
Transparent Armor Testing	2	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
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*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S395: *Visual Augmentation, Lasers and Sensor Systems*	0.000	1.422	2.189	1.482	-	1.482	1.517	1.546	1.575	1.602	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, and accessories to meet the unique requirements of SOF. Sensor technology being developed includes image intensification (I2) thermal imaging, short wave infrared (SWIR), 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. These projects ensure SOF systems shall remain technologically superior to enemy threats to ensure mission success.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Visual Augmentation Systems	1.422	2.189	1.482	-	1.482
FY 2015 Accomplishments: Continued the development of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.					
FY 2016 Plans: Continue to develop visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.					
FY 2017 Base Plans: Completes development and begins testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.					
Accomplishments/Planned Programs Subtotals	1.422	2.189	1.482	-	1.482

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems<$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
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*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

Develop prototypes for the next generation SOF operator borne visual augmentation devices. These developmental efforts will leverage Science and Technology projects to develop prototype systems for SOF to evaluate. VAS will award an Indefinite Delivery Indefinite Quantity production contract.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
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*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Visual Augmentation Systems (VAS) Development	C/CPFF	USSOCOM : Tampa, FL	0.000	1.422	Jan 2015	2.189	Nov 2015	1.282	Jan 2017	-		1.282	0.000	4.893	-
		Subtotal	0.000	1.422		2.189		1.282		-		1.282	0.000	4.893	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VAS Testing	C/CPFF	USSOCOM : Tampa, FL	0.000	0.000		0.000		0.200	Jul 2017	-		0.200	Continuing	Continuing	-
		Subtotal	0.000	0.000		0.000		0.200		-		0.200	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.422		2.189		1.482		-		1.482	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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*

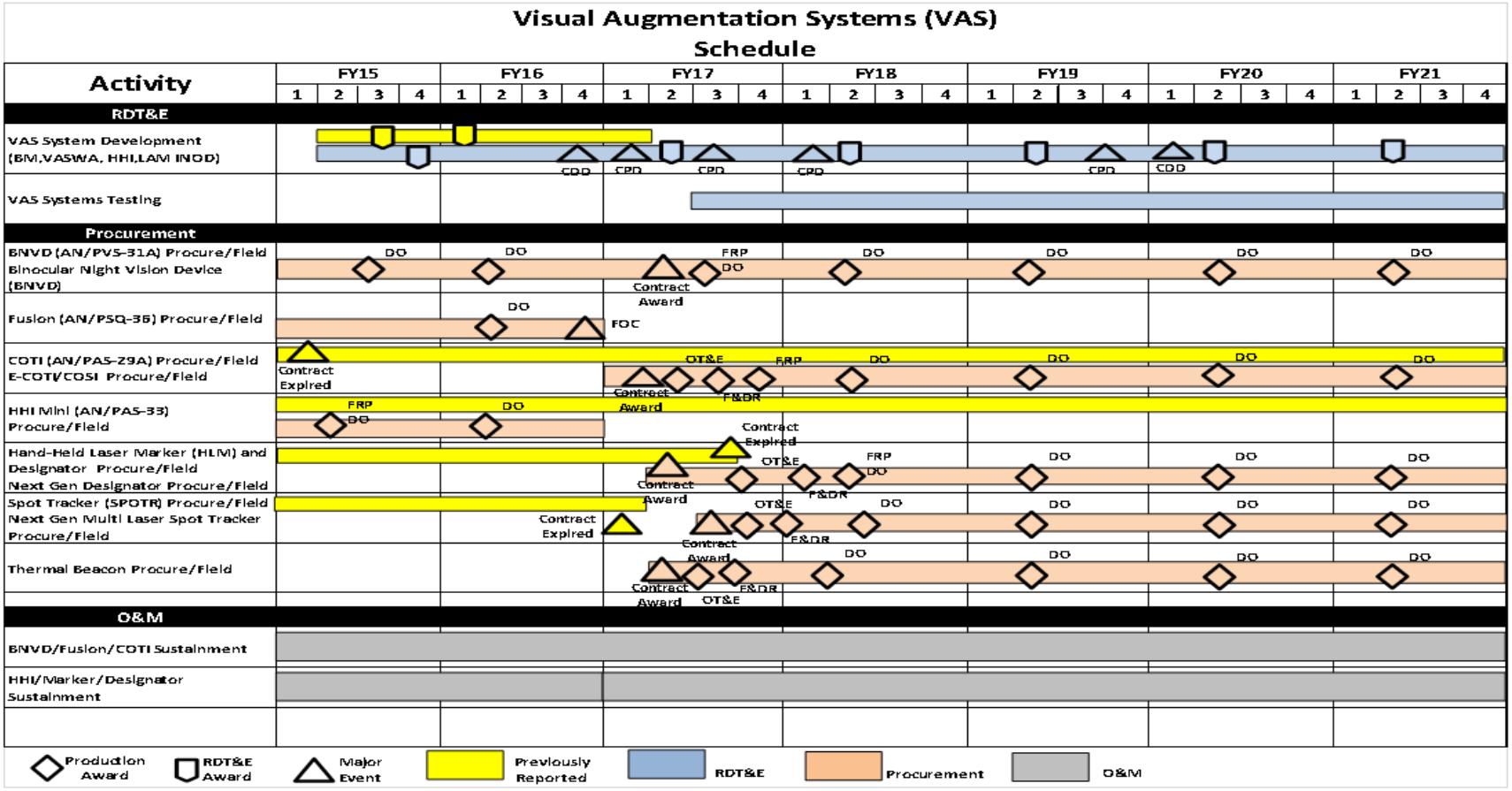

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S395 / *Visual Augmentation, Lasers and Sensor Systems*

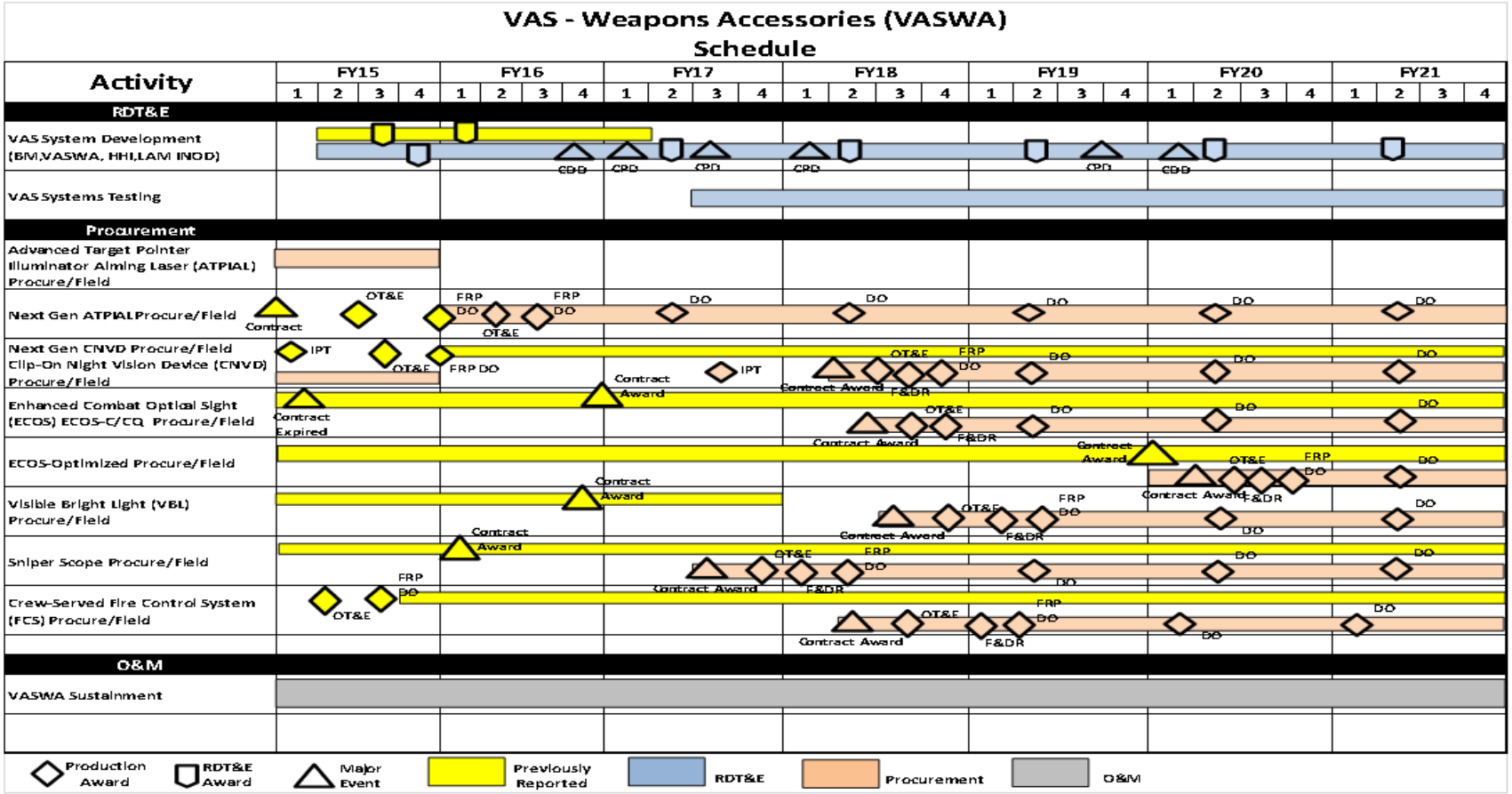

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S395 / *Visual Augmentation, Lasers and Sensor Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Visual Augmentation System (VAS)				
VAS Development	2	2015	1	2017
VAS Testing	4	2017	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S700: *Communications Equipment and Electronics Systems*	3.264	4.098	5.740	9.373	-	9.373	7.864	8.003	9.484	9.664	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 Special Operations Forces (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.

USSOCOM's C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information 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 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.

• SOF Deployable Node (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 tele-conferencing (VTC), and full motion video at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and capital equipment replacement.

• Civil Information Management (CIM). The CIM Data Processing System (CIMDPS) is an automation system that assists active Civil Affairs and others engaged in civil-military operations to collect, process, analyze, maintain, mine, and deliver Civil Information and analysis products in support of military operations.

• The Special Communications (SPCOM) Enterprise program, formerly justified as the Special Communication Enterprise (SCE) 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SDN	2.319	2.606	2.940	-	2.940
FY 2015 Accomplishments: Assessed, tested and evaluated advanced antenna design and performance with focus on wideband SATCOM for ground-mobile and integration into maritime platforms. Conducted market research on multi-level security					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
solutions for SDN application. Conducted testing using wideband global SATCOM and Global Express. Assessed Advanced Extremely High Frequency band. Assessed wideband satellite-on-the-move for ground-mobile. Tested and modified SDN systems for maritime use and maritime integration. Optimized size, weight and performance for SDN systems. ***FY 2016 Plans:*** Assess, test and evaluate advance antenna design and performance. Continue to integrate Evolutionary Technology Insertions (ETIs). ***FY 2017 Base Plans:*** Assesses, tests, and evaluates advanced antenna design and performance. Continues ETI integration. Assesses, tests, and evaluates design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment.					
Title: CIM ***FY 2017 Base Plans:*** Begins development and integration of new capability in support of Civil Affairs (CA) communities.	-	-	1.847	-	1.847
Title: SPCOM ***FY 2015 Accomplishments:*** Continued segment development for the SPCOM enterprise; developed means and methods to provide near-term impact to operators. Conducted independent verification and validation. ***FY 2016 Plans:*** Continue segment development for the SPCOM enterprise; develop means and methods to provide near-term impact to operators. Increase emphasis on developing anti-intrusion/anti-tamper capabilities. Conduct independent verification and validation. ***FY 2017 Base Plans:*** Continues segment development for the SPCOM enterprise; develops means and methods to provide near-term impact to operators. Continues development of anti-intrusion/anti-tamper capabilities. Conducts independent verification and validation.	1.779	3.134	4.586	-	4.586
Accomplishments/Planned Programs Subtotals	4.098	5.740	9.373	-	9.373

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems<$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing
• PROC/0204OTHER: *OTHER ITEMS <$5M*	103.833	79.149	66.436	11.580	78.016	56.623	70.531	69.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

• SDN is a fielded program with ETIs into all variants: heavy, medium, and light, wideband SATCOM-On-The-Move, Mobile SOF Strategic Entry Point, and airborne Intelligence Surveillance Reconnaissance transport variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

• CIM has an evolutionary acquisition strategy to enhance its capability to meet the CA communities emerging requirements.

• SPCOM is an ETI effort to provide and support multiple field segment kits. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Deployable Node (SDN) Development	MIPR	Various : Various	1.092	1.113	Mar 2015	1.396	Mar 2016	1.535	Mar 2017	-		1.535	Continuing	Continuing	-
Civil Information Management (CIM)	TBD	TBD : TBD	-	-		-		1.847	Mar 2017	-		1.847	Continuing	Continuing	-
Special Communications (SPCOM) Enterprise Capability Development	TBD	Various : Various	1.633	1.228	Jan 2015	2.566	Feb 2016	3.780	Mar 2017	-		3.780	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	0.270	0.276	Dec 2014	0.284	Dec 2015	0.504	Dec 2016	-		0.504	Continuing	Continuing	-
		Subtotal	2.995	2.617		4.246		7.666		-		7.666	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SDN Market Research & Evaluation	MIPR	Naval Research Lab (NRL) : Washington, D.C.	0.000	1.206	Jan 2015	1.210	Dec 2015	1.405	Dec 2016	-		1.405	Continuing	Continuing	-
SPCOM Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.269	0.275	Mar 2015	0.284	Mar 2016	0.302	Mar 2016	-		0.302	Continuing	Continuing	-
		Subtotal	0.269	1.481		1.494		1.707		-		1.707	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.264	4.098		5.740		9.373		-		9.373	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

SOF Deployable Node (SDN) Schedule

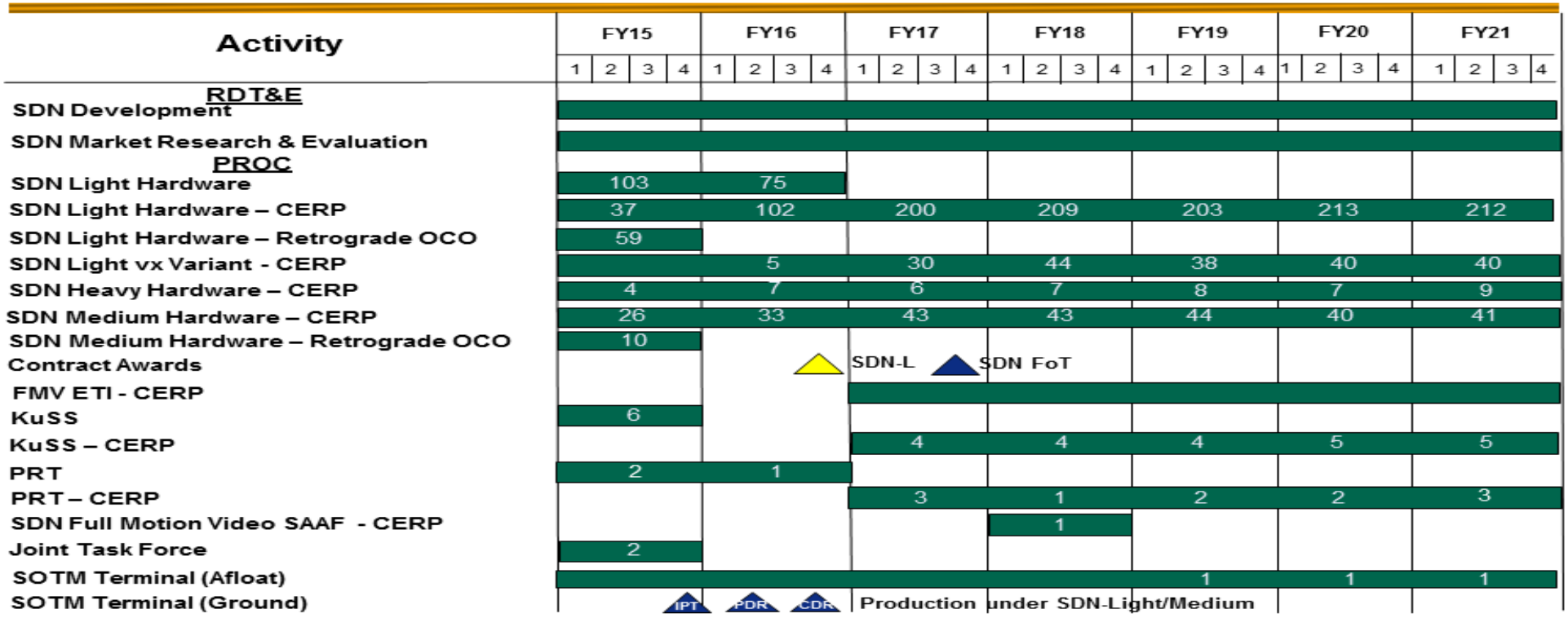

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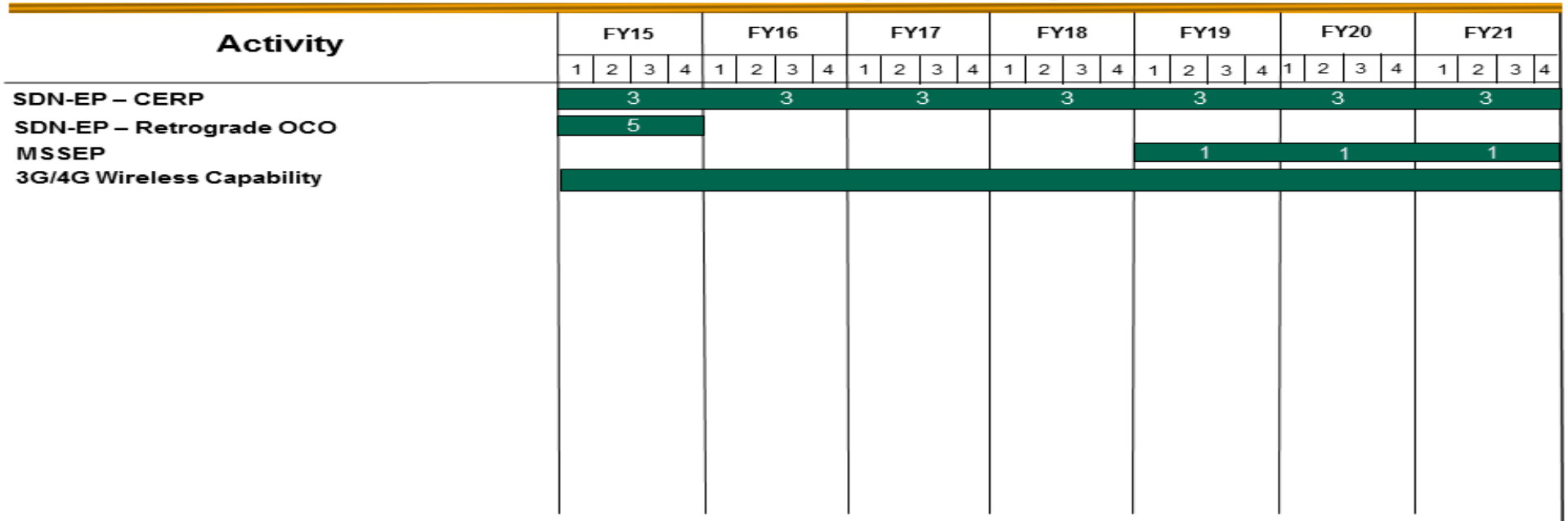
Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

SDN
Schedule (cont.)

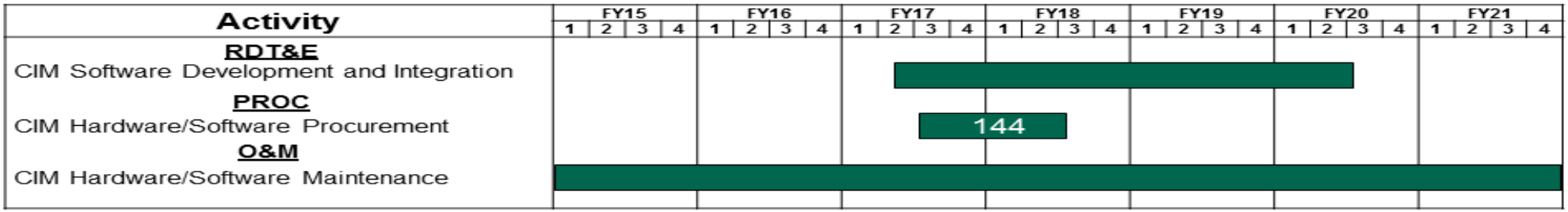


LEGEND:
CERP – Capital Equipment Replacement Program **OCO** – Other Contingency Operations **FMV** – Full Motion Video **FoT** – Family of Terminals
ETI – Evolutionary Technology Insertions **KuSS** – Ku Spread Spectrum **PRT** – Predator Reaper Terminal **SOTM** – Satellite on the Move

4

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

Civil Information Management (CIM) Schedule



Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

Special Communications Enterprise

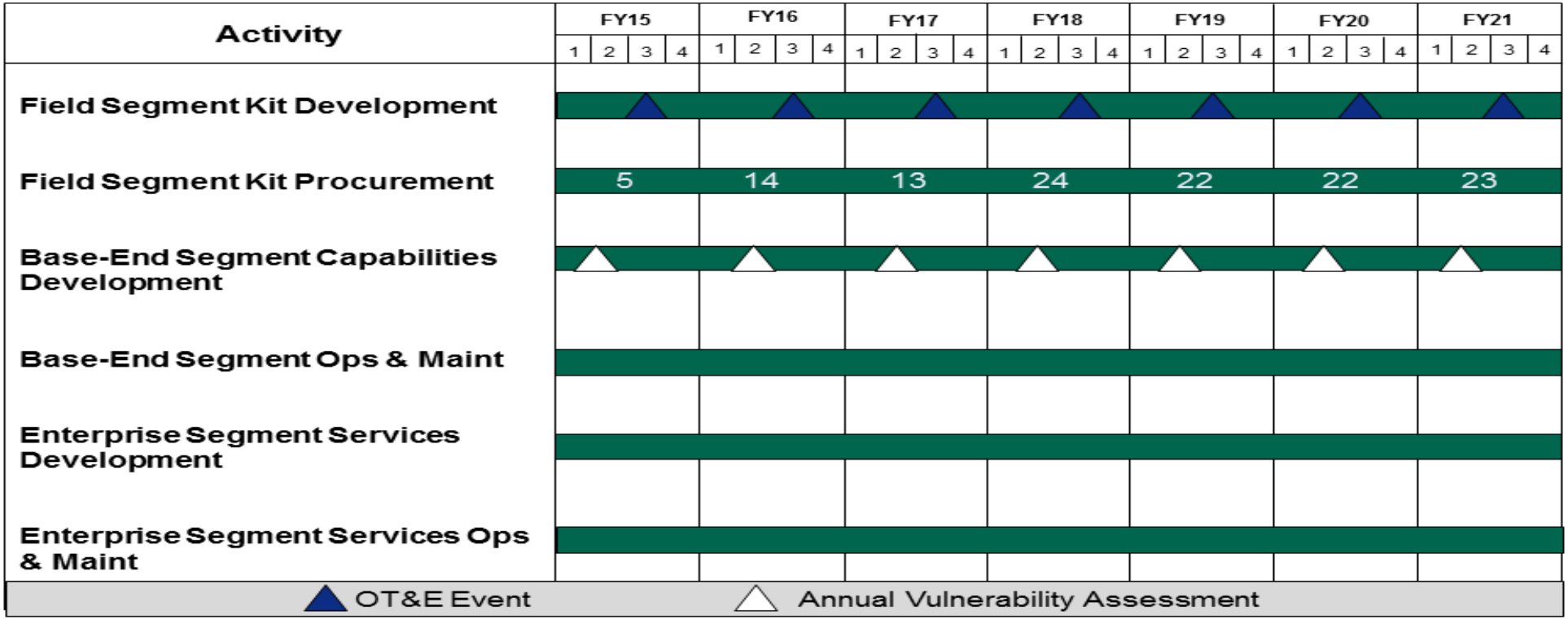

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Deployable Node				
SOF Deployable Node (SDN) Development	2	2015	4	2021
SDN Market Research and Testing	2	2015	4	2021
CIVIL INFORMATION MANAGEMENT (CIM)				
CIM Software Development	2	2017	2	2020
Special Communications (SPCOM) Enterprise Program				
Field Segment Kit Development	1	2015	4	2021
Base-End Segment Capabilities Development	1	2015	4	2021
Enterprise Segment Services Development	1	2015	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S710 / *Tactical Systems Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S710: *Tactical Systems Development*	0.243	0.930	0.868	2.640	-	2.640	2.416	2.523	3.031	3.083	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.

