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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense-Wide**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense-Wide • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
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 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	17,317,849	17,217,225	269,647	17,486,872	18,329,861	137,087	18,466,948
Total Research, Development, Test & Evaluation	17,317,849	17,217,225	269,647	17,486,872	18,329,861	137,087	18,466,948

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Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Basic Research	555,302	616,259		616,259	591,669		591,669
Applied Research	1,623,437	1,650,684	45,000	1,695,684	1,751,578		1,751,578
Advanced Technology Development	2,810,074	2,925,352	22,700	2,948,052	3,229,821		3,229,821
Advanced Component Development And Prototypes	6,141,985	6,318,320	17,300	6,335,620	6,816,554		6,816,554
System Development And Demonstration	679,168	625,538	10,000	635,538	545,258		545,258
Management Support	1,160,922	1,021,013		1,021,013	856,071		856,071
Operational System Development	4,346,961	4,060,059	174,647	4,234,706	4,538,910	137,087	4,675,997
Total Research, Development, Test & Evaluation	17,317,849	17,217,225	269,647	17,486,872	18,329,861	137,087	18,466,948
Summary Recap of FYDP Programs							
General Purpose Forces	80,617	77,673		77,673	77,601		77,601
Intelligence and Communications	497,519	454,264		454,264	511,639		511,639
Research and Development	12,736,511	12,925,753	95,000	13,020,753	13,548,659		13,548,659
Central Supply and Maintenance	27,160	23,940		23,940	26,375		26,375
Training Medical and Other	38,245	38,950		38,950	43,811		43,811
Administration and Associated Activities	39,186	40,619		40,619	39,921		39,921
Special Operations Forces	347,676	462,721	11,200	473,921	468,083		468,083
Classified Programs	3,550,935	3,193,305	163,447	3,356,752	3,613,772	137,087	3,750,859
Total Research, Development, Test & Evaluation	17,317,849	17,217,225	269,647	17,486,872	18,329,861	137,087	18,466,948



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Chemical and Biological Defense Program	1,111,246	1,040,794	50,000	1,090,794	1,006,692		1,006,692
Defense Advanced Research Projects Agency	2,752,656	2,870,932	45,000	2,915,932	2,972,693		2,972,693
Defense Contract Management Agency	13,812	12,530		12,530	12,542		12,542
Defense Human Resources Activity	19,410	19,430		19,430	20,495		20,495
Defense Intelligence Agency							
Defense Information Systems Agency	237,192	215,982		215,982	219,155		219,155
Defense Logistics Agency	233,477	227,124		227,124	212,679		212,679
Defense Security Cooperative Agency	16,807	12,386		12,386	10,518		10,518
Defense Security Service	7,552	12,658		12,658	19,662		19,662
Defense Technical Information Center	56,024	50,789		50,789	51,775		51,775
Defense Threat Reduction Agency	501,382	487,802		487,802	491,661		491,661
Missile Defense Agency	5,706,734	5,647,845		5,647,845	6,190,381		6,190,381
National Geospatial Intelligence Agency							
National Security Agency							
Office of Secretary of Defense	2,399,427	2,619,089		2,619,089	2,686,665		2,686,665
U.S., Special Operations Command	368,662	483,801	11,200	495,001	538,445		538,445
The Joint Staff	125,016	150,372		150,372	84,796		84,796
Washington Headquarters Services	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	17,317,849	17,217,225	269,647	17,486,872	18,329,861		18,466,948

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1	0601000BR	DTRA Basic Research Initiative	01	44,783	37,778		37,778	38,436		38,436	U
2	0601101E	Defense Research Sciences	01	293,284	332,146		332,146	333,119		333,119	U
3	0601110D8Z	Basic Research Initiatives	01	11,682	44,500		44,500	42,022		42,022	U
4	0601117E	Basic Operational Medical Research Science	01	48,066	60,757		60,757	56,544		56,544	U
5	0601120D8Z	National Defense Education Program	01	72,866	58,405		58,405	49,453		49,453	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	33,883	34,412		34,412	25,834		25,834	U
7	0601384BP	Chemical and Biological Defense Program	01	50,738	48,261		48,261	46,261		46,261	U
		Basic Research		555,302	616,259		616,259	591,669		591,669	
8	0602000D8Z	Joint Munitions Technology	02	17,693	20,037		20,037	19,352		19,352	U
9	0602115E	Biomedical Technology	02	121,152	114,790	45,000	159,790	114,262		114,262	U
10	0602234D8Z	Lincoln Laboratory Research Program	02	40,469	47,807		47,807	51,026		51,026	U
11	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	33,543	41,905		41,905	48,226		48,226	U
12	0602303E	Information & Communications Technology	02	370,643	324,407		324,407	356,358		356,358	U
13	0602304E	Cognitive Computing Systems	02	15,847							U
14	0602383E	Biological Warfare Defense	02	25,648	43,780		43,780	29,265		29,265	U
15	0602384BP	Chemical and Biological Defense Program	02	195,160	226,317		226,317	208,111		208,111	U
16	0602668D8Z	Cyber Security Research	02	11,637	14,979		14,979	13,727		13,727	U
17	0602670D8Z	Human, Social and Culture Behavior Modeling (HSCB) Applied Research	02	2,000							U