- The Tactical Local Area Network (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 TACLN consists of Suites, Mission Planning Kits and Field Computing Devices, Coalition Local Area Network, and Full Motion Video Kits.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: TACLAN Suites	0.930	0.868	2.640	-	2.640
FY 2015 Accomplishments: Began integration and testing of Evolutionary Technology Insertion (ETI) for Secure Data At Rest, secure wireless and cross domain solutions.					
FY 2016 Plans: Continue integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.					
FY 2017 Base Plans: Continues integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions. Begins assessing, testing and evaluating the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment.					
Accomplishments/Planned Programs Subtotals	0.930	0.868	2.640	-	2.640

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204OTHER: *OTHER ITEMS <$5M*	103.833	79.149	66.436	11.580	78.016	56.623	70.531	67.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

The TACLAN program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational test, and acceptance support.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S710 / *Tactical Systems Development*	

Test and Evaluation ($ in Millions)

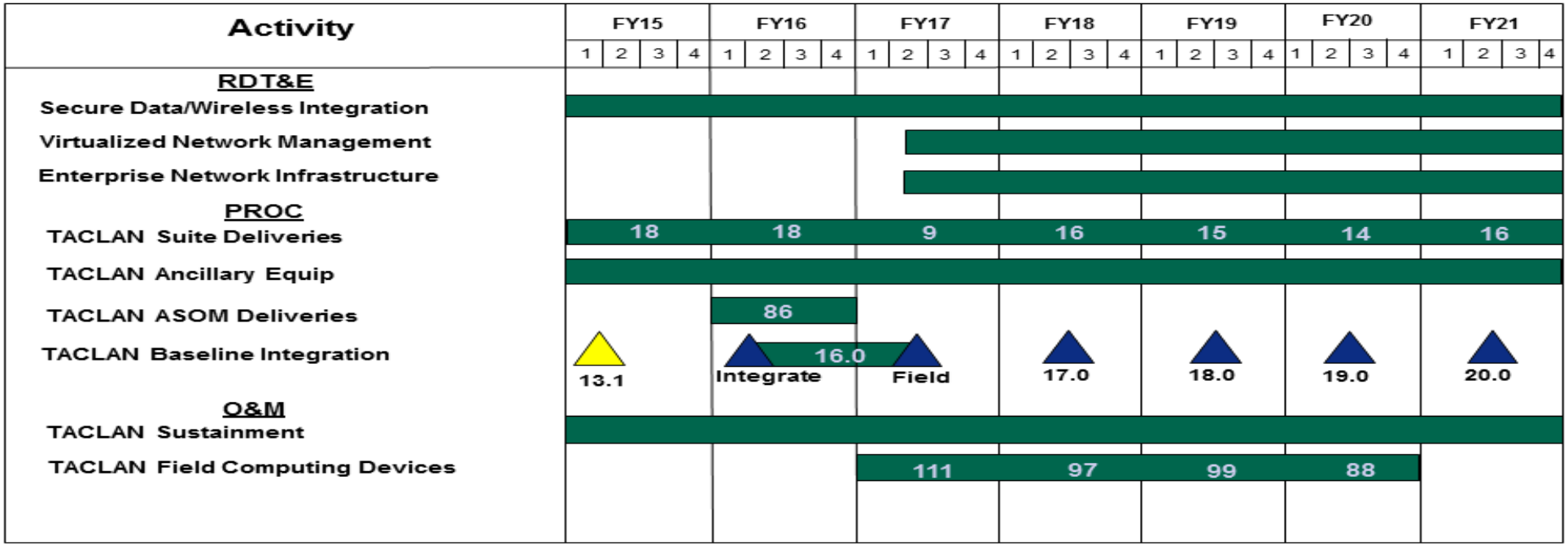
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Secure Data / Wireless Capability	Reqn	iGov : Tampa, FL	0.243	0.930	May 2015	0.868	Jan 2016	0.890	Jan 2017	-		0.890	Continuing	Continuing	-
Virtualized Network Management	MIPR	CERDEC : Aberdeen, MD	-	-		-		0.910	Mar 2017	-		0.910	Continuing	Continuing	-
Enterprise Network Infrastructure	MIPR	NAVAIR : Paxtuxant River, MD	-	-		-		0.840	Feb 2017	-		0.840	Continuing	Continuing	-
		Subtotal	0.243	0.930		0.868		2.640		-		2.640	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.243	0.930		0.868		2.640		-		2.640	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

TACLAN Schedule



Previously Reported

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TACLAN SUITES				
Secure Data / Wireless Capability Test and Evaluation	3	2015	4	2021
Virtualized Network Management Test and Evaluation	2	2017	4	2021
Enterprise Network Infrastructure Test and Evaluation	2	2017	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S725: *Tactical Radio Systems*	1.811	4.777	2.170	3.884	-	3.884	3.683	4.892	5.219	1.880	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is for the development of all SOF tactical radio programs. Tactical Radios provide the critical Command, Control, Communications (C3) 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 foreign forces. Tactical Radios, which includes SOF Tactical Communications, and Blue Force Tracking (BFT), rapidly and seamlessly establish and maintain mobile and fixed Command and Control (C2) communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SOF Tactical Communications (STC) ***FY 2015 Accomplishments:*** Developed and tested new capability in tactical radio equipment. ***FY 2016 Plans:*** Develop and test new capability in tactical radio equipment. ***FY 2017 Base Plans:*** Continues to develop and test new capability in tactical radio equipment.	2.841	1.653	3.812	-	3.812
Title: BFT ***FY 2015 Accomplishments:*** Developed and tested new capability in BFT equipment. ***FY 2016 Plans:*** Continue to develop and test new capability in BFT equipment. ***FY 2017 Base Plans:*** Continues development of new capability in BFT equipment.	1.936	0.517	0.072	-	0.072
Accomplishments/Planned Programs Subtotals	4.777	2.170	3.884	-	3.884

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: *Warrior Systems<$5M*	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

• STC is a Commercial-Off-The-Shelf/Non-Development Item program with evolutionary technology insertions (ETIs). Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

• BFT is a fielded program with ETIs leveraging commercial and other government agency sources for required certifications, functional and operational tests, and technology updates.

E. Performance Metrics

N/A.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Tactical Communications Radio Development	MIPR	Various : Various	1.811	2.841	Jan 2015	1.653	Jan 2016	3.812	Jan 2017	-		3.812	Continuing	Continuing	-
Blue Force Tracking Development	MIPR	Various : Various	0.000	1.936	Apr 2015	0.517	Nov 2015	0.072	Jan 2017	-		0.072	Continuing	Continuing	-
		Subtotal	1.811	4.777		2.170		3.884		-		3.884	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.811	4.777		2.170		3.884		-		3.884	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

A/MH-6M Block 3.0 Upgrade Schedule

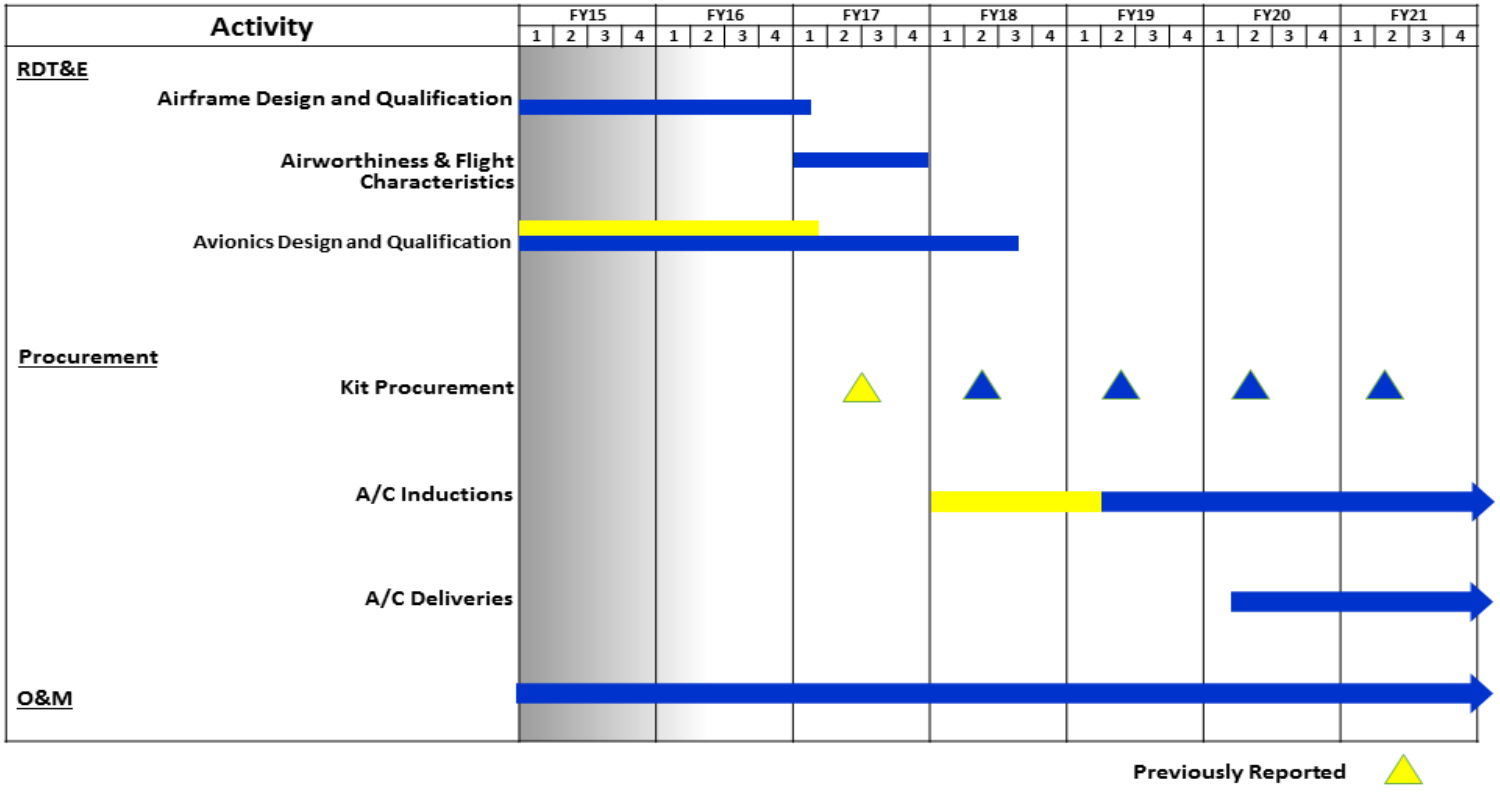

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

BFT Schedule

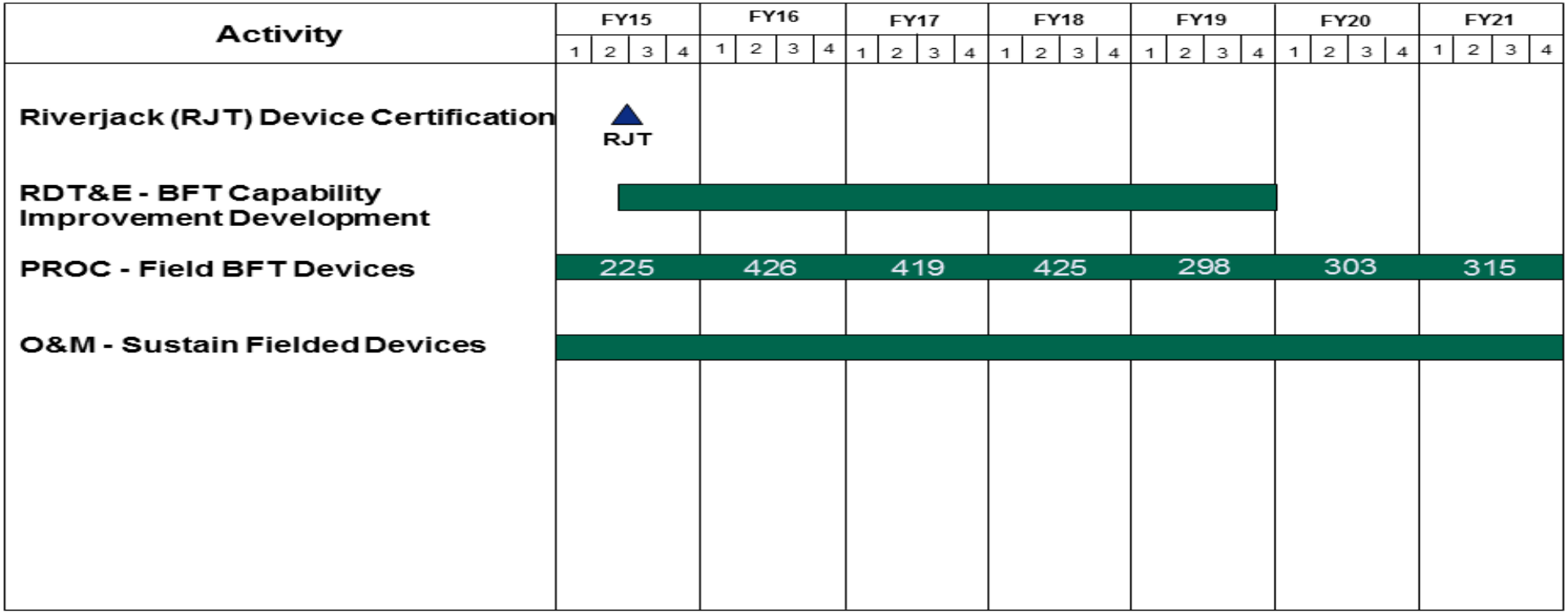

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Tactical Communications (STC)				
STC Radio Development	2	2015	4	2021
Blue Force Tracking (BFT)				
BFT Capability Improvement Development	3	2015	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S800 / *Munitions Advanced Development*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S800: *Munitions Advanced Development*	3.386	0.733	10.948	17.398	-	17.398	5.491	0.537	0.538	0.549	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 munitions and equipment to meet the unique requirements of SOF.

Munitions Advanced Development. This 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 United States Special Operations IM Testing Plan. Munitions product improvements are tested in accordance with command priorities.

Stand-Off Precision Guided Munitions (SOPGM). Provides for the integration and testing of service-common munitions on SOF-unique platforms. This project received a congressional add in FY 2016.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Munitions Advanced Development	0.733	0.448	0.525	-	0.525
FY 2015 Accomplishments: Conducted proof of concept and IM testing on various munitions. Continued full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
FY 2016 Plans: Conduct proof of concept 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 Non-Nuclear Munition, 26 Sep 2006).					
FY 2017 Base Plans: Conducts proof of concept and IM testing on various munitions. Conduct SDB II flight test integration for SOF. Continues full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
Title: Stand-Off Precision Guided Munitions (SOPGM)	-	-	16.873	-	16.873
FY 2017 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continues integration and testing of service-common precision guided munitions on SOF platforms.					
Accomplishments/Planned Programs Subtotals	0.733	0.448	17.398	-	17.398

	FY 2015	FY 2016
Congressional Add: Stand-Off Precision Guided Munitions (SOPGM)	-	10.500
FY 2016 Plans: Begins integration and testing of the Small Glide Munition (SGM) precision guided weapon on SOF platforms.		
Congressional Adds Subtotals	-	10.500

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0203ORDN: *Ordnance Items <$5M*	169.737	210.033	105.267	52.504	157.771	112.821	124.858	134.615	144.476	Continuing	Continuing

Remarks

D. Acquisition Strategy

Munitions Advanced Development: Munitions and packaging redesign shall take place within government laboratories, as well as in industry, depending on the munitions. IM solutions shall be tested on a small scale for proof of principle. Plan product improvements are tested at Army, Navy, and Air Force test centers.

SOPGM: Integration and developmental testing of service-common precision guided munitions will be conducted using government laboratories or industry partners depending on the munitions for various SOF platforms.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Munitions - Insensitive Munitions (IM) Evaluation	C/FFP	US Air Force Air Armaments Center : Eglin, AFB, FL	0.050	0.073	Jan 2015	0.057	Oct 2015	0.065	Nov 2016	-		0.065	Continuing	Continuing	-
Munitions - IM Testing	Allot	ARDEC: : Picatinny Arsenal, NJ	0.278	0.463	Jan 2015	0.250	Oct 2015	0.325	Nov 2016	-		0.325	Continuing	Continuing	-
Munitions Advanced Development - Obtain Munitions Test Articles	C/FFP	General Dynamics: : Canada	0.125	0.197	Jan 2015	0.141	Oct 2015	0.135	Nov 2016	-		0.135	Continuing	Continuing	-
Stand-Off Precision Guided Munitions	Allot	Various : Various	2.933	-		-		16.873	Jan 2017	-		16.873	Continuing	Continuing	-
Stand-Off Precision Guided Munitions Congressional Add	Allot	Various : Various	-	-		10.500	Apr 2016	-		-		-	Continuing	Continuing	-
		Subtotal	3.386	0.733		10.948		17.398		-		17.398	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.386	0.733		10.948		17.398		-		17.398	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

Munitions Advanced Development Schedule

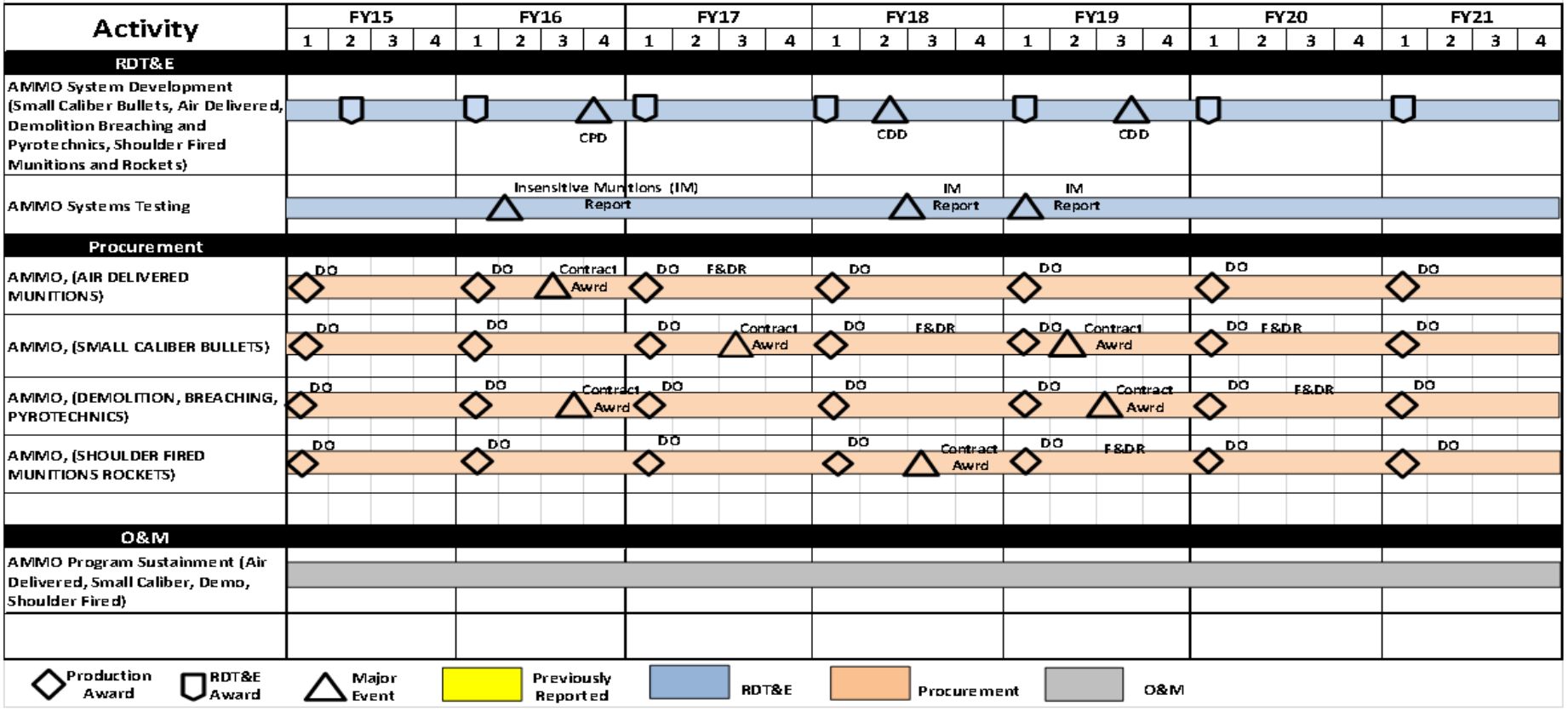

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

SOPGM Schedule

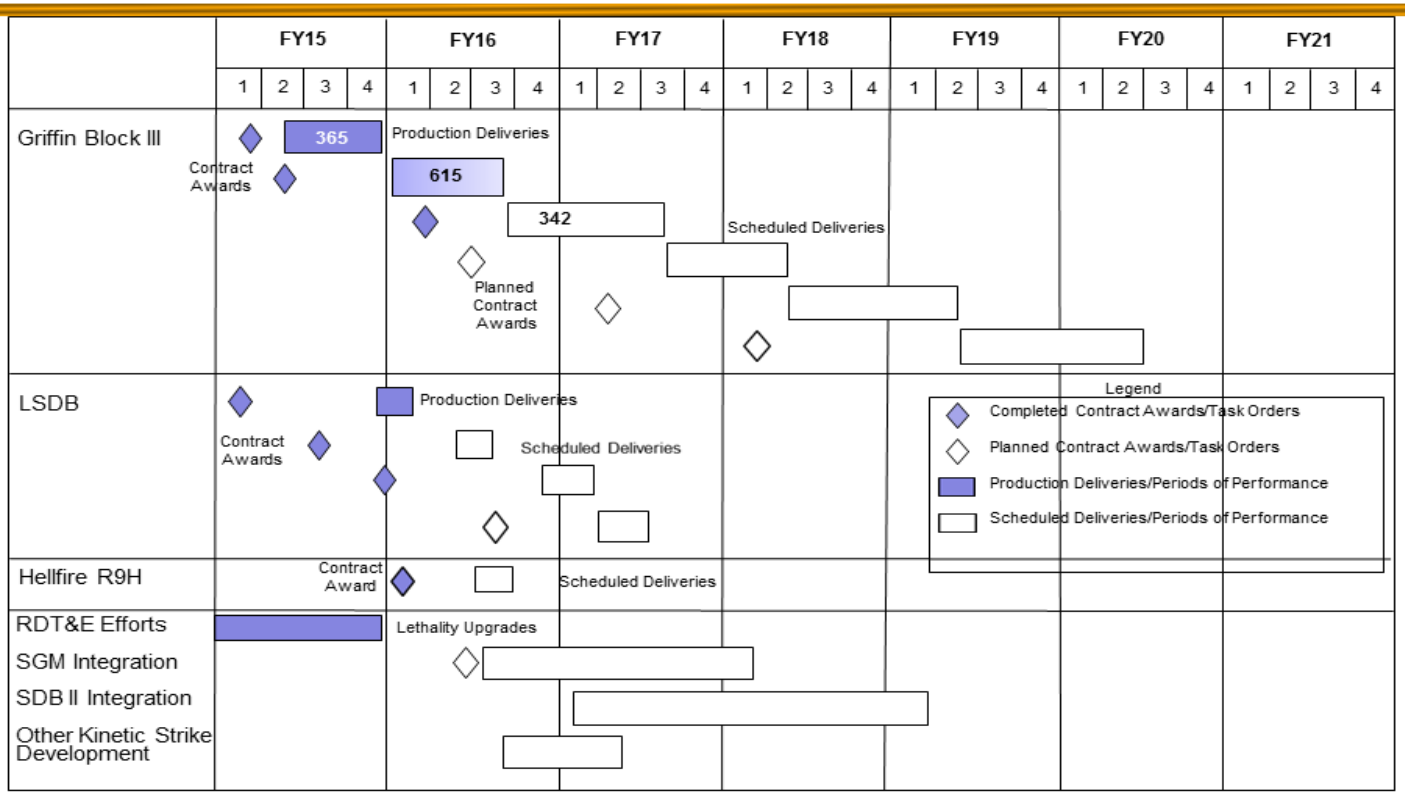

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Munitions				
Insensitive Munitions Evaluation	2	2015	4	2021
Munitions Testing	2	2015	4	2021
Purchase Test Articles	2	2015	4	2021
Stand-Off Precision Guided Munitions				
Evaluate Lethality Upgrades/Integration on SOF Platforms	2	2017	4	2018
Integration and Testing of the Small Glide Munition Precision Guided Weapon on SOF Platforms.	3	2016	3	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	7.185	19.887	3.401	1.949	-	1.949	1.978	1.678	1.711	1.746	Continuing	Continuing
S500E: *Special Programs*	7.185	19.887	3.401	1.949	-	1.949	1.978	1.678	1.711	1.746	Continuing	Continuing

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. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	20.908	3.401	1.964	-	1.964
Current President's Budget	19.887	3.401	1.949	-	1.949
Total Adjustments	-1.021	0.000	-0.015	-	-0.015
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.343	-			
• SBIR/STTR Transfer	-0.678	-			
• Other Adjustments	-	-	-0.015	-	-0.015

Change Summary Explanation

Funding:

FY2015: Decrease of $1.021 million is due to a decrease of $0.678 million for SBIR/STTR transfers, and a decrease of $0.343 million for higher command priorities.

FY2016: None.

FY2017: Details of $0.015 million decrease is available under separate cover.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command											Date: February 2016	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160432BB / *Special Programs*				Project (Number/Name) S500E / *Special Programs*			
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
S500E: *Special Programs*	7.185	19.887	3.401	1.949	-	1.949	1.978	1.678	1.711	1.746	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Other Classified Programs	19.887	3.401	1.949
Description: Program details available under separate cover document. ***FY 2015 Accomplishments:*** Program details available under separate cover document. ***FY 2016 Plans:*** Program details available under separate cover document. ***FY 2017 Plans:*** Program details available under separate cover document.			
Accomplishments/Planned Programs Subtotals	19.887	3.401	1.949

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Program acquisition strategy available under separate cover documents.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160432BB / *Special Programs*	Project (Number/Name) S500E / *Special Programs*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Classified Programs	TBD	Various : Various	7.185	19.887		3.401		1.949		-		1.949	Continuing	Continuing	-
		Subtotal	7.185	19.887		3.401		1.949		-		1.949	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.185	19.887		3.401		1.949		-		1.949	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*	**Project (Number/Name)** S500E / *Special Programs*

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Other Classified Programs																												
Other Classified Programs																												

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*	**Project (Number/Name)** S500E / *Special Programs*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Other Classified Programs				
Other Classified Programs	1	2015	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	22.117	-	22.117	24.766	25.060	25.492	28.964	Continuing	Continuing
S855: *Unmanned ISR*	-	0.000	0.000	22.117	-	22.117	24.766	25.060	25.492	28.964	Continuing	Continuing

A. Mission Description and Budget Item Justification

NOTE: Beginning in FY 2017 Unmanned ISR represents the approved consolidation of Special Applications for Contingencies Program Element (PE) 0304210BB; MQ-1 Unmanned Aerial Vehicle (UAV), PE 0305219BB; MQ-8 PE 0305231BB; RQ-11 UAV PE 1105232BB; and RQ-7 UAV, PE 1105233BB.

This program element is part of the Military Intelligence Program (MIP). Develops and deploys special capabilities to perform Intelligence, Surveillance, and Reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means. USSOCOM has been designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. 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 Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) capabilities for SOF.

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 on the related ground control stations. SAFC develops and integrates UAS payloads to advance ISR capabilities to address dynamic and emergent operational needs of the SOF user. Efforts include improving imagery/signals intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	22.117	-	22.117
Total Adjustments	0.000	0.000	22.117	-	22.117
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	22.117	-	22.117

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*

Change Summary Explanation

Funding:

FY 2015: None.

FY 2016: None.

FY 2017: The net increase of $22.117 million is due to the FY 2017 approved consolidation of the Unmanned ISR program element (PE) which includes Special Applications for Contingencies PE 0304210BB ($18.037 million); MQ-1 Unmanned Aerial Vehicle (UAV), PE 0305219BB; MQ-8 PE 0305231BB; RQ-11 UAV PE 1105232BB ($4.384 million); and RQ-7 UAV, PE 1105233BB, a reduction by the Department to account for prior year execution balances (-$0.142 million), and a Departmental economic assumption decrease (-$0.162 million).

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160434BB / *Unmanned ISR*	Project (Number/Name) S855 / *Unmanned ISR*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S855: *Unmanned ISR*	-	0.000	0.000	22.117	-	22.117	24.766	25.060	25.492	28.964	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

NOTE: Beginning in FY 2017, Unmanned ISR represents the approved consolidation of Special Applications for Contingencies Program Element (PE) 0304210BB; MQ-1 Unmanned Aerial Vehicle (UAV), PE 0305219BB; MQ-8 PE 0305231BB; RQ-11 UAV PE 1105232BB; and RQ-7 UAV, PE 1105233BB.

This project is part of the Military Intelligence Program (MIP). Develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means.

Special Applications for Contingencies (SAFC). Provides for efforts to develop and integrate Unmanned Aerial Systems (UAS) payloads to advance ISR capabilities to address dynamic and emergent operational needs of the SOF user. Efforts include improving imagery/signals intelligence and electronic warfare payloads, capitalizing on developing technologies to reduce size, weight and power while addressing processing and data management challenges. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. SAFC applies focused Research & Development (R&D) for relatively low cost solutions to provide short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets.

Group 1 UAS. Group 1 UAS are small tactical systems, less than 20 pounds in weight. Provides for development efforts to identify, develop, integrate, and test Special Operations Forces (SOF) unique mission kits. The FY 2017 funding was reduced by $0.142 million to account for the availability of prior year execution balances.

Group 2 UAS. Group 2 UAS are medium tactical systems, between 21 pounds and 55 pounds in weight. Provides for development efforts to identify, develop, integrate, and test SOF-unique mission kits.

Group 3 UAS. Group 3 UAS are large tactical systems that weigh less than 1,320 pounds and fly less than flight level 180.

Group 4 UAS. 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. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SAFC	-	-	17.875	-	17.875
FY 2017 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continues development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short-notice requirements. Continues to evaluate unique sensor technologies, persistent stare and quick reaction systems.					
Title: Group 1 UAS (Previously justified as Small Unmanned Aerial System) ***FY 2017 Base Plans:*** Continues to integrate, and test 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.	-	-	0.124	-	0.124
Title: Group 2 UAS (Previously justified as Multi-mission Tactical Unmanned Aerial System) ***FY 2017 Base Plans:*** Continues to integrate, and test SOF-unique mission capabilities to the medium tactical UAS, to include but not limited to; signals intelligence gathering, full motion video, and geo-location.	-	-	4.118	-	4.118
Accomplishments/Planned Programs Subtotals	-	-	22.117	-	22.117

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0201UMISR: *Unmanned ISR*	-	-	21.190	11.880	33.070	12.555	6.877	6.980	7.443	Continuing	Continuing
• PROC/0809RQ11: *RQ-11 Unmanned Aerial Vehicle*	6.397	15.587	-	-	-	-	-	-	-	0.000	21.984
• PROC/1108MQ1: *MQ-1 Unmanned Aerial Vehicle*	-	1.934	-	-	-	-	-	-	-	0.000	1.934
• PROC/1108STU: *Small Tactical Unmanned Aerial System*	1.500	1.514	-	-	-	-	-	-	-	0.000	3.014

Remarks

D. Acquisition Strategy

SAFC acquisition strategy utilizes existing competed contract vehicles for minor development and integration and modification of Government Off The Shelf/Contractor Off The Shelf (GOTS/COTS) equipment. It utilizes limited/full and open competition contracts for major developments.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

The Group 1 UAS are evolutionary acquisition programs that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, weapons, air vehicle enhancements, and ground control station upgrades. 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).

Group 2 UAS are evolutionary acquisition programs that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, weapons, air vehicle enhancements, and ground control station upgrades. 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 OEM.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160434BB / *Unmanned ISR*	Project (Number/Name) S855 / *Unmanned ISR*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Platform/Payload Development and Integration	MIPR	Various : Various	-	-		-		8.911	Mar 2017	-		8.911	Continuing	Continuing	-
Group 1 Unmanned Aerial System (UAS) Payloads	C/IDIQ	Various : Various	-	-		-		0.124	Mar 2017	-		0.124	Continuing	Continuing	-
Group 2 UAS Platform/ Payloads Development	C/TBD	Various : Various	-	-		-		2.059	Mar 2017	-		2.059	-	-	-
		Subtotal	-	-		-		11.094		-		11.094	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Platform/Payload Integration	MIPR	Various : Various	-	-		-		0.600	Jan 2017	-		0.600	-	-	-
Group 2 UAS Platform/ Payload Support	C/TBD	Various : Various	-	-		-		0.617	Mar 2017	-		0.617	-	-	-
		Subtotal	-	-		-		1.217		-		1.217	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Sensor Testing, Evaluation and Demonstration	MIPR	Various : Various	-	-		-		7.291	Mar 2017	-		7.291	-	-	-
Group 2 UAS Platform/ Payload Test and Evaluation	C/TBD	Various : Various	-	-		-		0.825	Mar 2017	-		0.825	-	-	-
		Subtotal	-	-		-		8.116		-		8.116	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160434BB / *Unmanned ISR*	Project (Number/Name) S855 / *Unmanned ISR*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SAFC Sensor Testing, Evaluation and Demonstration Management	MIPR	Various : Various	-	-		-		1.073	Mar 2017	-		1.073	-	-	-
Group 2 UAS Platform/ Payload Mqnqgement	C/TBD	Various : Various	-	-		-		0.617	Mar 2017	-		0.617	-	-	-
		Subtotal	-	-		-		1.690		-		1.690	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		0.000		22.117		-		22.117	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

SAFC Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
RDT&E																												
Payload Development/Integration																												
Sensor Testing, Evaluation and Demonstration																												
Procurement																												
Puma II Unmanned Aerial System	3				3				3				3				3				3				2			
O&M																												
Flight Support/Program Management																												

Previously Reported

1

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

Group 1 Unmanned ISR Schedule

(Previously referred to as SUAS)

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
RDT&E – Group 1 identifies, integrates, and tests SOF – unique mission kits, mission payloads, air vehicle announcements and mods on the Group 1 UAS and related ground control stations.	Payload Integration																											
PROC - Group 1 System Delivery	11				10				13				5				5				5				5			
Silent Echo 10.6 Integration/Fielding									Various																			
O&M - Sustainment	Life Cycle Sustainment of Group 1 and Payloads																											

Previously Reported

1

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

Group 2 Unmanned Aerial System Schedule

(Previously referred to as MTUAS)

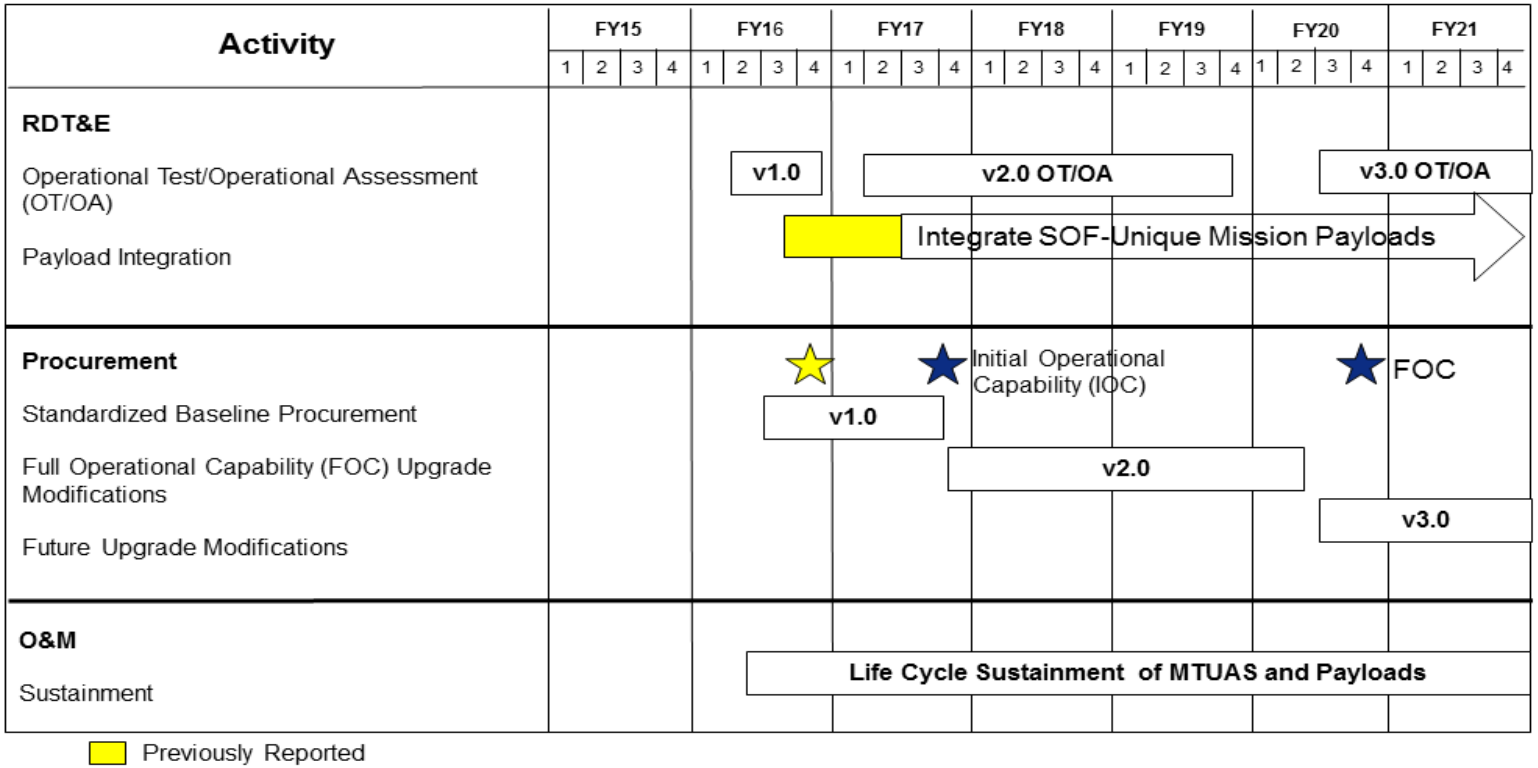

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160434BB / *Unmanned ISR*	**Project (Number/Name)** S855 / *Unmanned ISR*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SAFC				
Platform/Payload Development and Integration	1	2015	4	2021
Sensor Testing, Evaluation and Demonstration	1	2015	4	2021
Group 1 Unmanned Aerial System (UAS)				
Payload Integration, and Test	2	2015	4	2021
Group 2 UAS				
Operational Test/Operational Assessment (OT/OA)	2	2016	4	2021
Payload Integration	2	2017	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	28.494	3.553	3.212	3.316	-	3.316	2.578	2.624	2.677	2.730	Continuing	Continuing
S910: *SOF Tactical Vehicles*	28.494	3.553	3.212	3.316	-	3.316	2.578	2.624	2.677	2.730	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for the development and testing of a variety of incremental upgrades to Special Operations Forces (SOF) Vehicles and ancillary equipment. Current SOF tactical vehicles include: Lightweight Tactical All Terrain Vehicles (Light), Ground Mobility Vehicles (Medium), Non-Standard Commercial Vehicles (Commercial) for use in tactical missions, and Mine Resistant Ambush Protected Vehicles (Heavy). 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.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.672	3.212	3.341	-	3.341
Current President's Budget	3.553	3.212	3.316	-	3.316
Total Adjustments	-0.119	0.000	-0.025	-	-0.025
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.119	-			
• Other Adjustments	-	-	-0.025	-	-0.025

Change Summary Explanation

Funding:

FY 2015: Decrease of -$0.119 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Research Transfer programs.

FY 2016: None.

FY 2017: Decrease of -$0.025 million is due to Departmental economic assumption decrease.

Schedule: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160480BB / *SOF Tactical Vehicles*	Project (Number/Name) S910 / *SOF Tactical Vehicles*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S910: *SOF Tactical Vehicles*	28.494	3.553	3.212	3.316	-	3.316	2.578	2.624	2.677	2.730	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops, tests, and evaluates Special Operations vehicles and modifications. The Special Operations Forces (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: individual mobility vehicles, light mobility vehicles, medium mobility vehicles, non-standard commercial vehicles, and heavy mobility vehicles.

Family of Special Operations Vehicles (FSOV). This initiative provides for product improvements in the areas of suspension, power management, armor protection and unique vehicle design for all SOF tactical vehicle configurations. Designs must be standardized across all SOF Components that utilize a tactical vehicle. Improvements include, but are not limited to, new engineering change proposals (ECPs), field safety issues and theater endorsed requirements that make it essential to keep up with the increased weight and minimize the impact to mobility on the basic vehicle. FSOV develops, integrates and tests Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems in order to reduce space and power claim on vehicles and develop safety and engineering improvements that specifically address the enemy's changing tactics on the battlefield which typically focuses on survivability, force protection, or mobility. Specific efforts include but are not limited to: Ground Mobility Vehicle (GMV) Medium Version 1.1 effort which provides for a medium vehicle variant capable of meeting specific requirements of internal aircraft transport on the C/MH-47. The effort also provides for engineering costs related to performance, endurance, safety testing, integration and logistical analysis of product samples. Additionally, efforts include ECPs associated with the Non-Standard Commercial Vehicle (NSCV), the Lightweight Tactical All Terrain Vehicle (LTATV). These ECPs will address any identified safety, reliability, and performance concerns. Finally, funding will be used to support vehicle signature reduction efforts.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Family of Special Operations Vehicle	3.553	3.212	3.316	-	3.316
FY 2015 Accomplishments: Continued design/development and integration of ECPs that implement incremental upgrades and improve the design of the light and medium mobility vehicles to meet mission requirements. Funded Initial Operational Test and Evaluation (IOT&E) of the GMV 1.1 medium mobility vehicle which will be completed first quarter of FY16. Continued enhancements/modifications on the NSCV to improve reliability and survivability, with a focus on alternative rear axles and low visibility C4ISR antennas.					
FY 2016 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continue integration of ECPs that implement incremental upgrades and improve the design of the light and ground mobility vehicles (medium). Continue enhancements/modifications on the NSCV to improve reliability and survivability and engineering design changes. ***FY 2017 Base Plans:*** Continues design/development and integration of ECPs that implement incremental upgrades and improve the design of the light tactical all-terrain vehicles (LTATV), Ground Mobility Vehicles (GMV - medium), and NSCV, to include a C4 effort to incorporate a Chairman of the Joint Chiefs of Staff directed Global Positioning System upgrade to M-Code. Continues enhancements/modifications on the NSCV to improve reliability and survivability.					
Accomplishments/Planned Programs Subtotals	3.553	3.212	3.316	-	3.316

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204TACVEH: *Tactical Vehicles*	63.134	73.520	67.849	3.200	71.049	62.956	39.303	17.923	17.092	Continuing	Continuing

Remarks

D. Acquisition Strategy

Vehicle improvements integrate emerging technology or commercial-off-the-shelf/non-developmental items. Materiel solutions will be procured via existing contracts or through a competitive procurement.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV Ground Mobility Vehicles (GMV) 1.1 Medium and Non Standard Commercial Vehicle (NSCV) Engineering Change Proposal (ECP) Development	MIPR	Naval Air Systems Command : Patuxent River, MD	2.477	-		-		0.358	Nov 2016	-		0.358	0.000	2.835	-
FSOV GMV 1.1 Medium Enviro, simulation and modeling	WR	TARDEC : Warren, Michigan	0.090	0.050	Feb 2015	-		0.250	Nov 2016	-		0.250	Continuing	Continuing	-
FSOV GMV 1.1 Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	6.558	1.305	Jul 2015	2.297	Jun 2016	0.250	Apr 2017	-		0.250	Continuing	Continuing	-
FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development	C/FFP	Polaris Defense : MInneapolis, MN	0.381	-		0.312	Oct 2015	0.741	Mar 2017	-		0.741	Continuing	Continuing	-
FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction	MIPR	TBD : TBD	0.807	-		0.603	Jun 2016	1.717	Mar 2017	-		1.717	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	0.383	-		-		-		-		-	0.000	0.383	-
		Subtotal	10.696	1.355		3.212		3.316		-		3.316	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV GMV 1.1 Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	-	0.952	Jun 2015	-		-		-		-	0.000	0.952	-
FSOV LTATV ECP Development	C/FFP	Polaris Defense : MInneapolis, MN	-	0.187	Aug 2015	-		-		-		-	0.000	0.187	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160480BB / *SOF Tactical Vehicles*	Project (Number/Name) S910 / *SOF Tactical Vehicles*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV NSCV ECP	MIPR	HQ USSOCOM : Tampa, FL	-	0.500	Aug 2015	-		-		-		-	0.000	0.500	-
Prior Year Funding	Various	Various : Various	3.910	-		-		-		-		-	0.000	3.910	-
		Subtotal	3.910	1.639		-		-		-		-	0.000	5.549	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV GMV 1.1 Medium Initial Operational Test and Evaluation (IOT&E)	MIPR	Nevada Automotive Test Center : Carson City, NV	-	0.447	Jul 2015	-		-		-		-	0.000	0.447	-
Prior Year Funding	Various	Various : Various	13.888	-		-		-		-		-	0.000	13.888	-
FSOV GMV 1.1 Medium test support	MIPR	Nevada Automotive Test Center : Carson City, NV	-	0.112	Jun 2015	-		-		-		-	0.000	0.112	-
		Subtotal	13.888	0.559		-		-		-		-	0.000	14.447	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	28.494	3.553		3.212		3.316		-		3.316	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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

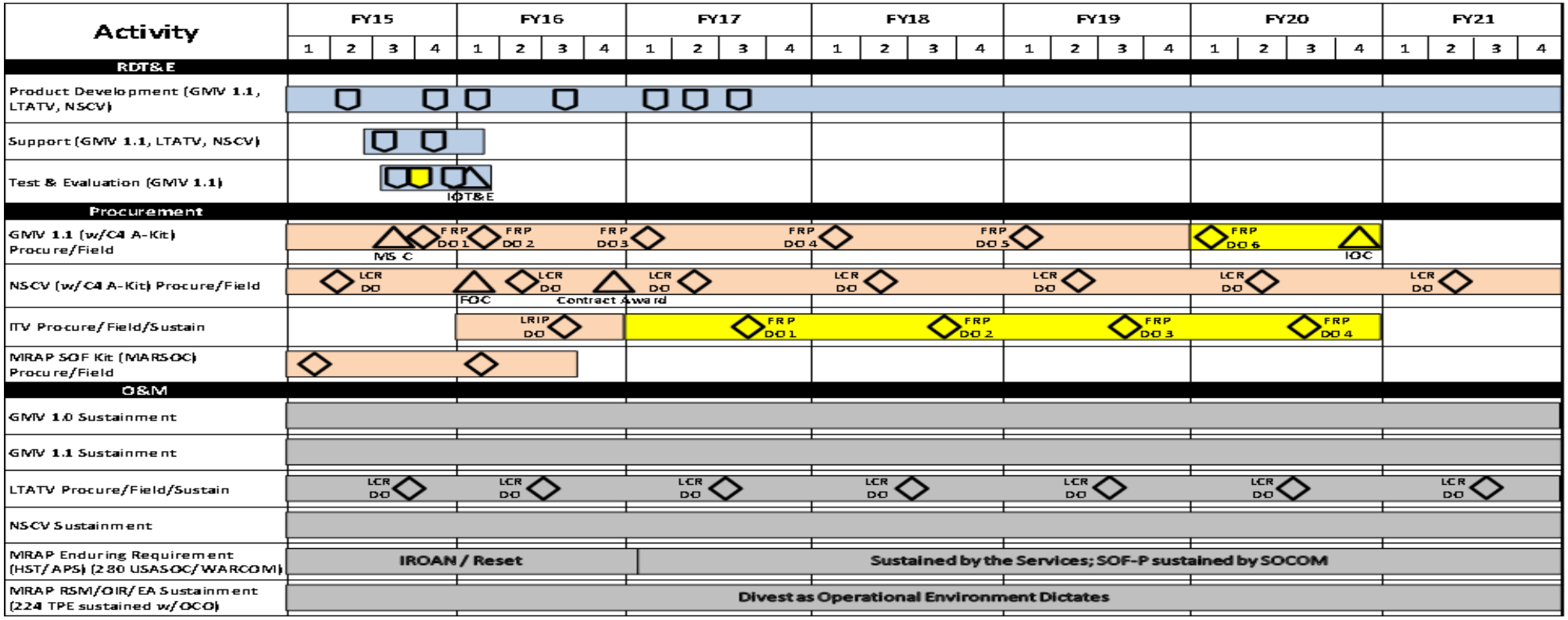

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FSOV GMV 1.1 Medium				
FSOV GMV 1.1 Medium Enviro, Simulation and Modeling	1	2015	4	2021
FSOV Lightweight Tactical All Terrain Vehicles (LTATV)				
FSOV LTATV ECP Development	1	2015	4	2021
FSOV GMV 1.1 Medium ECP Development and Support	1	2015	4	2021
FSOV GMV 1.1 Medium Initial Operational Test & Evaluation	4	2015	4	2016
FSOV GMV 1.1 Medium Test Support	3	2015	3	2016
FSOV Non-Standard Commercial Vehicles (NSCV)				
FSOV NSCV ECP Development/Signature Reduction and Support	3	2015	4	2021

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	228.283	58.656	59.597	54.577	-	54.577	29.451	11.193	12.857	13.101	Continuing	Continuing
S0417: *Underwater Systems*	221.211	48.086	52.328	50.150	-	50.150	25.295	6.527	6.063	6.185	Continuing	Continuing
S1684: *Surface Craft*	7.072	10.570	7.269	4.427	-	4.427	4.156	4.666	6.794	6.916	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for engineering and manufacturing development 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.