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18 0602702E	Tactical Technology	02	218,482	299,734		299,734	314,582		314,582	U
19 0602715E	Materials and Biological Technology	02	158,948	150,389		150,389	220,115		220,115	U
20 0602716E	Electronics Technology	02	222,287	169,203		169,203	174,798		174,798	U
21 0602718BR	Weapons of Mass Destruction Defeat Technologies	02	151,669	151,443		151,443	155,415		155,415	U
22 0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	10,699	9,143		9,143	8,824		8,824	U
23 1160401BB	SOF Technology Development	02	27,560	36,750		36,750	37,517		37,517	U
	Applied Research		1,623,437	1,650,684	45,000	1,695,684	1,751,578		1,751,578	
24 0603000D8Z	Joint Munitions Advanced Technology	03	19,709	26,650		26,650	25,915		25,915	U
25 0603121D8Z	SO/LIC Advanced Development	03	17,212	8,670		8,670				U
26 0603122D8Z	Combating Terrorism Technology Support	03	98,197	94,541		94,541	71,171		71,171	U
27 0603133D8Z	Foreign Comparative Testing	03		22,000		22,000	21,782		21,782	U
28 0603160BR	Counterproliferation Initiatives - Proliferation Prevention and Defeat	03	282,719	291,694		291,694	290,654		290,654	U
29 0603175C	Ballistic Missile Defense Technology	03	10,372							U
30 0603176C	Advanced Concepts and Performance Assessment	03	6,919	8,470		8,470	12,139		12,139	U
31 0603177C	Discrimination Sensor Technology	03	29,642	36,610		36,610	28,200		28,200	U
32 0603178C	Weapons Technology	03	45,268	54,068		54,068	45,389		45,389	U
33 0603179C	Advanced C4ISR	03	35,421	13,284		13,284	9,876		9,876	U
34 0603180C	Advanced Research	03	23,025	16,584		16,584	17,364		17,364	U

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35	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,595	19,308		19,308	18,802		18,802	U
36	0603264S	Agile Transportation for the 21st Century (AT21) - Theater Capability	03	3,754	2,544		2,544	2,679		2,679	U
37	0603274C	Special Program - MDA Technology	03	35,822	40,433		40,433	64,708		64,708	U
38	0603286E	Advanced Aerospace Systems	03	146,789	129,723		129,723	185,043		185,043	U
39	0603287E	Space Programs and Technology	03	127,948	179,883		179,883	126,692		126,692	U
40	0603288D8Z	Analytic Assessments	03		12,000		12,000	14,645		14,645	U
41	0603289D8Z	Advanced Innovative Analysis and Concepts	03		50,000		50,000	59,830		59,830	U
42	0603294C	Common Kill Vehicle Technology	03	67,796	25,639		25,639	46,753		46,753	U
43	0603384BP	Chemical and Biological Defense Program - Advanced Development	03	140,595	132,674	22,700	155,374	140,094		140,094	U
44	0603527D8Z	RETRACT LARCH	03					118,666		118,666	U
45	0603618D8Z	Joint Electronic Advanced Technology	03	8,772	10,949		10,949	43,966		43,966	U
46	0603648D8Z	Joint Capability Technology Demonstrations	03	153,770	119,790		119,790	141,540		141,540	U
47	0603662D8Z	Networked Communications Capabilities	03	5,075				6,980		6,980	U
48	0603668D8Z	Cyber Security Advanced Research	03	11,150							U
49	0603670D8Z	Human, Social and Culture Behavior Modeling (HSCB) Advanced Development	03	2,000							U
50	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	59,996	90,966		90,966	157,056		157,056	U
51	0603699D8Z	Emerging Capabilities Technology Development	03	52,535	33,658		33,658	33,515		33,515	U