The Underwater Systems project provides for engineering and manufacturing development of combat submersibles, SOF operator diving systems, underwater support systems, and underwater equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component and prototype development) to respond to emergent 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.

The Surface Craft project provides for engineering and manufacturing development of medium and heavy surface combatant craft, combatant craft mission equipment, and pre-planned product improvement and technology insertion engineering changes 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	56.746	63.597	52.590	-	52.590
Current President's Budget	58.656	59.597	54.577	-	54.577
Total Adjustments	1.910	-4.000	1.987	-	1.987
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.750	-			
• SBIR/STTR Transfer	-1.840	-			
• Other Adjustments	-	-	1.987	-	1.987

Change Summary Explanation

Funding:

FY 2015: Net increase of $ 1.910 million is for a reprogramming of $3.680 million to support engineering and testing for the Shallow Water Combat Submersible, $0.070 million to support the contract award for the Next Generation Combatant Craft Forward Looking Infrared Radar, and a decrease of $ 1.840 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.

FY 2016: This program element was reduced due to a Congressional Directed Reduction of ($4.000) million to the Dry Combat Submersible program.

FY 2017: Net Increase of $1.987 million due to revised program strategy for the Combatant Craft Medium of $0.407 million increase, Combatant Craft Assault (previously High Speed Assault Craft) of $0.500 million increase, SOF Combat Diving of $1.490 million increase, and a decrease of ($0.410) million due to a Departmental economic assumption decrease.

Schedule: Due to delay in development and builder's trial of the DCS prototypes, further development and testing efforts were subsequently delayed into FY 2016 and FY 2017.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S0417: *Underwater Systems*	221.211	48.086	52.328	50.150	-	50.150	25.295	6.527	6.063	6.185	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for engineering and manufacturing development of combat underwater submersibles, Special Operations Forces (SOF) operator 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 emergent 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. Sub-projects include:

• Shallow Water Combat Submersible (SWCS): This sub-project provides for the engineering, manufacturing, testing, and development of one Engineering Developmental Model (EDM) to replace the SEAL Delivery Vehicle (SDV) system. The EDM is being developed due to obsolescence of the SDV system. This project will utilize mature technologies, which include electric propulsion along with upgraded navigation, communication, and sensor suites. It also provides for integration efforts with the current Dry Deck Shelter (DDS), development of engineering changes for SWCS production craft configuration, and integration of other diving technologies to meet SOF requirements.

• Dry Combat Submersible (DCS): This sub-project provides for the advanced engineering, manufacturing, testing, and development efforts for a surface-launched, dry, diver lock-in/lock-out vessel capable of inserting and extracting SOF and/or payloads into denied areas. USSOCOM will award an Engineering and Manufacturing Development contract in FY 2016 to produce one production representative vessel, with options to produce two additional vessels following testing. Current efforts leverage commercial practices to develop dry submersible prototypes to assess submersible capabilities and reduce risk in the DCS program. USSOCOM developed and is currently testing two submersible prototypes. USSOCOM has also conducted risk reduction efforts on a third leased vehicle to include validation of test processes, commercial classification processes, and development of the SOCOM safety certification process which permits SEALs to operate the vehicles. In addition, the prototypes are being and will continue to be used to evaluate capability enhancing technologies in a relevant environment. Technologies include, but are not limited to, safe Li-Ion batteries, silver zinc batteries, improved sonar systems, an advanced battery management system, and a three-dimensional Electro Optical Infrared (EO/ IR) sensor.

• DDS Modernization: This sub-project provides for the pre-planned product improvements, 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 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.

• SOF Combat Diving: This sub-project provides for the engineering, manufacturing, testing, development, and transition of SOF peculiar diving equipment providing the SOF combat diver the ability to engage the enemy and conduct operations. SOF Combat Diving will provide capabilities to USSOCOM components and will support

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

the SDV, SWCS, and DCS in 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, employment of weapons, diver navigational accuracy and situational awareness, thermal protection, and underwater communications.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: SWCS	19.981	7.596	0.950
FY 2015 Accomplishments: Completed EDM manufacturing and development and started developmental testing. Executed dry, pool, and open water testing. Obtained Milestone C approval.			
FY 2016 Plans: Continue EDM development testing, certification and government acceptance. Incorporate any necessary engineering design changes and modifications to meet key performance parameters.			
FY 2017 Plans: Completes EDM, including final logistics packages, develops and incorporates any engineering changes into SWCS production craft configuration as needed.			
Title: DCS	28.105	34.232	38.700
FY 2015 Accomplishments: Completed manufacturing, obtained commercial classification, and began testing of the two submersible prototypes. Achieved SOF Embarkation approval for leased vessel, validating process and enabling initial SOF pilot training and multiple lock-in/lock-out evolutions. Validated test plans and procedures for use with DCS. Completed testing of government-furnished EO/IR sensor, silver zinc battery, battery management system, and began initial testing of lithium ion battery. Battery development efforts have resulted in more than doubling the range of the leased vessel. Obtained Milestone B approval, conducted Industry Day, and released Request for Proposals for DCS program of record.			
FY 2016 Plans: Continue testing of lithium ion battery and begin characterization testing of the prototypes. Award an engineering and manufacturing development (EMD) contract for a production representative system.			
FY 2017 Plans: Continues EMD for DCS production representative system. Completes testing of the prototypes and initiates refit of one prototype submersible to be used as a training vessel.			
Title: DDS Modernization	-	10.000	8.500
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Begin development of the modernization necessary to extend useful life, transition from SSGN to Virginia Class host platform, and increase capacity to carry larger payloads. ***FY 2017 Plans:*** Continues development of the modernization necessary to extend useful life of the DDS, transitions from SSGN to Virginia Class host platform, and increases capacity to carry larger payloads.			
Title: SOF Combat Diving ***FY 2016 Plans:*** Begin development of SOF peculiar diving technologies for transition to the SOF combat diver for thermal protection to include free diver heating/cooling system, compact multi-diver heating system, and propulsion power interface. ***FY 2017 Plans:*** Continues thermal protection and man and unmanned testing. Begins development for situational awareness and underwater breathing apparatuses.	-	0.500	2.000
Accomplishments/Planned Programs Subtotals	48.086	52.328	50.150

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0210US: *Underwater Systems*	25.408	29.021	37.098	-	37.098	91.032	54.299	7.820	7.977	Continuing	Continuing

Remarks

D. Acquisition Strategy

• SWCS used full and open competition, with a down select to a single contractor. The full spectrum of contracting activities is being utilized for any integration and subsystem requirements, using existing contracts where appropriate, government agencies and new contracts as necessary.

• DCS performed risk reduction efforts on a leased vessel (S301i) to define future DCS program plans and procedures as well as used Broad Area Announcements for Research and Development contracts to design, build, and test prototypes (Button 5.60 and S351) to refine and validate key performance parameters and attributes for the future DCS, leveraging commercial technologies, practices, and safety classification standards. USSOCOM will solicit and award a competitive engineering and manufacturing development contract for a production representative system in FY16 and award two options for procurement vessels in FY18 and FY19.

• DDS Modernization will use existing DDS contracts to develop modernization efforts and execute configuration changes required to achieve performance requirements specified by the government.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

• SOF Combat Diving: The full spectrum of contracting activities is planned to be utilized, using existing contracts where appropriate, government agencies, and new contracts competitively selected as necessary.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Shallow Water Combat Submersible (SWCS)	C/CPIF	Teledyne Brown Engineering : Huntsville, AL	59.276	18.024	Aug 2015	7.000	Jan 2016	-		-		-	0.000	84.300	-
SWCS Engineering Changes	C/Various	Various : Various	-	-		-		0.950	Dec 2016	-		0.950	Continuing	Continuing	-
Dry Combat Submersibles (DCS) (Button 5.60 prototype)	C/Various	General Dynamic-Electric Boat : Groton, CT	25.403	0.635	Mar 2015	2.877	Jul 2016	-		-		-	0.000	28.915	-
DCS (S351 prototype)	C/Various	Submergence Group : Chester, CT	23.075	9.638	Sep 2015	0.953	Dec 2015	-		-		-	0.000	33.666	-
DCS Technologies (Government Furnished Equipment)	C/Various	Various : Various	19.552	7.907	Nov 2015	4.003	Feb 2016	7.377	Jun 2017	-		7.377	Continuing	Continuing	-
DCS (Engineering & Manufacturing Development)	C/Various	MacDill AFB : Tampa, FL	-	-		22.300	Jun 2016	25.723	Jun 2017	-		25.723	0.000	48.023	-
DCS Engineering Changes	C/Various	Various : Various	0.000	-		-		3.100	Jun 2017	-		3.100	Continuing	Continuing	-
Dry Deck Shelter (DDS) Modernization	SS/CPFF	Oceaneering International Inc. Marine Services Division : Chesapeake, VA	-	-		9.650	Nov 2015	8.197	Jan 2017	-		8.197	Continuing	Continuing	-
SOF-Peculiar Diving Technologies	Various	Various : Various	-	-		0.500	Mar 2016	1.500	Nov 2016	-		1.500	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	59.896	-		-		-		-		-	0.000	59.896	-
		Subtotal	187.202	36.204		47.283		46.847		-		46.847	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Funding	Various	Various : Various	9.094	-		-		-		-		-	0.000	9.094	-
		Subtotal	9.094	-		-		-		-		-	0.000	9.094	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS	Various	Puget Sound Naval Shipyard : Seattle, Washington	0.240	0.368	Jan 2015	0.596	Jan 2016	-		-		-	0.000	1.204	-
DCS	C/Various	NAVSEA / CRANE : Panama City, FL	1.700	7.307	Nov 2014	1.299	Nov 2015	-		-		-	0.000	10.306	-
SOF Combat Diving	Various	Various : Various	-	-		-		0.500	Nov 2017	-		0.500	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	9.320	-		-		-		-		-	0.000	9.320	-
		Subtotal	11.260	7.675		1.895		0.500		-		0.500	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS	Various	John Hopkins University : Columbia, MD	-	1.589	Mar 2015	-		-		-		-	0.000	1.589	-
DCS	Various	SRA : Tampa, FL	6.698	2.618	Nov 2015	2.800	Jun 2016	2.500	Jun 2017	-		2.500	Continuing	Continuing	-
DDS	MIPR	NAVSEA : Washington, DC	0.757	-		0.350	Jan 2016	0.303	Jan 2017	-		0.303	0.700	2.110	-
Prior Year Funding	Various	John Hopkins University : Columbia, MD	6.200	-		-		-		-		-	0.000	6.200	-
		Subtotal	13.655	4.207		3.150		2.803		-		2.803	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	221.211	48.086		52.328		50.150		-		50.150	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

SWCS Schedule

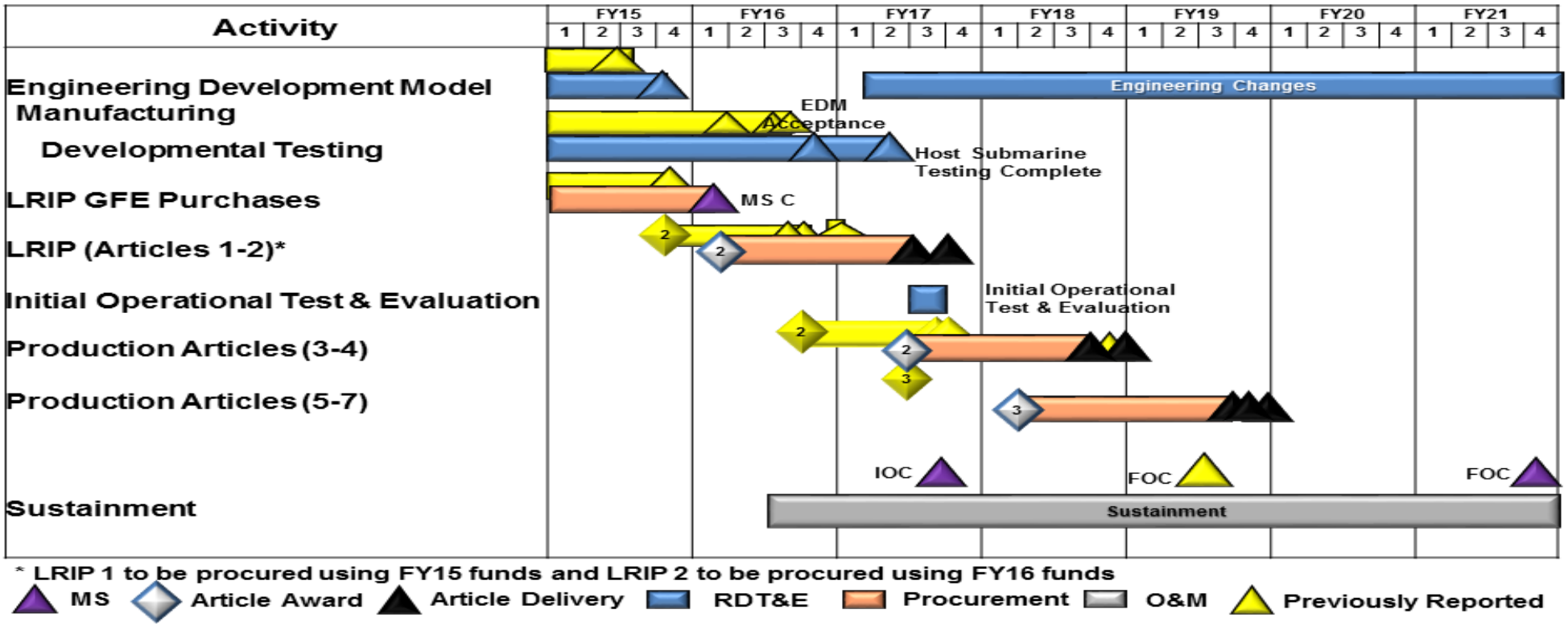

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Dry Combat Submersibles

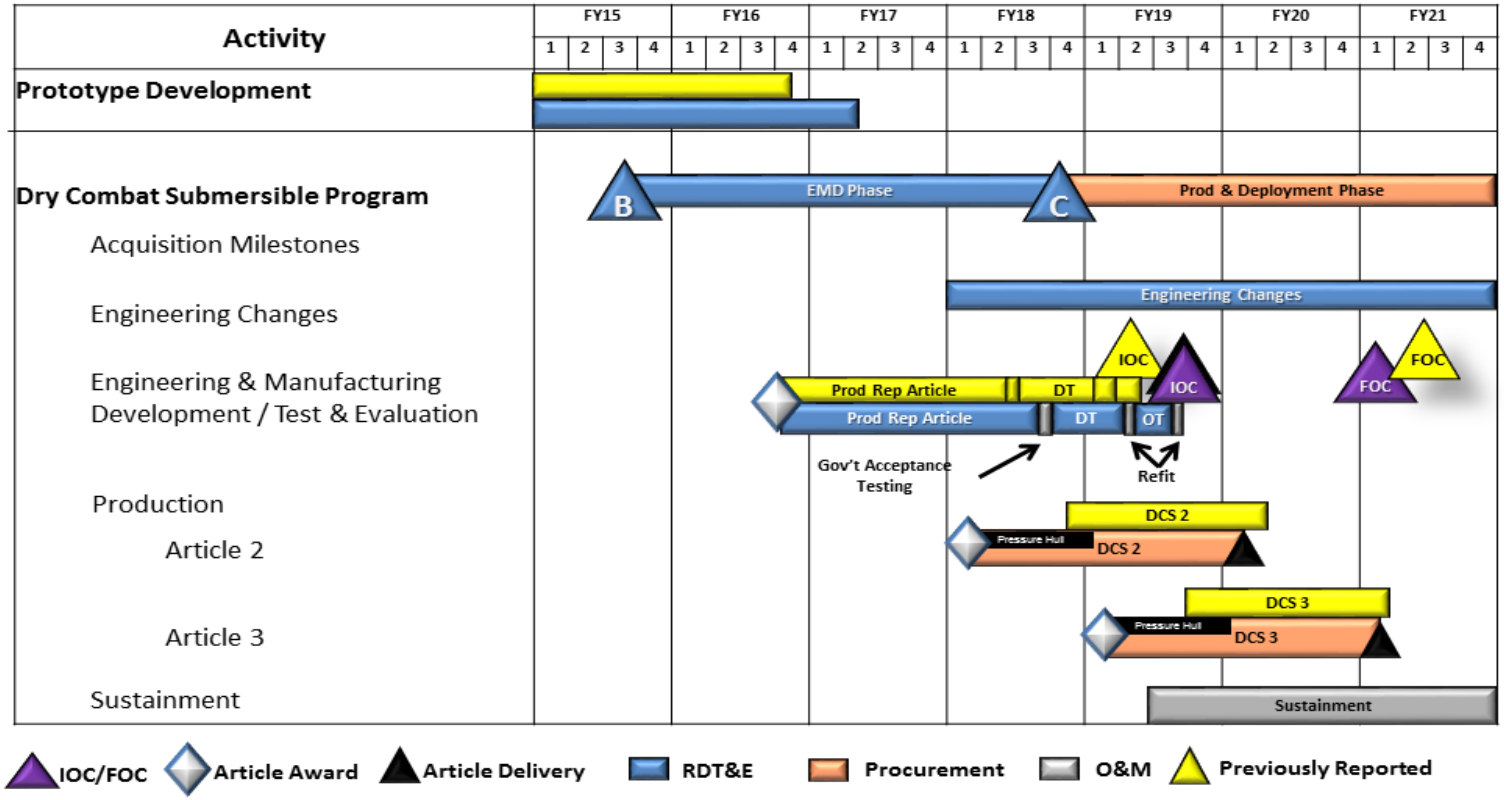

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

DDS Schedule

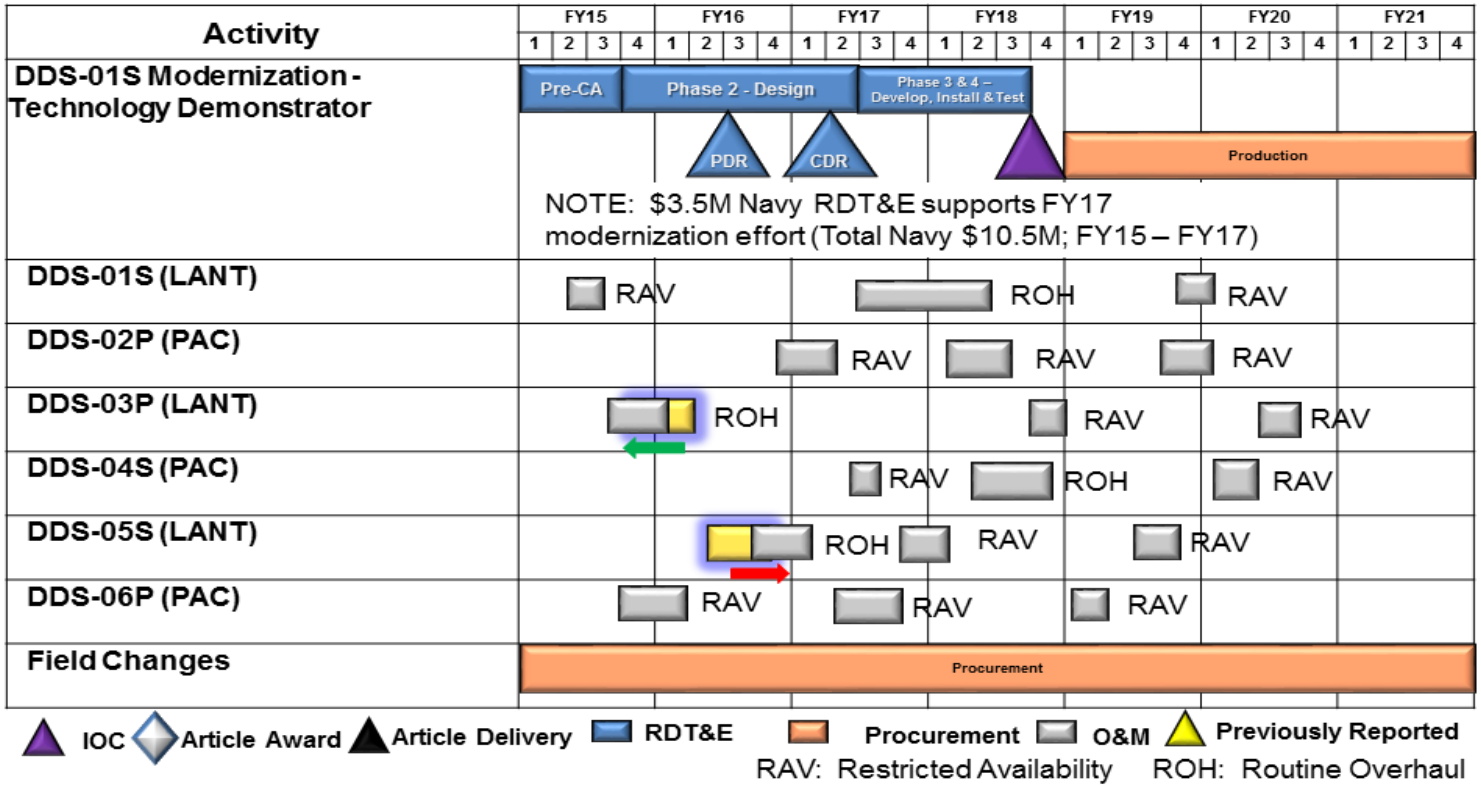

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

SOF Combat Diving

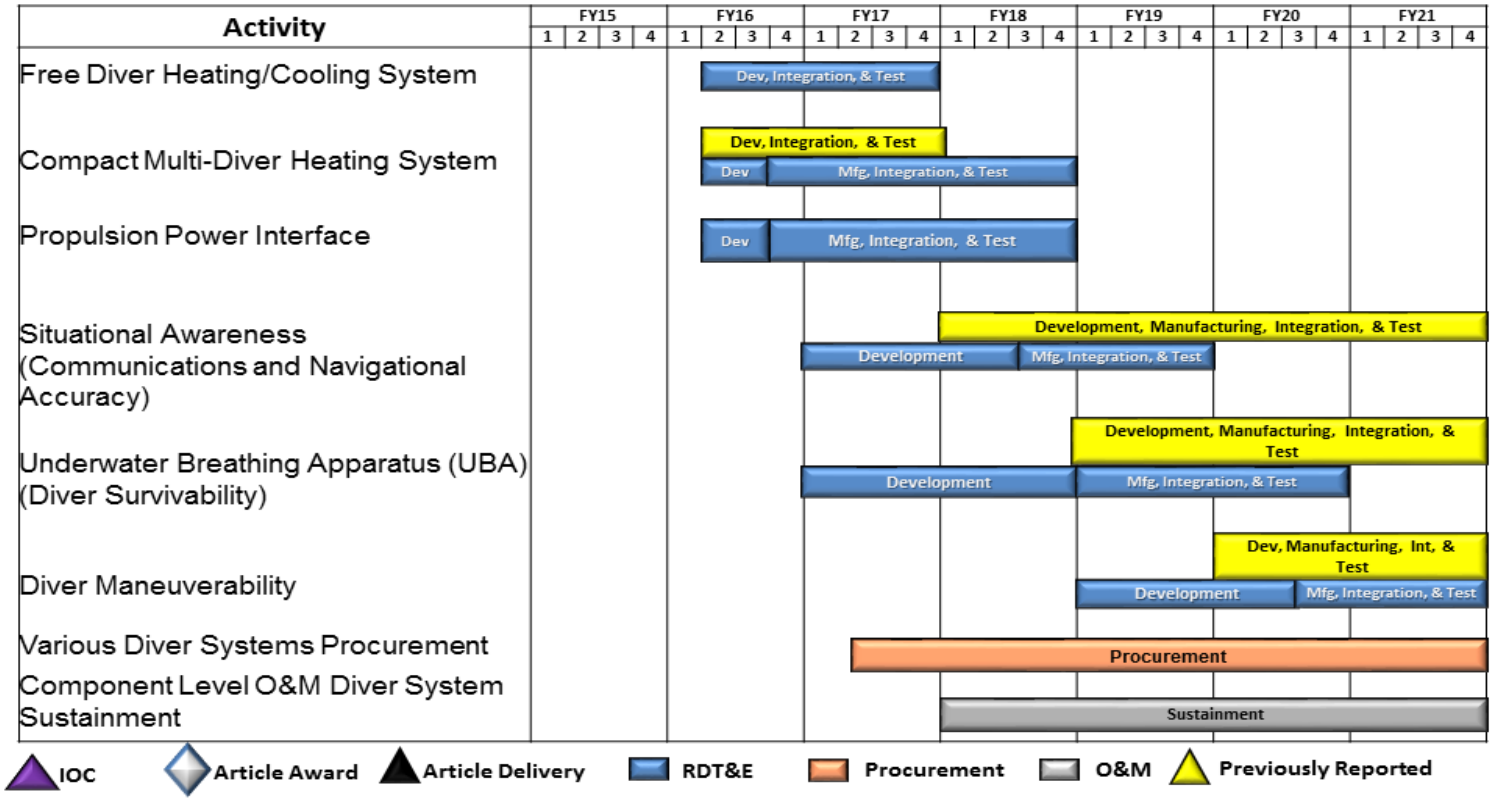


Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Shallow Water Combat Submersible				
Engineering & Manufacturing Development	1	2015	4	2015
Developmental Test	1	2015	2	2017
Milestone C	1	2016	1	2016
Engineering Changes	1	2017	4	2021
Dry Combat Submersibles				
Analysis, Component and Prototype Development, and Testing	1	2015	2	2017
Training Vessel	2	2017	2	2018
Milestone B	3	2015	3	2015
Acquisition Planning, Request for Proposals, and Source Selection	3	2015	3	2016
Engineering and Manufacturing Development Phase	3	2015	4	2018
Engineering Changes	1	2018	4	2021
Milestone C	4	2018	4	2018
Developmental and Operational Test and Evaluation	4	2018	3	2019
Dry Deck Shelter Modernization				
Preliminary Design Review	2	2016	2	2016
Critical Design Review	2	2017	2	2017
SOF Combat Diving				
Free Diver Heating / Cooling System Development / Manufacturing / Test / Integration	2	2016	4	2017
Compact Multi-Diver Heating System Development / Manufacturing / Test / Integration	2	2016	4	2018
Propulsion Power Interface Development / Manufacturing / Test / Integration	2	2016	4	2018
Communications and Navigational Accuracy Development / Manufacturing / Test / Integration	1	2017	4	2019

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Diver Survivability Development / Manufacturing / Test / Integration	1	2017	4	2020
Maneuverability Development / Manufacturing / Test / Integration	1	2019	4	2021

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S1684: *Surface Craft*	7.072	10.570	7.269	4.427	-	4.427	4.156	4.666	6.794	6.916	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for engineering and manufacturing development of medium and heavy surface combatant craft, combatant craft mission equipment, and pre-planned product improvement and technology insertion engineering changes 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 engage the enemy and conduct operations associated with SOF maritime missions. Sub-projects include:

• Combatant Craft Medium Mk 1 (CCM): This sub-project is a semi-enclosed, low-observable, multi-mission combatant craft for platoon-size maritime mobility in maritime denied environments. It is multi-mission capable, including Maritime Interdiction, Insert / Extract, and Visit, Board, Search, and Seizure (VBSS) Operations. CCM is Naval Special Warfare's (NSW) craft-of-choice for long-range, high-payload SOF mobility operations in denied environments up to high threat. 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. CCM Mk 1 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 / C5 transportable and can launch/recover by well deck or shore based trailer.

• Combatant Craft Heavy (CCH): This sub-project represents a family of solutions that provides platoon-size maritime surface mobility. The current CCH is the Sea, Air, Land Insertion, Observation, and Neutralization (SEALION) craft. SEALION is a fully-enclosed, climate-controlled, low-observable, semi-submersible craft that operates in denied environments up to high-threat. SEALION is NSW's most versatile and survivable combatant craft and the craft-of-choice for sensitive maritime intelligence, surveillance, and reconnaissance missions and those missions requiring a prolonged presence in denied environments. Its clandestine mobility capability is only exceeded by an undersea craft. Iron Triangle: 40 kt speed; 7 crew + 12 pax / 3,300 lb payload; and 400 nm range. 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, SEALION is C-17/C-5 transportable and can launch/recover by well deck or shore based mobile travel lift or crane.

• Next Generation Combatant Craft Forward Looking Infrared Radar (NG CCFLIR): This sub-project consists of a legacy CCFLIR and the NG CCFLIR. The CCFLIR capability provides SOF with a multi-sensor, electro-optic system that enhances SOF effectiveness by improving their ability to detect, recognize, identify, range, track, and highlight objects of interest in a maritime environment. The legacy CCFLIR is under sustainment, it is currently used on all Naval Special Warfare Combatant Craft. The NG CCFLIR will use technological advancements to gain significant improvements in capability such as operational range, image fusion, net-centric data sharing, information assurance, and seamless craft and combat systems integration.

• Combatant Craft Mission Equipment (CCME) (previously Next Generation Surface Systems): This sub-project provides a rapid response capability to support SOF Combatant Craft Systems and subsystems. The CCME will explore and provide solutions to support emerging requirements in support of SOF missions. It provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies,

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

analyses of alternatives, pre-developmental risk reduction, and engineering analyses. Demonstrations and modifications may be made to support emerging capability enhancements such as but not limited to conformal antennas, identification Friend-or-Foe capabilities, enhanced communications, weapon integration, software efresh, and navigation subsystems in support of future missions. Solutions may be Commercial-Off-The-Shelf (COTS) solutions, leveraged from other agency solutions, or new solutions.

• Combatant Craft Assault (CCA) (previously High Speed Assault Craft): This sub-project is a National-to-Theater transition. The CCA is the theater version of the High Speed Assault Craft. The CCA is a low-observable combatant craft for squad-size maritime mobility operations in maritime denied environments. CCA is NSW's best craft for VBSS in maritime denied environments up to and including medium threat. 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; 3 crew + 12 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: CCM	4.572	1.308	1.659
FY 2015 Accomplishments: Completed Operational Testing and continued development and integration of sub-systems including weapons and situational awareness systems. Refurbished test article to production craft configuration.			
FY 2016 Plans: Continue development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication.			
FY 2017 Plans: Develops conceptual, preliminary, and detail design drawings necessary to integrate and conduct initial testing of a remote weapon system on the CCM test article. Begins integration of NG CCFLIR and applicable CCME technology onto CCM crafts.			
Title: CCH	1.872	2.245	0.887
FY 2015 Accomplishments: Completed SEALION III design study and began tactical computer system upgrades. Installed dynamic positioning system.			
FY 2016 Plans: Continue development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication. Initiate studies and analysis for upgraded CCH craft.			
FY 2017 Plans: Completes tactical computer system upgrades. Continues pre-planned product improvement and technology insertion. Begins integration of NG CCFLIR and applicable CCME technology onto CCH crafts.			
Title: NG CCFLIR	2.247	1.500	-
FY 2015 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Completed source selection for prototype units for development testing. Began development and testing of NG CCFLIR. ***FY 2016 Plans:*** Complete testing and integration with combatant craft systems.			
Title: CCME ***FY 2015 Accomplishments:*** Tested and analyzed combatant crafts survivability characteristics. Performed analysis of alternatives tests for obsolete intercom system. Performed baseline test and assessment for a remote weapon system. ***FY 2016 Plans:*** Identify and evaluate candidate solutions for capability enhancements and insertion across Combatant Craft Systems. Technology development include, but not limited to, conformal antennas, communications, weapons integration, survivability, shock and vibration systems, and situational awareness. ***FY 2017 Plans:*** Evaluates candidate solutions for technology development to include, but not limited to, MK50 SOF improvements (i.e., accuracy and increased rounds), Vehicular Intercommunications-3 intercom control integration tests, active ride control integration tests, craft survivability painting studies and verification, and situational awareness studies.	1.879	2.216	1.381
Title: CCA ***FY 2017 Plans:*** Begins integration of NG CCFLIR and applicable CCME technology onto CCA crafts.	-	-	0.500
Accomplishments/Planned Programs Subtotals	10.570	7.269	4.427

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204SCCS: *Combatant Craft Systems*	50.337	63.362	55.820	-	55.820	27.110	13.149	38.342	38.081	Continuing	Continuing

Remarks

N/A

D. Acquisition Strategy

• CCM acquisition strategy was a competition using 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 logistic support.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

• CCH: SEALION I & II were transitioned from United States Navy advanced technology demonstrator craft to USSOCOM. Sustainment for SEALION I & II is conducted via Special Operations Forces Support Activity (SOFSA). Based on market research completed in December 2015; currently pursuing a Sole Source award for SEALION III in order to take advantage of previous Government investments in manufacturing infrastructure for SEALION I & II.

• NG CCFLIR: Current fleet of legacy CCFLIR was procured via full and open competition. Procurement for legacy CCFLIR is complete. Legacy CCFLIR will continue to be utilized on the Rigid-hull Inflatable Boat (RIB) and Special Operations Craft Riverine (SOCR). The Combatant Craft Medium (CCM), Combatant Craft Heavy (CCH), and High Speed Assault Craft (HSAC) will transition from legacy CCFLIR to NG CCFLIR. NG CCFLIR completed a full and open competition in Sep 15. An Engineering Manufacturing Development contract was awarded to FLIR Systems Incorporated, which included production and sustainment options.

• CCME acquisition strategy plans include the full spectrum of contracting activities, using existing contracts where appropriate, and other Government agencies to leverage, marinize, commonize, and advance Technology Readiness Level 6 leap ahead technology from Services and USSOCOM SOF AT&L S&T. Procurement of items will be from the Combatant Craft Systems procurement program element.

• CCA originated as National-to-Theater transition. The CCA is the theater version of the High Speed Assault Craft and will use various contracting and better buying power practices to develop, test, and integrate capability enhancements required to increase the craft's current performance envelope.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Combatant Craft Medium (CCM)	C/Various	Vigor Works : Clackamas, OR	4.374	1.426	Jan 2015	1.308	Jan 2016	1.659	Jan 2017	-		1.659	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Various	Various : Various	0.225	1.872	Nov 2014	2.245	Apr 2016	0.887	Nov 2017	-		0.887	Continuing	Continuing	-
Next Generation Combatant Craft Forward Looking Infrared (NG CCFLIR)	C/Various	FLIR Systems : Billerica, MA	0.691	2.247	Sep 2015	0.600	Nov 2016	-		-		-	0.000	3.538	-
Combatant Craft Mission Equipment (CCME)	C/Various	Various : Various	0.311	1.642	Apr 2015	1.891	Jan 2016	1.156	Jan 2017	-		1.156	Continuing	Continuing	-
CCA	C/Various	Various : Various	-	-		-		0.280	Jan 2017	-		0.280	Continuing	Continuing	-
		Subtotal	5.601	7.187		6.044		3.982		-		3.982	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCM	MIPR	NSWC : Norfolk, VA	0.281	0.800	Dec 2014	-		-		-		-	0.000	1.081	-
NG CCFLIR	C/Various	NSWC : Crane, IN	-	-		0.900	Apr 2016	-		-		-	0.000	0.900	-
CCME	C/Various	Various : Various	-	0.237	Jan 2015	0.325	Apr 2016	0.225	Jan 2017	-		0.225	0.000	0.787	-
CCA	C/Various	Various : Various	-	-		-		0.220	Jan 2017	-		0.220	Continuing	Continuing	-
		Subtotal	0.281	1.037		1.225		0.445		-		0.445	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCM	C/Various	NSWC : Norfolk, VA; Crane, IN	-	0.937	Mar 2015	-		-		-		-	0.000	0.937	-
CCM	C/Various	SRA : Tampa, FL	0.625	1.409	May 2015	-		-		-		-	0.000	2.034	-
Prior Years	C/Various	NSWC : Crane, IN	0.565	-		-		-		-		-	0.000	0.565	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			1.190	2.346		-		-		-		-	0.000	3.536	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.072	10.570		7.269		4.427		-		4.427	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Medium

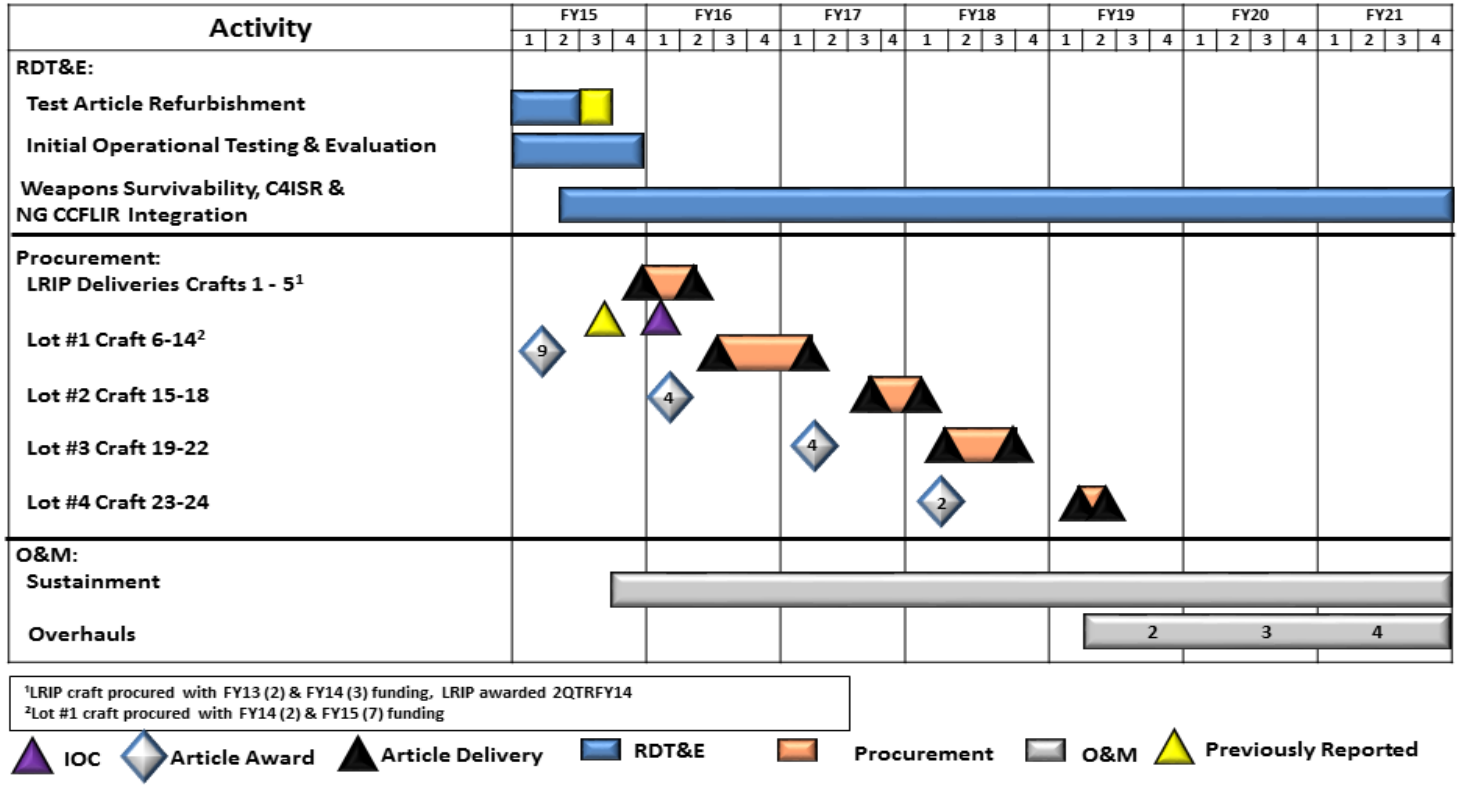


Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Heavy

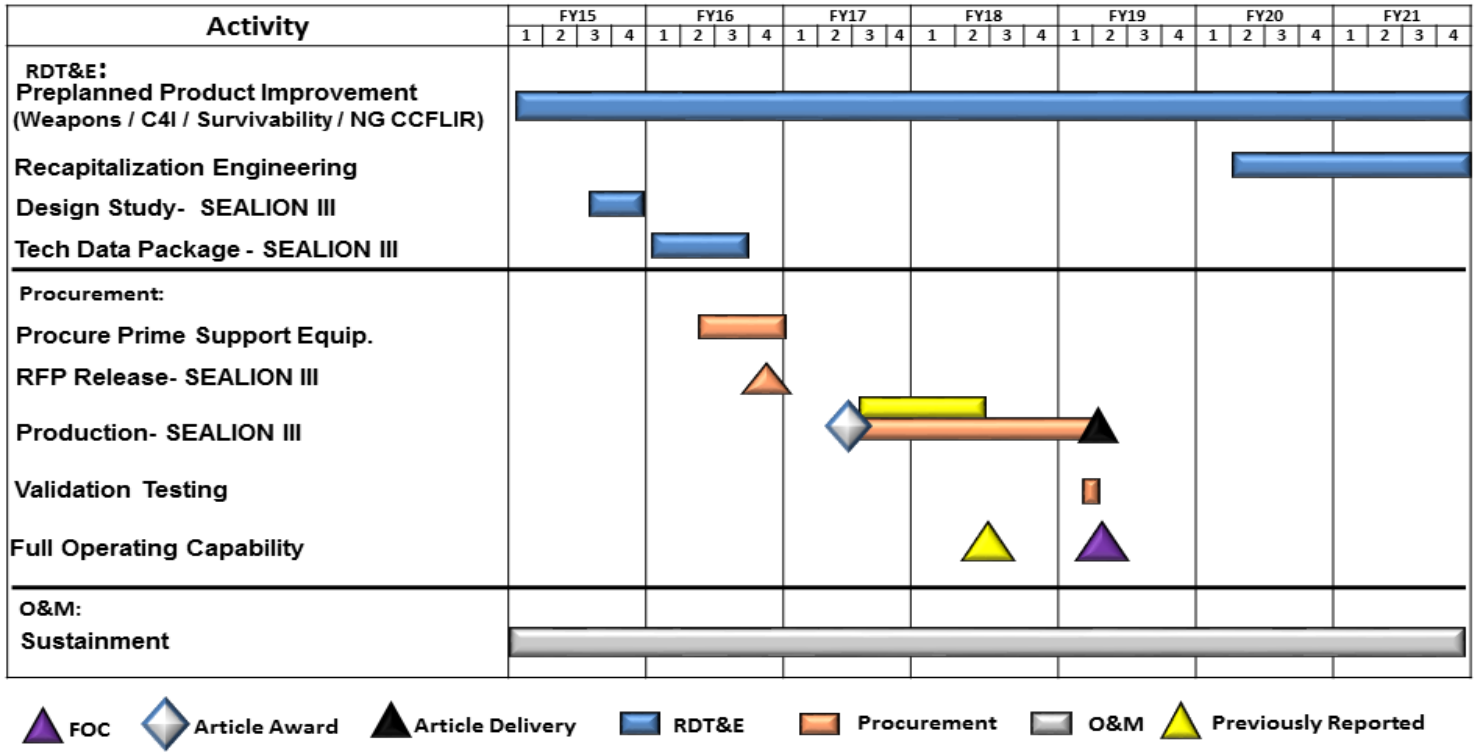


Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Next Generation Combatant Craft
Forward Looking Infrared Radar

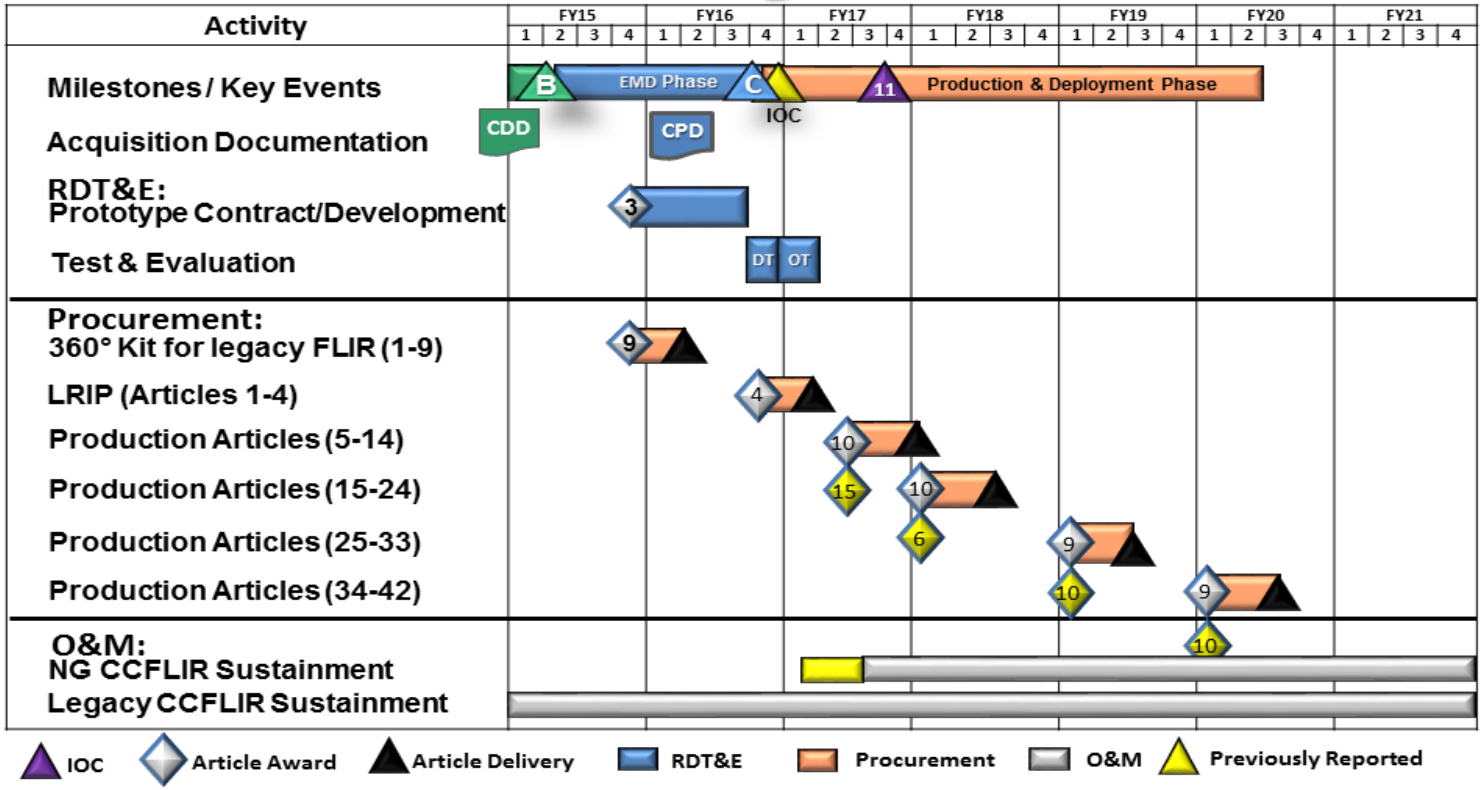
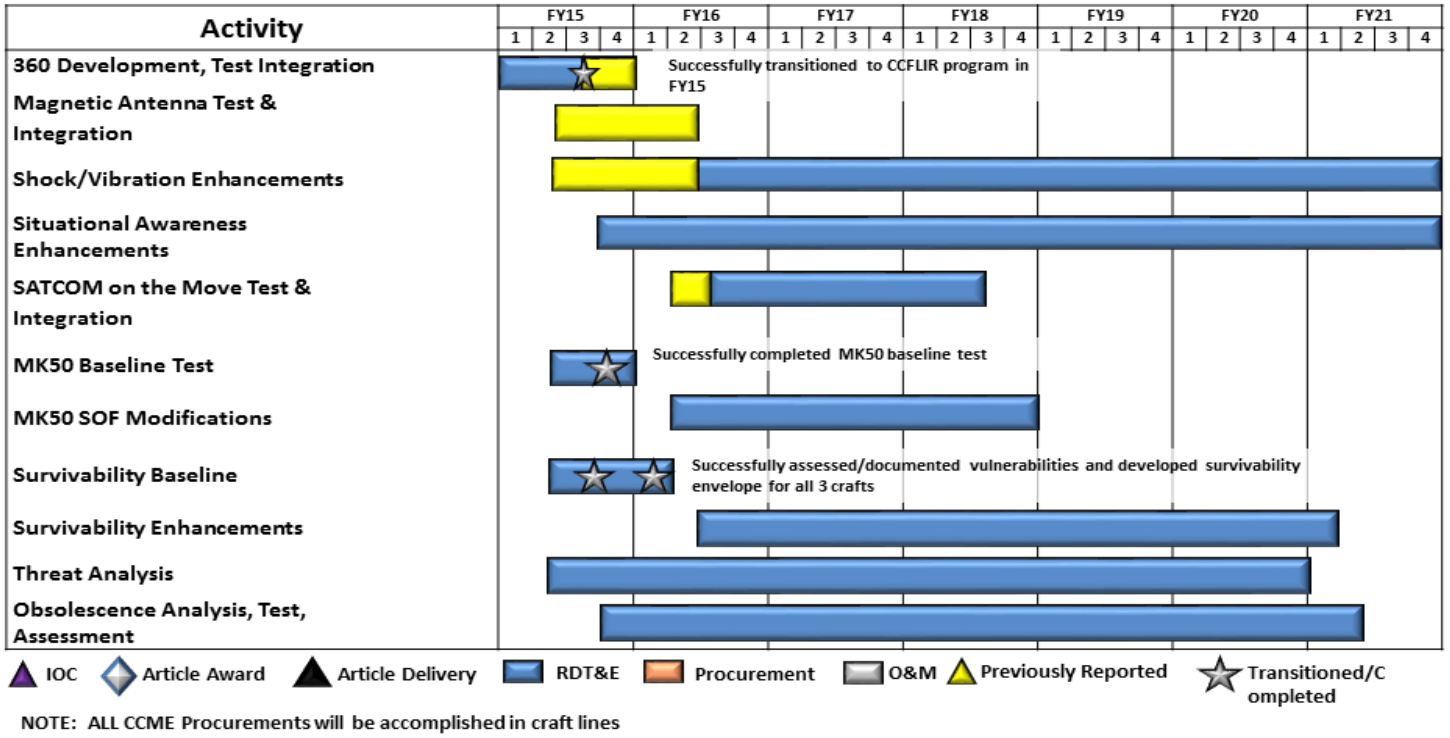


Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Mission Equipment



NOTE: ALL CCME Procurements will be accomplished in craft lines

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Combatant Craft Assault

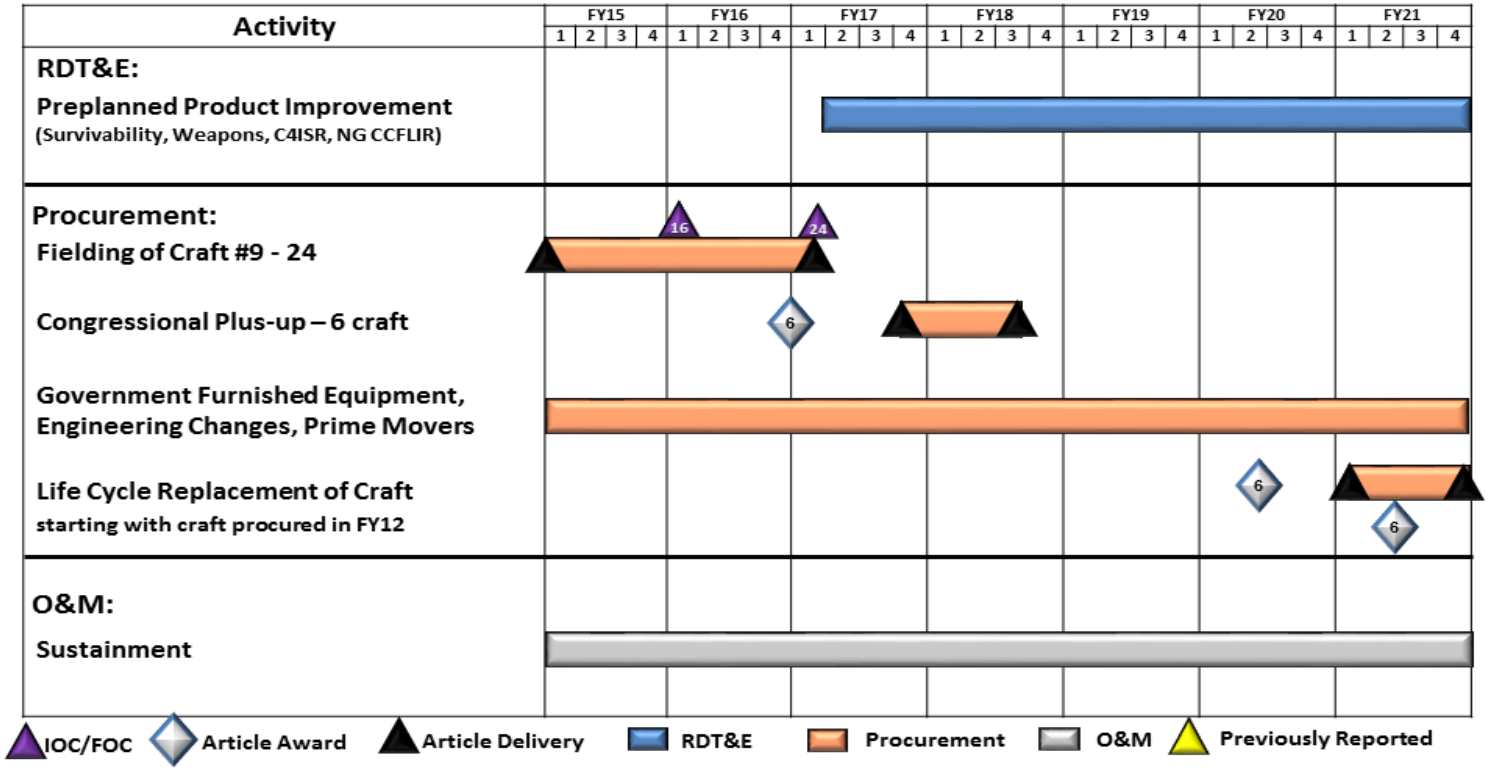


Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Combatant Craft Medium				
Test Article Refurbishment	1	2015	2	2015
Acceptance and Operational Testing	1	2015	4	2015
Weapons, Survivability, C4ISR Integration	2	2015	4	2021
Combatant Craft Heavy				
Preplanned Product Improvement (Weapons / C4I / Survivability)	1	2015	4	2021
Design Study - SEALION III	3	2015	4	2015
Tech Data Package - SEALION III	1	2016	3	2016
Next Generation Combatant Craft Forward Looking Infrared Radar				
Prototype Contract	4	2015	4	2015
Prototype Development	4	2015	3	2016
Developmental Test	3	2016	4	2016
Milestone C Decision	4	2016	4	2016
Operational Testing	4	2016	1	2017
Combatant Craft Mission Equipment				
360 Development, Test, Integration	1	2015	3	2015
Shock/Vibration	2	2016	4	2021
Situational Awareness	3	2015	4	2021
SATCOM on the Move Test, Integration	3	2016	3	2018
Weapons Integration	3	2015	4	2018
Survivability	2	2015	1	2021
Threat Analysis	2	2015	4	2020
Obsolescence Analysis, Test, Analysis	4	2015	2	2021

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Combatant Craft Assault				
Preplanned Product Improvement (Survivability, Weapons, C4ISR)	2	2017	4	2021

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160489BB / *Global Video Surveillance Activities*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	42.255	3.788	3.933	3.841	-	3.841	4.661	4.820	5.388	5.496	Continuing	Continuing
S500C: *Global Video Surveillance Activities*	42.255	3.788	3.933	3.841	-	3.841	4.661	4.820	5.388	5.496	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. Details are provided under separate cover.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.788	3.933	3.870	-	3.870
Current President's Budget	3.788	3.933	3.841	-	3.841
Total Adjustments	0.000	0.000	-0.029	-	-0.029
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.029	-	-0.029

Change Summary Explanation

Funding:

FY2015: None.

FY2016: None.

FY2017: Decrease of $0.029 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	59.245	16.125	10.623	11.834	-	11.834	12.049	12.279	13.693	13.967	Continuing	Continuing
S500D: *Operational Enhancements Intelligence*	59.245	16.125	10.623	11.834	-	11.834	12.049	12.279	13.693	13.967	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. 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. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	15.225	10.623	11.923	-	11.923
Current President's Budget	16.125	10.623	11.834	-	11.834
Total Adjustments	0.900	0.000	-0.089	-	-0.089
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.900	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.089	-	-0.089

Change Summary Explanation

Funding:

FY2015: Realignment of $0.900 million increase available under separate cover document.

FY2016: None.

FY2017: Decrease of $0.089 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160490BB / *Operational Enhancements Intelligence*	Project (Number/Name) S500D / *Operational Enhancements Intelligence*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S500D: *Operational Enhancements Intelligence*	59.245	16.125	10.623	11.834	-	11.834	12.049	12.279	13.693	13.967	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Details provided under separate cover. ***Description:*** Details provided under separate cover. ***FY 2015 Accomplishments:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover. ***FY 2017 Plans:*** Details provided under separate cover.	16.125	10.623	11.834
Accomplishments/Planned Programs Subtotals	16.125	10.623	11.834

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Program acquisition strategy available under separate cover documents.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command			Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160490BB / *Operational Enhancements Intelligence*	Project (Number/Name) S500D / *Operational Enhancements Intelligence*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Classified Program	TBD	Various : Various	59.245	16.125		10.623		11.834		-		11.834	Continuing	Continuing	-
		Subtotal	59.245	16.125		10.623		11.834		-		11.834	-	-	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	59.245	16.125		10.623		11.834		-		11.834	-	-	-

Remarks

N/A

Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*	**Project (Number/Name)** S500D / *Operational Enhancements Intelligence*

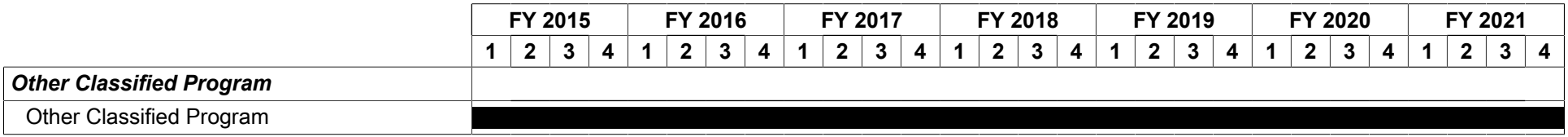

Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*	**Project (Number/Name)** S500D / *Operational Enhancements Intelligence*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Other Classified Program				
Other Classified Program	1	2015	4	2021

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Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission

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Washington Headquarters Service

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Program Element Table of Contents (by Budget Activity then Line Item Number).....Volume 5 - 1129

Program Element Table of Contents (Alphabetically by Program Element Title).....Volume 5 - 1131

Exhibit R-2's.....Volume 5 - 1133

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Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Research, Development, Test & Eval, DW	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 06:57:42

Department of Defense
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827
Summary Recap of FYDP Programs							
Administration and Associated Activities	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 06:57:42

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

Summary Recap of Budget Activities	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Management Support	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827
Summary Recap of FYDP Programs							
Administration and Associated Activities	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Washington Headquarters Services	612	975		975	827		827
Total Research, Development, Test & Evaluation	612	975		975	827		827

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 06:57:42

Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
177	0901598D8W	Management Headquarters WHS	06	612							U
178	0903230D8W	WHS - Mission Operations Support - IT	06		975		975				U
179	0903235D8W	Joint Service Provider (JSP)	06					827		827	U
		Management Support		612	975		975	827		827	
Total Research, Development, Test & Eval, DW				612	975		975	827		827	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 06:57:42

Washington Headquarters Services
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

14 Jan 2016

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

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
177	0901598D8W	Management Headquarters WHS	06	612							U
178	0903230D8W	WHS - Mission Operations Support - IT	06		975		975				U
179	0903235D8W	Joint Service Provider (JSP)	06					827		827	U
Management Support				612	975		975	827		827	
Total Washington Headquarters Services				612	975		975	827		827	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 06:57:42

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

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
177	06	0901598D8W	Management Headquarters WHS	Volume 5 - 1133
178	06	0903230D8W	WHS - Mission Operations Support - IT	Volume 5 - 1137
179	06	0903235D8W	Joint Service Provider (JSP)	Volume 5 - 1141

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

Program Element Title	Program Element Number	Line #	BA	Page
Joint Service Provider (JSP)	0903235D8W	179	06	Volume 5 - 1141
Management Headquarters WHS	0901598D8W	177	06	Volume 5 - 1133
WHS - Mission Operations Support - IT	0903230D8W	178	06	Volume 5 - 1137

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0901598D8W *I Management Headquarters WHS*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.870	0.612	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
945: *945 Miscellaneous IT Initiative*	0.870	0.612	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

A. Mission Description and Budget Item Justification

The Washington Headquarters Services (WHS) Information Technology (IT) program provides ongoing research, test, and development and enhancement initiatives for the Office of the Secretary of Defense (OSD), OSD Principal Staff Assistants, and WHS Directorates. Ongoing initiatives include enterprise storage testing, enterprise performance and productivity analysis, enterprise/business applications development and enhancements, operational support enhancements, and information assurance testing and development.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.612	0.000	0.000	-	0.000
Current President's Budget	0.612	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

The FY 2015 program is in compliance with Section 638 of Title 15 USC-Small Business Innovation Research Program and the Small Business Technology Transfer Program. The FY 2015 program has developed, tested, and deployed integrated business tools to enhance human resource management, acquisition, and executive services business processes supporting WHS/OSD. Funds are also used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users.

1. Enterprise Information Technology Services Directorate (EITSD) IT FY 2015 $509K.
To develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. The long term goal is to provide and maintain a centrally managed, "State-of-the-Art", Virtual Environment for developers throughout OSD, WHS and PFPA.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0901598D8W *I Management Headquarters WHS*

2. Secure Mobile Computing FY 2015 $103K.
Developing better mobile classified computing and communications platforms for all customers to have secured computing at residences and at temporary and mobile locations around the world.

For FY 2016 we did not report any programs in the 0901598D8W PE, but under the new PE 0903230D8W.

For FY 2017 we reported all funding in the newly established PE 0903235D8W.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Washington Headquarters Service			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0901598D8W / *Management Headquarters WHS*	Project (Number/Name) 945 / *945 Miscellaneous IT Initiative*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
945: *945 Miscellaneous IT Initiative*	0.870	0.612	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

P945 – Miscellaneous IT Initiative - The WHS provides various IT support for the WHS/OSD to align processes and information technology that will enable mission accomplishment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Enterprise Information Technology Services Directorate (EITSD) IT ***FY 2015 Accomplishments:*** Funding was used to develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds were also used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. The long term goal is to provide and maintain a centrally managed, "State-of-the-Art", Virtual Environment for developers throughout OSD, WHS and PFPA.	0.509	-	-
Title: Secure Mobile Computing ***FY 2015 Accomplishments:*** Developing better mobile classified computing and communications platforms for all customers to have secure computing at residences and at temporary and mobile locations around the world.	0.103	-	-
Accomplishments/Planned Programs Subtotals	0.612	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not applicable for this item

Exhibit R-2A, RDT&E Project Justification: PB 2017 Washington Headquarters Service		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0901598D8W / *Management Headquarters WHS*	**Project (Number/Name)** 945 / *945 Miscellaneous IT Initiative*

E. Performance Metrics

FY 2015: Continuation of the program (which established Secure Mobile Computing for the Secretary of Defense Communications) with a faster and more cost effective approach to evaluation and application of new software and information technology.

FY 2015: To achieve a 15% reduction in the time to deploy modifications, upgrades and capabilities to customers.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0903230D8W *I WHS - Mission Operations Support - IT*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.975	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
945: *945 Miscellaneous IT Initiative*	0.000	0.000	0.975	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Washington Headquarters Services (WHS) Information Technology (IT) program provides ongoing research, test, and development and enhancement initiatives for the Office of the Secretary of Defense (OSD), OSD Principal Staff Assistants, and WHS Directorates. Ongoing initiatives include enterprise storage testing, enterprise performance and productivity analysis, enterprise/business applications development and enhancements, operational support enhancements, and information assurance testing and development.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	1.072	0.000	-	0.000
Current President's Budget	0.000	0.975	0.000	-	0.000
Total Adjustments	0.000	-0.097	0.000	-	0.000
• Congressional General Reductions	-	-0.097			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

The FY 2016 program will develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds will also be used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users.

1. Enterprise Information Technology Services Directorate (EITSD) IT FY 2016 $878K.
To develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. the long term goal is to provide and maintain a centrally managed, "State-of-the-Art", Virtual Environment for developers throughout OSD, WHS, and PFPA.

2. Secure Mobile Computing FY 2016 $97K

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0903230D8W *I WHS - Mission Operations Support - IT*

The FY 2016 program plans to develop better mobile classified computing and communications platforms for all customers to have secured computing at residences and at temporary and mobile locations around the world.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Washington Headquarters Service			Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0903230D8W / *WHS - Mission Operations Support - IT*	**Project (Number/Name)** 945 / *945 Miscellaneous IT Initiative*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
945: *945 Miscellaneous IT Initiative*	0.000	0.000	0.975	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

P945 – Miscellaneous IT Initiative - The WHS provides various IT support for the WHS/OSD to align processes and information technology that will enable mission accomplishment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Enterprise Information Technology Services Directorate (EITSD) IT ***FY 2016 Plans:*** To develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds will also be used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. The long term goal is to provide and maintain a centrally managed, "State-of-the-Art", Virtual Environment for developers throughout OSD, WHS and PFPA.	-	0.878	-
Title: Secure Mobile Computing ***FY 2016 Plans:*** The FY 2016 program plans to develop better mobile classified computing and communications platforms for all customers to have secure computing at residences and at temporary and mobile locations around the world.	-	0.097	-
Accomplishments/Planned Programs Subtotals	-	0.975	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not applicable for this

E. Performance Metrics

To achieve a 15% reduction in the time to deploy modifications, upgrades and capabilities to customers.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0903235D8W *I Joint Service Provider (JSP)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	0.827	-	0.827	1.242	1.218	1.146	1.169	Continuing	Continuing
945: *Miscellaneous - IT Initiative*	-	0.000	0.000	0.827	-	0.827	1.242	1.218	1.146	1.169	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Washington Headquarters Services (WHS) Information Technology (IT) program provides ongoing research, test, and development and enhancement initiatives for the Office of the Secretary of Defense (OSD), OSD Principal Staff Assistants, and WHS Directorates. Ongoing initiatives include enterprise storage testing, enterprise performance and productivity analysis, enterprise/business applications development and enhancements, operational support enhancements, and information assurance testing and development.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	0.827	-	0.827
Total Adjustments	0.000	0.000	0.827	-	0.827
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Joint Service Provider (JSP)	-	-	0.827	-	0.827

Change Summary Explanation

The FY 2017 program will develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds will also be used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users. The FY 2017 funding was reduced by $0.2M to account for the availability of prior year execution balances.

1. Joint Service Provider (JSP) IT FY 2017 $728K

To develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds will also be used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. the long term goal is to provide and maintain a centrally managed, "State-of-the ART," Virtual Environment for developers throughout OSD, WHS, and PFPA.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Washington Headquarters Service	Date: February 2016
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0903235D8W *I Joint Service Provider (JSP)*

2. Secure Mobile Computing FY 2017 $99K

The FY 2017 program plans to develop better mobile classified computing and communications platforms for all customers to have secured computing at residences and at temporary and mobile locations around the world.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Washington Headquarters Service			Date: February 2016
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0903235D8W / *Joint Service Provider (JSP)*	Project (Number/Name) 945 / *Miscellaneous - IT Initiative*	

COST ($ in Millions)	Prior Years (+)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
945: *Miscellaneous - IT Initiative*	-	0.000	0.000	0.827	-	0.827	1.242	1.218	1.146	1.169	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

(+) 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

P945 - Miscellaneous IT Initiative - The WHS provides various IT support for the WHS/OSD to align processes and information technology that will enable mission accomplishment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Joint Service Provider (JSP) ***FY 2017 Plans:*** To develop, test, pilot, and deploy new integrated business tools that will enhance human resource management, acquisition, and executive services business processes that support WHS/OSD. funds will also be used for developing and testing tools that will improve the delivery of IT services and capabilities for all WHS/OSD users. WHS/OSD continues to expand the Engineering, Test and Development networks for NIPR and SIPR. the long term goal is to provide and maintain a centrally managed, "State-of-the-Art," Virtual Environment for developers throughout OSD, WHS, and PFPA.	-	-	0.728
Title: Secure Mobile Computing ***FY 2017 Plans:*** The FY 2017 program plans to develop better mobile classified commuting and communications platforms for all customers. The plan is for continue to focus on secure mobile platforms capable of highly classified communications with an emphasis on the ever-changing nature of the technology and the development of state-of-the-art capabilities to support the Secretary of Defense in his command and control responsibilities.	-	-	0.099
Accomplishments/Planned Programs Subtotals	-	-	0.827

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2017 Washington Headquarters Service		Date: February 2016
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0903235D8W / *Joint Service Provider (JSP)*	**Project (Number/Name)** 945 / *Miscellaneous - IT Initiative*

E. Performance Metrics

FY 2017: To achieve a 15% reduction in the time to deploy modifications, upgrades, and capabilities to customers.

Department of Defense
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February 2016

Operational Test and Evaluation, Defense

Defense-Wide Justification Book Volume 5 of 5

Operational Test and Evaluation, Defense

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Defense-Wide
FY 2017 President's Budget
Exhibit R-1 FY 2017 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Jan 2016

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Sec
1	0605118OTE	Operational Test and Evaluation	06	93,223	76,838		76,838	78,047		78,047	U
2	0605131OTE	Live Fire Test and Evaluation	06	45,142	46,882		46,882	48,316		48,316	U
3	0605814OTE	Operational Test Activities and Analyses	06	70,346	63,763		63,763	52,631		52,631	U
		Management Support		208,711	187,483		187,483	178,994		178,994	
Total Operational Test & Eval, Defense				208,711	187,483		187,483	178,994		178,994	

R-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 12, 2016 at 08:24:18

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

Appropriation 0460: Operational Test and Evaluation, Defense

Line #	Budget Activity	Program Element Number	Program Element Title	Page
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2	06	0605131OTE	Live Fire Test and Evaluation (LFT&E)	Volume 5 - 1161
3	06	0605814OTE	Operational Test Activities and Analyses	Volume 5 - 1175

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

Program Element Title	Program Element Number	Line #	BA	Page
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Operational Test Activities and Analyses	0605814OTE	3	06	Volume 5 - 1175
Operational Test and Evaluation (OT&E)	0605118OTE	1	06	Volume 5 - 1155

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605118OTE / *Operational Test and Evaluation (OT&E)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	75.720	93.223	76.838	78.047	-	78.047	80.129	81.488	82.955	84.116	Continuing	Continuing
0605118OTE: *OT&E*	75.720	93.223	76.838	78.047	-	78.047	80.129	81.488	82.955	84.116	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Director of Operational Test and Evaluation (DOT&E) was created by Congress in 1983. The Director is responsible under Title 10 for policy and procedures for all aspects of Operational Test and Evaluation (OT&E) within the Department of Defense (DoD). Particular focus is given to OT&E that supports major weapon system production decisions for acquisition programs included on the Office of Secretary of Defense Test and Evaluation Oversight List that is prepared and approved annually. Generally, there are about 300 programs on the oversight list including all Major Defense Acquisition Programs (MDAP) and Major Automated Information Systems (MAIS). MDAPs 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:

- Approve component Test and Evaluation Master Plans (TEMPS).
- Approve component OT&E Test Plans (TPs).
- Oversee 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 programs; and assessment of the operational effectiveness and suitability of the weapon systems.
- Report results of OT&E that supports BLRIP decisions to the Secretary of Defense and Congress, as well as providing an annual report summarizing all OT&E activities and the adequacy of test resources within DoD during the previous fiscal year.
- Review and make recommendations to the Secretary of Defense on all budgetary and financial matters related to OT&E, including operational test facilities, resources and ranges.

DOT&E also oversees and resources OT&E community efforts to plan and execute joint operational evaluations of information assurance and interoperability (IA and IOP) 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 increasing the capacity to access realistically advanced cyber warfare capabilities to keep pace with heightened demand for their capabilities, 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 IA and IOP programs, funds for Service teams performing information assurance and interoperability assessments during exercises, administrative support services, DFAS support, and engineering and technical support services related to the conduct of operational test and evaluation and exercise assessments.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605118OTE / *Operational Test and Evaluation (OT&E)*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	93.223	76.838	78.434	-	78.434
Current President's Budget	93.223	76.838	78.047	-	78.047
Total Adjustments	0.000	0.000	-0.387	-	-0.387
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation/Economic adjustment	-	-	-0.387	-	-0.387

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: 0605118OTE: *OT&E*		
Congressional Add: *Cyber Force Training and Resiliency*	10.000	-
Congressional Add: *PACOM Cyber*	4.880	-
Congressional Add: *Cyber Red Team and Training*	3.760	-
Congressional Add Subtotals for Project: 0605118OTE	18.640	-
Congressional Add Totals for all Projects	18.640	-

Change Summary Explanation

Inflation/Economic adjustment of -$0.387 in FY 2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense			Date: February 2016
Appropriation/Budget Activity 0460 / 6	R-1 Program Element (Number/Name) PE 0605118OTE / *Operational Test and Evaluation (OT&E)*	Project (Number/Name) 0605118OTE / *OT&E*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0605118OTE: *OT&E*	75.720	93.223	76.838	78.047	-	78.047	80.129	81.488	82.955	84.116	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Director of Operational Test and Evaluation (DOT&E) was created by Congress in 1983. The Director is responsible under Title 10 for policy and procedures for all aspects of Operational Test and Evaluation (OT&E) within the Department of Defense (DoD). Particular focus is given to OT&E that supports major weapon system production decisions for acquisition programs included on the Office of Secretary of Defense Test and Evaluation Oversight List that is prepared and approved annually. Generally, there are about 300 programs on the oversight list including all Major Defense Acquisition Programs (MDAP) and Major Automated Information Systems (MAIS). MDAPs 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:

- The approval of component Test and Evaluation Master Plans (TEMPS).
- The 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 programs; and assessment of the operational effectiveness and suitability of the weapon systems.
- Reporting results of OT&E that support BLRIP decisions to the Secretary of Defense and Congress, as well as providing an annual report summarizing all OT&E activities and the adequacy of test resources within DoD during the previous fiscal year.
- The review and make recommendations to the Secretary of Defense on all budgetary and financial matters related to OT&E, including operational test facilities, resources and ranges.

DOT&E also oversees and resources OT&E community efforts to plan and execute joint operational evaluations of information assurance and interoperability (IA and IOP) 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 increasing the capacity to access realistically advanced cyber warfighting capabilities to keep pace with heightened demand for those capabilities, 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 IA and IOP programs, funds for Service teams performing information assurance and interoperability assessments during exercises, administrative support services, DFAS support, and engineering and technical support services related to the conduct of operational test and evaluation and exercise assessments.

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605118OTE / *Operational Test and Evaluation (OT&E)*	**Project (Number/Name)** 0605118OTE / *OT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Operational Test and Evaluation	74.583	76.838	78.047
FY 2015 Accomplishments: Operational Test and Evaluation Oversight This effort is in direct support of the Director's Title 10 responsibilities and is a continuing effort. Funding for FY 2015 provides Operational Test and Evaluation inputs for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary Reports for those programs designated for oversight by DOT&E and OUSD(AT&L). Key elements of DOT&E oversight authority are identified in Calendar Year 2015 Office of the Secretary of Defense Test and Evaluation Oversight List. Cybersecurity and Interoperability Evaluations DOT&E oversaw and resourced nine Combatant Command (CCMD) level and three Service level cybersecurity exercise assessments in FY 2015. In addition to the 12 exercise assessments, two assessments were performed during visits to operational sites not involved in an exercise. All DOT&E-sponsored assessments included a "fix" phase during which DOT&E-sponsored personnel helped CCMD and Service personnel address critical cybersecurity vulnerabilities. DOT&E also began a new Theater Cyber Readiness Campaign (TCRC) with U.S. Pacific Command involving more frequent and more focused assessment events which helped the command address persistent cybersecurity vulnerabilities. The cyber Red Teams which supported the FY 2015 assessments used validated cyber Tactics, Techniques, and Procedures (TTP's) and incorporated more advanced cyber threats. DOT&E initiated a Persistent Cyber OPFOR (PCO) and demonstrated this new capability for more representative and longer-duration adversary portrayal during U.S. Pacific Command's TCRC assessments. Fiscal year 2015 evaluations included trend analyses across prior year results, both within and across CCMDs. Critical findings were transmitted to Service and DoD leadership for their awareness and remediation actions.			
FY 2016 Plans: Operational Test and Evaluation Oversight This effort is in direct support of the Director's Title 10 responsibilities and is a continuing effort. Funding for FY 2016 provides Operational Test and Evaluation inputs for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary Reports for those programs designated for oversight by DOT&E and OUSD(AT&L). Key elements of DOT&E oversight authority are identified in Calendar Year 2016 Office of the Secretary of Defense Test and Evaluation Oversight List. Cybersecurity and Interoperability Evaluations			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605118OTE / *Operational Test and Evaluation (OT&E)*	**Project (Number/Name)** 0605118OTE / *OT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
DOT&E plans to shift resources toward TCRCs, which are designed to help CCMDs address critical cybersecurity vulnerabilities. Three CCMDs will each conduct a TCRC consisting of bi-monthly assessments with supporting PCO focused on improved cybersecurity technologies and/or TTPs to address problems identified in prior assessments; the campaigns will each culminate in a major exercise that examines a critical mission aided by the improved technologies and TTPs. DOT&E will oversee and resource approximately 10 CCMD level and Service level cybersecurity assessments in FY 2016, each including a "fix" phase as described above. The portrayal of advanced cyber threats and assessment of mission accomplishment in representative threat environments are primary planning objectives for assessments in FY 2016. Cyber Protection Teams will be assessed as they are encountered during PCO or exercise events. Fiscal year 2016 evaluations will include trend analyses across prior year results, both within and across CCMDs. Critical findings will be transmitted to Service and DoD leadership for their awareness and remediation actions. The DoD Enterprise Cyber Range Environment (DECRE) will support events for added threat realism during exercise assessments.			
FY 2017 Plans: Cybersecurity and Interoperability Evaluations DOT&E plans to continue to shift resources toward TCRCs, which are designed to help CCMDs address critical cybersecurity vulnerabilities. Five CCMDs will each conduct a Theater Cyber Readiness Campaign consisting of bi-monthly assessments focused on improved cybersecurity technologies or TTPs to address problems identified in prior assessments; the campaign will culminate in a major exercise that examines a critical mission aided by the improved technologies and TTPs. DOT&E will oversee and resource approximately 8 CCMD-level and Service-level assessments in FY 2017, each including a "fix" phase. DOT&E will continue to work with the CCMDs and cyber red teams to increase the portrayal of advanced cyber threats which are more representative of nation state threats. The goal is to have the majority of assessments in FY2017 include advanced threats that stress critical missions. Cyber Protection Teams will also be assessed as they are encountered during PCO or exercise events. Fiscal year 2017 evaluations will include trend analyses across prior year results, both within and across CCMDs. Critical findings will be transmitted to Service and DoD leadership for their awareness and remediation actions. The DoD Enterprise Cyber Range Environment (DECRE) and other cyber range assets with Red Teams portraying advanced cyber adversaries will support events for added threat realism.			
Accomplishments/Planned Programs Subtotals	74.583	76.838	78.047

	FY 2015	FY 2016
Congressional Add: Cyber Force Training and Resiliency	10.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605118OTE / *Operational Test and Evaluation (OT&E)*	**Project (Number/Name)** 0605118OTE / *OT&E*

	FY 2015	FY 2016
FY 2015 Accomplishments: Funding was applied at selected locations of the Cyber Mission Force, improving the capabilities and realism of Cyber Red Teams, and assessing Cyber Protection Teams and other network defenders on both ranges and operational networks. These resources were applied in coordination with US Cyber Command in order to maximize the training benefit to the Cyber Mission Force and to perform assessments of the resiliency of CCMD critical missions and the supporting cyber teams.		
Congressional Add: PACOM Cyber ***FY 2015 Accomplishments:*** Funding was applied to growing cyber-range capabilities at US Pacific Command.	4.880	-
Congressional Add: Cyber Red Team and Training ***FY 2015 Accomplishments:*** Funding to support Cyber Red Team and training exercises.	3.760	-
Congressional Adds Subtotals	18.640	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Performance Measure: Percentage of required operational test planning documents, assessments, and reports applicable to acquisition programs on the OSD Test and Evaluation Oversight List and other special interest programs/legacy systems that are completed and delivered to the appropriate decision makers on time.
The on-time completion rate was computed on the basis of the number of required products that were submitted within established time standards relative to the total number of such products that fell due during the fiscal year. Products included in the measure include beyond low-rate initial production reports, Test Plans, and Test and Evaluation Master Plans for operational test and evaluation oversight as well as assessment plans, “quick look” reports, and final reports for the information assurance and interoperability testing associated with scheduled test events.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	48.423	45.142	46.882	48.316	-	48.316	48.966	49.947	50.946	51.961	Continuing	Continuing
0605131OTE: *LFT&E*	48.423	45.142	46.882	48.316	-	48.316	48.966	49.947	50.946	51.961	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element consists of three programs: Live Fire Test and Evaluation, Joint Aircraft Survivability Program (JASP), and Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME).

This Program Element directly supports the Congressional statutory requirements for oversight of Live Fire Test and Evaluation (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 United States (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 also supports DoD's Joint Live Fire (JLF) Program and other LFT&E related initiatives. JLF was begun 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.

The Joint Aircraft Survivability Program is the DoD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the commanders of the USN Naval Air Systems Command, USA Aviation and Missile Command and USAF Life Cycle Management Center to coordinate and conduct 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 (PMSG), 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), is the Executive Agent for the Joint Live Fire Aircraft Systems Program managed by the Live Fire Test office of DOT&E.

The Joint Logistics Commanders Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) was chartered more than 40 years ago to serve as DoD's focal point for munitions effectiveness information. This has taken the form of widely used Joint Munitions Effectiveness Manuals (JMEMs) which address all major non-nuclear U.S. weapons. JTCG/ME authenticates weapons effectiveness data for use in training, systems acquisition, weapon procurement, and combat modeling and simulation. JMEMs are used by the Armed Forces of the U.S., NATO, and other allies to plan operational missions, support training and tactics development, and support force-level analyses. JTCG/ME also develops and standardizes methodologies for evaluation of munitions effectiveness and maintains databases for target vulnerability, munitions lethality, and weapon system accuracy. The JMEM requirements and development processes continues to be driven by operational lessons

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605131OTE *I Live Fire Test and Evaluation (LFT&E)*

learned (Enduring Freedom, Iraqi Freedom, Odyssey Dawn and Inherent Resolve) and the needs of Combatant Commands, Services, Military Targeting Committee, and Operational Users Working Groups input for specific weapon-target pairings and methodologies.

This program element also includes funds to obtain Federally Funded Research and Development Center (FFRDC) expertise in performing analyses in support of described Live Fire Test and Evaluation tasks, as well as travel funds to carry out the LFT&E, JASP and JTCG/ME programs.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	45.142	46.882	49.043	-	49.043
Current President's Budget	45.142	46.882	48.316	-	48.316
Total Adjustments	0.000	0.000	-0.727	-	-0.727
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation/Economic Adjustment	-	-	-0.727	-	-0.727

Change Summary Explanation

Inflation/Economic Adjustment of -$0.727 in FY 2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense			Date: February 2016
Appropriation/Budget Activity 0460 / 6	R-1 Program Element (Number/Name) PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	Project (Number/Name) 0605131OTE / *LFT&E*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0605131OTE: *LFT&E*	48.423	45.142	46.882	48.316	-	48.316	48.966	49.947	50.946	51.961	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Program Element consists of three programs: Live Fire Test and Evaluation, Joint Aircraft Survivability Program (JASP) and Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME).

This Program Element directly supports the Congressional statutory requirements for oversight of Live Fire Test and Evaluation (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 United States (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 also supports DoD's Joint Live Fire (JLF) Program and other LFT&E related initiatives. JLF was begun in 1984 under an Office of the Secretary of Defense (OSD) 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.

The Joint Aircraft Survivability Program is the DoD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the commanders of the USN Naval Air Systems Command, USA Aviation and Missile Command and USAF Life Cycle Management Center to coordinate and conduct 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 (PMSG), 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), is the Executive Agent for the Joint Live Fire Aircraft Systems Program managed by the Live Fire Test office of DOT&E.

The Joint Logistics Commanders' Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) was chartered more than 40 years ago to serve as DoD's focal point for munitions effectiveness information. This has taken the form of widely used Joint Munitions Effectiveness Manuals (JMEMs) which address all major non-nuclear U.S. weapons. JTCG/ME authenticates weapons effectiveness data for use in training, systems acquisition, weapon procurement, and combat modeling and simulation. JMEMs are used by the Armed Forces of the U.S., NATO, and other allies to plan operational missions, support training and tactics development, and support force-level analyses. JTCG/ME also develops and standardizes methodologies for evaluation of munitions effectiveness and maintains databases for target vulnerability, munitions lethality, and weapon system accuracy. The JMEM requirements and development processes continues to be driven by operational lessons

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

learned (Enduring Freedom, Iraqi Freedom, Odyssey Dawn and Inherent Resolve) and the needs of Combatant Commands (CCMDs), Services, Military Targeting Committee, and Operational Users Working Groups (OUWG) input for specific weapon-target pairings and methodologies.

This program element also includes funds to obtain Federally Funded Research and Development Center (FFRDC) expertise in performing analyses in support of described Live Fire Test and Evaluation tasks, as well as travel funds to carry out the LFT&E, JASP and JTCG/ME programs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Live Fire Test and Evaluation	45.142	46.882	48.316
FY 2015 Accomplishments: Live Fire Test and Evaluation Major Test and Evaluation Programs This is a continuing effort. The FY 2015 budget provides for Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and BLRIP reports for those programs designated for oversight by DOT&E and OUSD(AT&L). The oversight list is maintained continuously and published annually. JLF Programs and LFT&E Initiatives In FY15, JLF funded 26 projects and delivered 24 reports. Focus areas for JLF included projects that either 1) characterized new survivability issues; 2) characterized new lethality issues; 3) improved accuracy and fidelity of weapon data; 4) improved test methods; or 5) improved modeling and simulation methods. JLF Air projects evaluated the effects of internal configuration on helicopter crew compartment fires and conducted egress testing, as well as relevant model validation. Projects also investigated technologies/techniques to reduce generic vulnerabilities to all aircraft from threats such as MANPADS and small arms. Other projects included assessment of yawed penetration, missile debris, high energy lasers, the lethality of advanced projectiles, and performed a comparison of commonly used test threats. New projects investigated cabin mounted auxiliary fuel tank vulnerability, ballistically induced hydrodynamic ram effects, and characterized fragmentation grenades. JLF Land projects continued to investigate the vulnerability of vehicles to underbody blast and the lethality of U.S. weapons against typical in-theater targets. Land projects also focused on collecting data for validating modeling and simulation tools. Others included the assessment of the use and validity of manikins and helmet performance. New projects studied aging effects on fielded armor and irregular fragment penetration. JLF Sea projects continued to investigate ship vulnerabilities in the areas of commercial standards, equipment and component damage. The projects also assessed vulnerabilities of designs and components for new ships, fire damage to ship components, including bulkheads, insulation, and reconfigurable spaces. JLF Sea also investigated asymmetric boat threats, and began work on developing small boat vulnerability			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
models. New projects investigated deep depth underwater explosions, air gun configurations for full ship shock trial alternatives, and explored configurations for augmenting ballistic manikins. Additional Live Fire initiatives included continued efforts in support of Personnel Protection Equipment, including testing for combat helmets and body armor. The initiatives also addressed urgent requests from theater to deploy the Joint Combat Assessment Team to investigate and report to operators, restored the Navy Advanced Mine Simulation System (AMISS), and continued supporting the development of a ground vehicle survivability course. JASP In FY 2015 the JASP continued work on 40 multi-year RDT&E projects and initiated 24 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&E. In the area of susceptibility reduction, the JASP addressed improving the effectiveness and reducing the space, weight and power required for directed energy infrared countermeasures, electronic countermeasures technology and techniques, integrated aircraft survivability equipment, and aircrew situational awareness. In the area of vulnerability reduction, the JASP continued to address requirements for lighter and more effective vulnerability reduction technology (e.g., armor, fuel containment, fire suppression, and aircrew and passenger protection). In aircraft survivability Modeling and Simulation (M&S), the JASP continued to improve survivability M&S credibility, address operator requirements for survivability data, integrate DIA threat missile models into threat engagement codes, improve the assessment of aircrew and passenger injuries, and address M&S requirements identified by the joint aircraft survivability community. The JASP completed 33 reports documenting efforts accomplished in FY 2015. The JCAT continued 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 continued 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. Joint Technical Coordinating Group for Munitions Effectiveness JTCG/ME continued to field critical JMEM products to enable on-going CCMD operational Weaponeering and collateral damage estimates along with support to the Anti-air effectiveness community (operational, training, testing, and analysis). In support of operational commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME released the Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) Tool v1.2.2, and is finalizing the formal release of JMEM Weaponeering System (JWS) v2.2, and Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority v5.3.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
JWS v2.3 efforts included development and initial integration of enhanced data sets and capabilities include: new Imagery Interface to implement aimpoint development leveraging the Tasked Target Text Data (T3D) data format implemented by currently fielded mission planning systems. JWS software and T3D imagery interface modifications to support integration of Electronic Light Table (ELT) viewers. Development of Modernized Integrated Database (MIDB) and Joint Targeting Toolbox (JTT) interfaces to support connectivity. These developments will enable the integration of Weaponeering, Precision Point Mensuration (PPM) and Collateral Damage Estimation (CDE) via Digital Imagery Exploitation Engine (DIEE); currently under development. JWS v2.3 will also add the updated Gunship Delivery Accuracy Program (GDAP), Rotary Wing Delivery Accuracy Program (RWDAP), and Fast Integrated Structural Tool (FIST) v1.2. Based on the current guidance and direction from Joint Staff, JWS v2.2 and future versions will be released to several key coalition partners in support of current operations at Combined Air Operations Centers and Other Joint Commands. The JTCG/ME released Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) v1.2.2 with enhancements to support Inherent Resolve Kinetic Strike partners. This tool displays accredited Collateral Damage Estimate Level 1-5 A-C series CER reference tables. In addition, in direct support of the Combatant Commands and the CJCSI 3160.01, JTCG/ME accredited new Collateral Effects Radii (CER) Reference Tables and the corresponding extensible markup language (xml) file for DCiDE. Changes included additions for air burst munitions and nomenclature changes. Additional updates have been provided for newly fielded/ updated systems (e.g., GBU-49/BLU-133; AGM-176A; 155mm M109A M549A1 and M795 with Guided M1156 PGK Fuze). In support of advanced CDE techniques, the Collateral Effects Library (CEL) was developed. J-ACE simulates air-to-air and surface-to-air engagements to support the operational, training, test, and acquisition communities. J-ACE v5.3 includes extended and updated data sets for missile and aircraft target aero-performance, anti-air missile lethality, and air target vulnerability. This includes 17 new or updated BLUE/RED Air-to-Air (AA) or Surface-to-Air (SA) Government furnished missile and weapon fly out models. Additionally, Joint Anti Air Model (JAAM) was updated to include the effect of weapon system reliability on the probability of a successful engagement. J-ACE v5.3 includes the Hybrid Integration and Visualization Engine (HIVE)/Bluemax6 software interface for increased aircraft aero performance modeling with HOTAS (Hands On Throttle and Stick) and display capability. BlueMax6 provides a large library of BLUE and RED aircraft models developed by the acquisition and intelligence communities. J-ACE v5.3 also includes increased Electronic Counter-Measure (ECM) capabilities for an aircraft's ECM system jamming coverage. The new HIVE/ESAMS software interface enables Blue counter measure evaluations against Red Surface to Air Missiles. Initial dynamic visualization of an aircraft's ECM systems zones of coverage will allow pilots, while developing threat engagement or evasive maneuvers, to consider ECM protection with respect to the threat position. The latest updated Endgame Manager (EM) module is also included with new/updated weapons data sets and increased non-spherical blast capability. The product also includes a vast library of separate audit trail reports for each aircraft and weapon.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
JTCG/ME continued to develop JMEM data for the most critical Combatant Commander identified systems (Targets and Weapons). Accreditation of tri-Service JMEM operational tools continued as well as with expanded databases to incorporate newly fielded weapons (i.e., Air-to-Surface, Surface-to-Surface Direct/Indirect Fire, and Anti-air). JTCG/ME continues to conduct requirement analysis of the current JWS, J-ACE, and DCiDE software suites to enhance long-term software maintainability, connectivity, and flexibility to include structural and architectural changes. ***FY 2016 Plans:*** Live Fire Test and Evaluation Major Test and Evaluation Programs This is a continuing effort. The FY 2016 budget provides Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and BLRIP reports for those programs designated for oversight by DOT&E and OUSD(AT&L). The oversight list is maintained continuously and published annually. JLF Programs The FY 2016 JLF budget will support at least 28 projects. Focus areas for JLF included projects that either 1) characterized new survivability issues; 2) characterized new lethality issues; 3) improved accuracy and fidelity of weapon data; 4) improved test methods; or 5) improved modeling and simulation methods. JLF Air projects will continue to evaluate technologies and techniques to decrease vulnerabilities to all currently tested aircraft, against operationally relevant threats. The projects will focus on completing the assessment of CV-22 armor, ballistic vulnerability testing of fuel system on light aircraft, and percentage testing of oxygen prohibiting fuel tank ullage explosions. New projects will investigate new threat model development, V-22 wing fire protection, crew cabin fire mitigation. JLF Land projects will continue to investigate the vulnerability of vehicles to underbody blast and the lethality of U.S. weapons against typical in-theater targets. JLF Land projects will also provide the necessary data to enable improvement and validation of modeling and simulation tools. New projects will study fielded weapons effects to support warfighter collateral damage estimates and weapon lethality against urban structures. Some will study penetration profiles of ballistic backing materials for body armor testing, evaluate the optimization of 30mm urban combat mixes as well as new arena test data collection methodologies. JLF Sea projects will continue to develop key components of alternatives to traditional shock trials of ships and submarines. They will continue to investigate ship vulnerabilities in the areas of commercial standards, equipment and component damage, and will investigate vulnerabilities of designs and components for new ships.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Live Fire initiatives include continued efforts in support of Personnel Protection Equipment, including testing for combat helmets and body armor. Initiatives also include Missile Defense modeling updates as well as continued support of the development of a ground vehicle survivability course. JASP In FY 2016 the JASP will continue work on at least 28 multi-year RDT&E projects and initiate 19 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&E. In the area of susceptibility reduction, the JASP will address improving the effectiveness and reducing the space, weight and power required for directed energy infrared countermeasures, electronic countermeasures technology and techniques, and aircrew situational awareness. In the area of vulnerability reduction, the JASP will continue to address requirements for lighter and more effective vulnerability reduction technology (e.g., armor, fuel containment, fire suppression, and aircrew and passenger protection). In aircraft survivability M&S, the JASP will continue to improve survivability M&S credibility, address operator requirements for survivability data, integrate DIA threat missile models into threat engagement codes, improve the assessment of aircrew and passenger injuries, and address M&S requirements identified by the joint aircraft survivability community. 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&E. Joint Technical Coordinating Group for Munitions Effectiveness In support of operational Combatant Commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME will formally release JMEM Weaponeering System (JWS) v2.2 and Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.3 in 1QFY16 and 3QFY16, respectively. JTCG/ME will also finalize and release JWS v2.3 in FY16, while continuing to integrate and develop data, methodology, and major capabilities for future products: JWS v3.0, J-ACE v5.4, Joint Non-Kinetic Effectiveness (J-NKE) tools, Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) tool, and standalone US Only solutions for rapid, high priority requirements. JTCG/ME will also continue to enhance User interface and Training opportunities to optimize support to the Warfighter. Based on the current guidance and direction from Joint Staff, JWS 2.2 and future versions will be released to several key coalition partners in support of current operations at International Security Assistance Force (ISAF), Combined Air Operations Centers,			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
and Other Joint Commands. Given expanded release scope, JTCG/ME will continue to develop, where applicable, weaponeering solutions for high priority requirements (e.g. Probability of Kill (Pk) Look up Table Software, Quick Weaponeering Guides, etc.). JWS v2.3 efforts include final integration, operational testing, and execution of final release procedures of the completed product. The product will include enhanced capabilities: new/updated data sets, new Imagery Interface to implement aimpoint development leveraging the Tasked Target Text Data (T3D) data format implemented by currently fielded mission planning systems. JWS software and T3D imagery interface will support integration of Electronic Light Table (ELT) viewers. There will also be a Modernized Integrated Database (MIDB) and Joint Targeting Toolbox (JTT) interface with additional capabilities to support connectivity. These developments will enable the integration of Weaponeering, Precision Point Mensuration (PPM), and Collateral Damage Estimation (CDE). JWS v2.3 will also include updated Gunship Delivery Accuracy Program (GDAP), Rotary Wing Delivery Accuracy Program (RWDAP), and Fast Integrated Structural Tool (FIST) v1.2. JWS v2.3 is scheduled for 4QFY16 Release. JWS v3.0 efforts will include development and initial delivery/integration of enhanced capabilities to include: Joint Mean Area Effects (JMAE) v2.3, Non-Linear Blast Tool (NBT) v1.0, Moving Target Methodology (MTM), Small Precision Munition (SPM) methodology, bomb burial interim methodology, Average Matrix (AvMat) v2.0, Joint Gun Effectiveness Model (JGEM) v3.1, Fast Integrated Structural Tool (FIST) v2.0, Penetration and Cratering Effects (PCEffects), Bridge Analysis System (BAS), Linear Target Module (LTM), Precision Munitions Planning Tool (PMPT). J-ACE v5.4 efforts will include development, delivery, and initial integration of capabilities in the Joint Anti-air Model (JAAM) and Endgame Manager (EM) v5.4 modules. JAAM v5.4 capabilities include expanded use of Hybrid Integration and Visualization Engine (HIVE) and data/model assemblies for more efficient testing and interface along with enhancements in: weapons/ performance data, graphical user interface (GUI) and displays, lethal radius methodology, aero performance, detection methodology, and training/debrief tool interfaces. EM v5.4 capabilities will include enhancements in: burst point methodology, GUI, batch run/run time, enhanced fuze methodology, new shape charged jet, and near field trajectory. JAAM v5.4 will also include initial capability to evaluate two sided Suppression of Enemy Air Defense (SEAD) and Destruction of Enemy Air Defense (DEAD). DCiDE efforts will include realignment of DCiDE with enhancements to CJCSI 3160.01, develop/update critical requirements for CDE products, support the development of the weapon / warhead data for inclusion in the updated CDE Tables, and review CEL as part of operational tools.			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
J-NKE efforts will include continued validation of Cyber Capabilities Registry (CCR) data and Cyber JMEM (CJMEM) capability database population, develop process to identify Cyber Critical Elements based on existing kinetic process, identify/develop Cyber target vulnerability (TV) database, populate Jammer Effectiveness Tables (JET), improve existing Cyber Weaponeering modeling. JTCG/ME will continue to strengthen User interaction and training on products. The JWS training program will include multiple training sessions and Operational Users Working Group (OUWG) forums with new product release. The J-ACE formal training program will continue the expansion with more mature program and new product release. Additionally, JTCG/ME with continue to train DCiDE users to support Collateral Damage Estimation decisions. JTCG/ME will continue to develop a predictive capability to assess blast effects, body-on-body penetration, and blast-fragment synergism and incorporate these mechanisms in the JTCG/ME estimation process for small precision weapons. Furthermore, JTCG/ME will expand the use of computational physics to improve test design and data analysis to support both analytical model development and the characterization of weapons addressing blast interactions with structures, weapon fragmentation, and penetration mechanics. JTCG/ME will develop JMEM data for most critical Combatant Commander identified systems (Targets and Weapons), and reduce DVD-ROM update cycles through incremental updates and increased efficiencies. Accreditation of tri-Service JMEM operational tools will continue as well as expanding existing databases to incorporate newly fielded weapons (i.e., Air-to-Surface, Surface-to-Surface Direct/Indirect Fire, J-NKE and Anti-air). JTCG/ME will continue to conduct requirement analysis of the current JWS, J-ACE, DCiDE and DIEE software suites to finalize a road map in enhancing long-term software maintainability, connectivity, and flexibility to include structural and architectural changes.			
FY 2017 Plans: JLF Programs and LFT&E Initiatives The FY 2017 budget will support the Live Fire Test and Evaluation deputate's assessment of Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and the development of Live Fire Test and Evaluation reports for those programs designated for OSD oversight . The DOT&E oversight list is maintained continuously and published annually. The FY 2017 budget will support the planning and execution of tests of fielded systems not previously tested under the Live Fire Programs to support DOT&E and operator needs. New threats, missions, TTPs, and combat environments create the need for			

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017

these tests and an assessment of performance. JLF projects will be defined, planned and executed to provide survivability and lethality data on currently fielded U.S. systems.

JASP

In FY 2017 the JASP will continue work on at least 30 multi-year RDT&E projects and initiate about 10 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&E. In the area of susceptibility reduction, the JASP will address improving the effectiveness and reducing the space, weight and power required for directed energy infrared countermeasures, electronic countermeasures technology and techniques, aircrew situational awareness and urgent operator needs. In the area of vulnerability reduction, the JASP will continue to address requirements for lighter and more effective vulnerability reduction technology (e.g., armor, fuel containment, fire suppression, and aircrew and passenger protection). In aircraft survivability M&S, the JASP will continue to improve survivability M&S credibility, address operator requirements for survivability data, integrate DIA threat missile models into threat engagement codes, improve the assessment of aircrew and passenger injuries, and address M&S requirements identified by the joint aircraft survivability community.

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&E.

Joint Technical Coordinating Group for Munitions Effectiveness

In support of operational Combatant Commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME will formally release JMEM Weaponeering System (JWS) v3.0 Beta and Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.4 in 3QFY17. JTCG/ME will also continue to develop data, methodology, and major capabilities for future products based on requirements. Future products include: JWS v3.0, J-ACE v5.5, Joint Non-Kinetic Effectiveness (J-NKE), and Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) tool.

JWS v3.0 efforts will include final integration, operational testing, and execution of final release processes for completed product. The new product capabilities will include: Joint Mean Area Effects (JMAE) v2.3, Non-Linear Blast Tool (NBT) v1.0, Moving Target Methodology (MTM), Small Precision Munition (SPM) methodology, bomb burial interim methodology, Average Matrix (AvMat)

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
v2.0, Joint Gun Effectiveness Model (JGEM) v3.1, Fast Integrated Structural Tool (FIST) v2.0, Penetration and Cratering Effects (PCEffects), Bridge Analysis System (BAS), Linear Target Module (LTM), Precision Munitions Planning Tool (PMPT). J-ACE v5.4 efforts will include final integration, operational testing, and release of completed product. The new product capabilities will include expanded use of Hybrid Integration and Visualization Engine (HIVE) and data/model assemblies for more efficient testing and interface to Joint Anti-Air Model (JAAM). Enhancements to both JAAM and Endgame Manger will include: weapons/performance data, GUI and displays, lethal radius methodology, aero performance (HOTAS - Hands On Stick and Throttle), detection methodology, and training/debrief tool interfaces, burst point methodology, Graphical User Interface, batch run/run time, enhanced fuze methodology, new shape charged jet, and near field trajectory. J-ACE v5.4 will also include initial capability to evaluate two sided Suppression of Enemy Air Defense (SEAD) and Destruction of Enemy Air Defense (DEAD). J-ACE 5.4 is scheduled for 3QFY17 Release. J-ACE v5.5 efforts will include continued development of enhanced capabilities in the Joint Anti-air Model (JAAM) and Endgame Manager (EM) modules. J-ACE v5.5 capabilities will include expanded evaluation of two sided Suppression of Enemy Air Defense (SEAD) and Destruction of Enemy Air Defense (DEAD) along with enhanced capabilities in the following: weapons/ performance data assemblies, initial rotary wing capability, Infra-Red Counter Measures leveraging existing capabilities (e.g., MOSAIC, etc.), Ground-to-Air Guns leveraging existing capabilities (e.g., RADGUNS, etc.), interfaces to external models, EM Hit-to-Kill methodology, and EM Cloud of Points methodology. JTCG/ME will continue to strengthen User interaction and training on products. The JWS training program will include multiple training sessions and Operational Users Working Group (OUWG) forums with new product release. The J-ACE formal training program will continue to expansion with more matured program and new product release. Additionally, JTCG/ME with continue to train DCiDE users to support Collateral Damage Estimation decisions. JTCG/ME will develop JMEM data for most critical Combatant Commander identified systems (Targets and Weapons), and reduce DVD-ROM update cycles through incremental updates and increased efficiencies. Accreditation of tri-Service JMEM operational tools will continue as well as expanding existing databases to incorporate newly fielded weapons (i.e., Air-to-Surface, Surface-to-Surface Direct/Indirect Fire, non-kinetic and Anti-air). JTCG/ME will continue to conduct requirement analysis and development of future architectures for JWS, DCiDE and DIEE software suites to enable the integration of Weaponeering, Precision Point Mensuration (PPM) and Collateral Damage Estimation (CDE).			
Accomplishments/Planned Programs Subtotals	45.142	46.882	48.316

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense		Date: February 2016
Appropriation/Budget Activity 0460 / 6	**R-1 Program Element (Number/Name)** PE 0605131OTE / *Live Fire Test and Evaluation (LFT&E)*	**Project (Number/Name)** 0605131OTE / *LFT&E*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

(U) Performance Measure: Percentage of required live fire test planning documents, assessments, munition effectiveness manuals, and reports applicable to acquisition programs on the OSD Test and Evaluation Oversight List and other special interest programs/legacy systems that are completed and delivered to the appropriate decision makers on time. Percentage of required products, such as test planning documents, munitions effectiveness manuals, tactic-techniques and reports that are developed and delivered to program managers and customers on time.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605814OTE / *Operational Test Activities and Analyses*

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	62.157	70.346	63.763	52.631	-	52.631	58.002	59.631	50.042	51.438	Continuing	Continuing
0605814OTE: *OTA&A*	62.157	70.346	63.763	52.631	-	52.631	58.002	59.631	50.042	51.438	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); Threat Systems (TS); and Center for Countermeasures (CCM).

Joint Test and Evaluation projects are test and evaluation 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, appropriate combatant commanders, and the Services, provide non-materiel solutions that improve: 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. The JT&E projects address relevant joint war fighting issues in a joint test and evaluation environment by developing and providing new tactics, techniques, and procedures to improve joint capabilities and methodologies.

Threat Systems, based on a memorandum of agreement between the Director, Operational Test and Evaluation (DOT&E) and the Defense Intelligence Agency, provides DOT&E support in the areas of threat resource analysis, intelligence support and threat systems investments. Threat Systems 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 for Acquisition, Technology and Logistics. Threat Systems provides DOT&E assessment officers and other DOT&E activities with program specific threat intelligence support. Threat Systems also funds management, oversight, and development of common-use threat specifications for threat simulators, threat representative targets, and digital threat models used for test and evaluation.

The Center, a Joint Service Countermeasure (CM) T&E Activity, directs, coordinates, supports, and conducts independent countermeasure/counter-countermeasure (CCM) T&E activities of U.S. and foreign weapon systems, subsystems, sensors, and related components. The Center accomplishes this work in support of DOT&E, Deputy Assistant Secretary of Defense (DASD) for Developmental Test and Evaluation (DT&E), weapon system developers, and the Services. The Center's testing and analyses directly supports operational effectiveness and suitability evaluations of CM/CCM systems, such as missile warning and aircraft survivability equipment (ASE), used on rotary-wing and fixed-wing aircraft. The Center develops unique CM/CCM test equipment to support testing in operationally realistic environments. The Center determines effectiveness of precision guided weapon (PGW) systems and subsystems when operating in an environment degraded by CMs. Analysis and recommendations on CM/CCM effectiveness are provided to Service Program Offices, DOT&E, DASD (DT&E), and the Services. The Center also supports Service member exercises, training, and pre-deployment activities with expertise on CM/CCM technology and capabilities.

This Program Element includes funds to obtain Federally Funded Research and Development support and travel funds.

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Operational Test and Evaluation, Defense	Date: February 2016
Appropriation/Budget Activity 0460: *Operational Test and Evaluation, Defense* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605814OTE / *Operational Test Activities and Analyses*

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	70.346	46.838	47.810	-	47.810
Current President's Budget	70.346	63.763	52.631	-	52.631
Total Adjustments	0.000	16.925	4.821	-	4.821
• Congressional General Reductions	-	-1.075			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	18.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Enhancement for Fifth Generation Aerial Target (5GAT)	-	-	6.600	-	6.600
• Inflation/Economic Adjustment	-	-	-1.779	-	-1.779

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2015	FY 2016
Project: 0605814OTE: *OTA&A*		
Congressional Add: *Joint Test and Evaluation*	18.000	10.000
Congressional Add: *Threat Resource Analysis*	5.000	8.000
Congressional Add Subtotals for Project: 0605814OTE	23.000	18.000
Congressional Add Totals for all Projects	23.000	18.000

Change Summary Explanation

Enhancement for Fifth Generation Aerial Target (5GAT) of $6.6 in FY 2017
Inflation/Economic Adjustment of -$1.779 in FY 2017

Exhibit R-2A, RDT&E Project Justification: PB 2017 Operational Test and Evaluation, Defense			Date: February 2016
Appropriation/Budget Activity 0460 / 6	R-1 Program Element (Number/Name) PE 0605814OTE / *Operational Test Activities and Analyses*	Project (Number/Name) 0605814OTE / *OTA&A*	

COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
0605814OTE: *OTA&A*	62.157	70.346	63.763	52.631	-	52.631	58.002	59.631	50.042	51.438	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); Threat Systems (TS); and, the Center for Countermeasures (CCM).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Title: Operational Test Activities and Analyses	47.346	45.763	52.631

FY 2015 Accomplishments:

Joint Test and Evaluation (JT&E)

In FY 2015, JT&E closed two projects with six projects ongoing from FY 2014 and 2015. Joint Counter Low, Slow, Small Unmanned Aircraft Systems (UAS), closed in April 2015, developed and tested integrated air and missile defense operator procedures in order to increase an operator's ability to detect, track, and identify low, slow, and small UASs and provide timely notification to the air defense commander. The Unmanned Aircraft Systems Airspace Integration Joint Test, closed in July 2015, developed and tested DoD UAS procedures to support effective UAS flight operations in the National Airspace System.

Three new feasibility studies were conducted in FY 2015, two of which were selected to conduct joint tests.

Threat Systems

Threat Systems continued test planning working group participation and performed technical analyses to identify threat shortfalls; conducted special studies and provided current intelligence support tailored to specific U.S. weapon systems acquisitions; continued managing intelligence "deep dives" to produce intelligence in sufficient detail to develop new threat test assets; operated and maintained the modeling and simulation configuration control board for threat models and simulation used in test facilities; and continued the development and implementation of a tri-Service and Allied threat M&S roadmap to ensure infrared countermeasure systems have sufficient threat test assets. Threat Systems proposed, managed, and oversaw threat test assets funded by the Test Resource Management Center that support DOT&E-identified threat shortfalls, identified candidate threat systems from the various intelligence agencies for possible development of models for use in test and evaluation. Threat Systems also continued efforts to maintain a standard set of threat performance models.

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017

These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable, and promotes common solutions to Service threat representation needs.

The Center

The Center completed 35 T&E activities and analyzed and reported on more than 27 different systems, with special emphasis on aircraft survivability, CM/CCM employment, warning systems, and PGWs. Most programs supported received an independent assessment of our data/findings and test support for their CM/CCM evaluations. Approximately 51% of the Center's efforts were spent on aircraft survivability equipment (ASE) testing; with the majority of these efforts in support of rotary wing aircraft. About 22% of the Center's efforts were spent on PGW, foreign systems, and other types of field testing not related to ASE. Approximately 7% of the Center's efforts were dedicated to training support, with emphasis on CM–based, pre-deployment training for rotary wing units. Seventeen percent of the Center's efforts were spent on internal programs to improve test capabilities and to develop test methodologies for new types of T&E activities. The Center continued to develop multiple test tools for evaluating ASE infrared countermeasure (IRCM) systems and Hostile Fire Indication (HFI) systems. In addition, the Center is improving its electronic warfare capability with the development of the high-power Portable Range Threat Simulator (HPRTS) that will provide a more comprehensive integrated ASE T&E environment. Our support was distributed across all the Services, as well as intelligence agencies and research and development activities. About 3% of the Center's efforts consisted of providing subject matter expertise and other support not directly related to scheduled test activities.

The Center expanded its test capability this year. Two additional remote launchers were brought on board and used in testing. All three remote launchers were upgraded to handle newer missile threats, one of the new launchers is capable of firing larger format missiles. Multi-Spectral Sea and Land Target Simulator (MSALTS) and Joint Mobile Infrared Countermeasures Test System (JMITS) were upgraded to make their signatures more realistic. A Portable Radar Threat System was procured and began undergoing Verification, Validation, and Accreditation (VV&A) assessments. The JSIS van vehicle was completed late in FY 2015.

The Center provided expertise to many organizations and was actively involved in the following panels: Joint Expendable Countermeasures (JECM) Integrated Product Team, Joint Infrared Countermeasures Multi Sensing Symposia Working Group (MSS IRCM WG), Joint Aircraft Survivability Program (JASP), Foreign Material Exploitation Working Group, Foreign Material Program T&E Subcommittee, Joint Countermeasures T&E Working Group (JCMT&E WG), and JCMT&E WG Hostile Fire Indicator (HFI) subgroup lead.

FY 2016 Plans:

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Joint Test and Evaluation (JT&E) In FY 2016 JT&E has four projects slated to close and an estimated four projects ongoing from FY 2015 and 2016. One of the projects to close will be the Joint Base Architecture for Secure Industrial Control Systems Joint Test that is currently assessing and refining joint industrial control systems network tactics, techniques, and procedures to better identify, mitigate, and recover from advanced, persistent cyber-attacks. Another project anticipated to close is the Joint Tactical Air Picture Joint Test that will develop tactics, techniques, and procedures to provide an improved tactical air picture that decreases the risk of hostile attacks and fratricide as well as increases the effective use of integrated air and missile defense systems. Four new feasibility studies are expected to be conducted in FY 2016, two of which will be selected to conduct joint tests. Threat Systems In FY 2016, Threat Systems will continue test planning working group participation and perform technical analyses to identify threat shortfalls; 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: - Provide intelligence support to DOT&E staff to address specific questions on threat systems affecting programs on the OSD T&E Oversight list and provide briefings and special intelligence reports when necessary. - Support the US warfighter by providing threat intelligence to ensure operational and developmental testing occurs against realistic threat representations. - Sustain and manage threat M&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&E facilities and distributing performance and signature models to T&E users. - Review validation reports to independently ensure that correct threat data and critical parameters are presented in the report to assessment the threat representation’s capabilities to replicate a real world threat system. - Continue Identifying initiatives to improve cyberspace threat representation and prediction, cyber-economic threats to DoD systems, representative threat offensive and defensive cyber operations capabilities, and scalable cyberspace threat test environments that can interface with cyber test networks. - Manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD T&E Oversight List by conducting intelligence “deep dives” to produce intelligence in sufficient detail to develop new threat test assets. - Initiate new ITEAMS leading to the development of new threat systems for T&E based on the availability of funding.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Represent DOT&E at foreign material exchanges, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&E needs for foreign material, coordinate service requirements, and de-conflict and prioritize foreign material requirements for T&E. - Represent DOT&E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition. - Oversee legacy DOT&E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments. These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable, and promotes common solutions to Service threat representation needs. The Center The Center will complete Initial Operating Capability (IOC) development of the Joint Standard Instrumentation Suite (JSIS), which will be used to collect threat signature data for developing/improving threat models. The Center will complete the development of the HPRTS and perform a VV&A assessment of the system. The Center will continue working with the Threat Simulator Working Group (TSWG)-sponsored HSIG model. The Center will begin assessing Integrated ASE test methodologies to prepare for future T&E requirements of Integrated ASE system. The Center will work with Missile and Space Intelligence Center (MSIC) to expand the capabilities of the Remote Launching System (RLS) to handle newer threats needed to meet program T&E requirements. The Center is currently scheduled to test, analyze, and report on more than 30 systems and subsystems, with emphasis on rotary wing survivability, CM/CCM employment, and PGWs. Each program supported will receive an independent assessment of our data/findings and test support for CM/CCM evaluations. The Center will continue to emphasize support of DOT&E priorities, with a clear focus on Title 10 weapons systems, aircraft survivability and hostile fire initiatives. The Center will continue to conduct ongoing investigations towards determining and filling the gaps in EW and multimode system testing. In addition to these test activities, the Center will continue to provide CM expertise in pre-deployment events and training, as well as CM/CCM-focused tactics, techniques and procedures (TTP) development. Our support will be distributed across all the Services, as well as intelligence agencies and research and development activities. The Center will provide expertise to many organizations and will continue to be actively involved in the following panels: JECM Integrated Product Team, Joint Infrared Countermeasures Multi Sensing Symposia Working Group (MSS IRCM WG), JASP, Foreign Material Exploitation Working Group, Foreign Material Program T&E Subcommittee, JCMT&E WG, and JCMT&E WG HFI subgroup lead. ***FY 2017 Plans:***			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
Joint Test and Evaluation (JT&E) In FY2017 JT&E plans on closing two projects that were started in FY 2015. One, the Joint Pre-/Post-Attack Operations Supporting Survivability & Endurability Joint Test, expected to close in June 2017, will develop and test procedures for protective posturing and mobile support that will mitigate electromagnetic-pulse effects on mission critical functions. The other project to close in FY2017 is the Joint Advanced Sensor to Shooter Joint Test, which is looking to develop, test and evaluate tactics, techniques, and procedures to more efficiently and effectively gain and maintain battle space awareness through integration of rapidly developed capabilities to support combat operations in anti-access and active denial environments Two projects from FY 2016 will continue through FY 2017. Four new feasibility studies are expected be conducted in FY 2017, two of which will be selected to conduct joint tests. Threat Systems In FY 2017, Threat Systems will continue test planning working group participation and perform technical analyses to identify threat shortfalls; 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: - Continue to provide intelligence support to DOT&E staff to address specific questions on threat systems affecting programs on the OSD T&E Oversight list and provide briefings and special intelligence reports when necessary. - 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. - Continue identifying initiatives to conduct offensive cyber operations (OCO) and defensive cyber operations (DCO) without significantly impacting critical operational capabilities. - Continue initiatives to improve satellite and space threat representations. - Support the US warfighter by providing threat intelligence to ensure operational and developmental testing occurs against realistic threat representations. - Sustain and manage threat M&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&E facilities and distributing performance and signature models to T&E users. - Manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD Oversight T&E List by conducting intelligence “deep dives” to produce intelligence in sufficient detail to develop new threat test assets.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
- Represent DOT&E at foreign material exchanges, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&E needs for foreign material, coordinate service requirements, and de-conflict and prioritize foreign material requirements for T&E. - Review validation reports to independently ensure that correct threat data and critical parameters are presented in the report to assess the threat representation's capabilities to replicate a real world threat system. - Represent DOT&E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition. - Oversee legacy DOT&E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments. - Continue ITEAMS leading to the development of new threat systems for T&E. These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable, and promotes common solutions to Service threat representation needs. The Center The Center will test, analyze, and report on more than 30 systems, with special emphasis on aircraft survivability, CM/CCM employment, warning and targeting systems, and PGWs. Each program supported will receive an independent assessment of our data/findings and test support for CM/ CCM evaluations. The Center will continue to emphasize support of the DOT&E enterprise, with a clear focus on Title 10 weapons systems, aircraft survivability and hostile fire initiatives. Furthermore, the Center will continue to provide CM expertise in pre-deployment events and training, as well as CM/CCM-focused TTP development. The Center plans to complete an Integrated Aircraft Survivability Equipment Test Methodology assessment which will help define new T&E capabilities needed to meet future program T&E requirements. The Center will continue Improvement and Modernization (I&M) efforts to improve our T&E capabilities. The Center will continue to work with the TSWG-sponsored HSIG model. Our support will be distributed across all the Services, as well as intelligence agencies and research and development activities. The Center will provide expertise to many organizations and will continue to be actively involved in the following panels: JECM Integrated Product Team, Joint Infrared Countermeasures Multi Sensing Symposia Working Group (MSS IRCM WG), JASP, Foreign Material Exploitation Working Group, Foreign Material Program T&E Subcommittee, JCMT&E WG, and JCMT&E WG HFI subgroup lead. 5th Generation Aerial Target (5GAT)			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2015	FY 2016	FY 2017
In FY17, the 5th Generation Aerial Target program will complete the government owned air vehicle and subsystems layout. The program will begin tooling and parts fabrication using carbon composite manufacturing methods. In addition, the program will begin the electronic attack equipment integration.			
Accomplishments/Planned Programs Subtotals	47.346	45.763	52.631

	FY 2015	FY 2016
Congressional Add: Joint Test and Evaluation ***FY 2015 Accomplishments:*** Funding provided one additional Joint Test and six Quick Reaction Tests. ***FY 2016 Plans:*** Funding is anticipated to provide nine additional Quick Reaction Tests.	18.000	10.000
Congressional Add: Threat Resource Analysis ***FY 2015 Accomplishments:*** Congressional add funds were used to increase threat intelligence support for cyber, space and ballistic missile to DOT&E to define future threats and improve threat realism in testing; also expanded the modeling and simulation configuration management to include Radio Frequency. ***FY 2016 Plans:*** Funds will be used to improve threat realism for testing. Specifically, increase cyber intelligence support to improve emerging cyberspace threat representation, prediction and threat environments; validate electronic warfare/cyber convergence efforts; and standardize approach for cyber threat folder creation. Funds will also be used to extend validation support, improve automated tools that provide intelligence support, and improve the fidelity and availability of models and simulations needed for Test & Evaluation.	5.000	8.000
Congressional Adds Subtotals	23.000	18.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not Applicable

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E. Performance Metrics

Performance Measure: Percentage of required products, such as test planning documents, tactics, techniques, procedures, threat characteristics, assessments, and reports that are developed and delivered to program managers and customers on time. The on-time completion rate was computed on the basis of the number of required products that were submitted within established time standards relative to the total number of such products that fell due during the fiscal year.