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52 0603712S	Generic Logistics R&D Technology Demonstrations	03	16,531	21,331		21,331	16,543		16,543	U
53 0603713S	Deployment and Distribution Enterprise Technology	03	30,009	29,683		29,683	29,888		29,888	U
54 0603716D8Z	Strategic Environmental Research Program	03	60,651	57,714		57,714	65,836		65,836	U
55 0603720S	Microelectronics Technology Development and Support	03	80,717	82,700		82,700	79,037		79,037	U
56 0603727D8Z	Joint Warfighting Program	03	3,325	5,396		5,396	9,626		9,626	U
57 0603739E	Advanced Electronics Technologies	03	92,001	92,246		92,246	79,021		79,021	U
58 0603760E	Command, Control and Communications Systems	03	229,510	239,265		239,265	201,335		201,335	U
59 0603766E	Network-Centric Warfare Technology	03	261,613	360,426		360,426	452,861		452,861	U
60 0603767E	Sensor Technology	03	268,754	302,821		302,821	257,127		257,127	U
61 0603769SE	Distributed Learning Advanced Technology Development	03	12,116	10,692		10,692	10,771		10,771	U
62 0603781D8Z	Software Engineering Institute	03	18,167	15,754		15,754	15,202		15,202	U
63 0603826D8Z	Quick Reaction Special Projects	03	69,508	59,235		59,235	90,500		90,500	U
64 0603828J	Joint Experimentation	03	12,067							U
65 0603832D8Z	DoD Modeling and Simulation Management Office	03	31,222	2,995		2,995				U
66 0603833D8Z	Engineering Science & Technology	03					18,377		18,377	U
67 0603941D8Z	Test & Evaluation Science & Technology	03	81,247	81,033		81,033	82,589		82,589	U
68 0604055D8Z	Operational Energy Capability Improvement	03	47,240	46,300		46,300	37,420		37,420	U

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69 0303310D8Z	CWMD Systems	03	47,819	46,001		46,001	42,488		42,488	U
70 1160402BB	SOF Advanced Technology Development	03	44,496	51,622		51,622	57,741		57,741	U
	Advanced Technology Development		2,810,074	2,925,352	22,700	2,948,052	3,229,821		3,229,821	
71 0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	46,889	41,014		41,014	31,710		31,710	U
72 0603527D8Z	RETRACT LARCH	04	18,625							U
73 0603600D8Z	WALKOFF	04	63,988	90,558		90,558	90,567		90,567	U
74 0603714D8Z	Advanced Sensors Application Program	04	19,190	19,490		19,490	15,900		15,900	U
75 0603851D8Z	Environmental Security Technical Certification Program	04	64,756	63,871		63,871	52,758		52,758	U
76 0603881C	Ballistic Missile Defense Terminal Defense Segment	04	251,899	163,892		163,892	228,021		228,021	U
77 0603882C	Ballistic Missile Defense Midcourse Defense Segment	04	1,064,445	873,923		873,923	1,284,891		1,284,891	U
78 0603884BP	Chemical and Biological Defense Program - Dem/Val	04	189,193	163,236	17,300	180,536	172,754		172,754	U
79 0603884C	Ballistic Missile Defense Sensors	04	340,391	270,901		270,901	233,588		233,588	U
80 0603890C	BMD Enabling Programs	04	368,965	401,971		401,971	409,088		409,088	U
81 0603891C	Special Programs - MDA	04	266,749	310,261		310,261	400,387		400,387	U
82 0603892C	AEGIS BMD	04	885,704	764,224		764,224	843,355		843,355	U
83 0603893C	Space Tracking & Surveillance System	04	41,618	31,331		31,331	31,632		31,632	U
84 0603895C	Ballistic Missile Defense System Space Programs	04	6,412	6,389		6,389	23,289		23,289	U

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85 0603896C	Ballistic Missile Defense Command and Control, Battle Management and Communicati	04	390,207	428,277		428,277	450,085		450,085	U
86 0603898C	Ballistic Missile Defense Joint Warfighter Support	04	41,051	46,387		46,387	49,570		49,570	U
87 0603904C	Missile Defense Integration & Operations Center (MDIOC)	04	50,271	58,503		58,503	49,211		49,211	U
88 0603906C	Regarding Trench	04	14,525	16,199		16,199	9,583		9,583	U
89 0603907C	Sea Based X-Band Radar (SBX)	04	70,336	64,409		64,409	72,866		72,866	U
90 0603913C	Israeli Cooperative Programs	04	283,782	268,842		268,842	102,795		102,795	U
91 0603914C	Ballistic Missile Defense Test	04	342,695	366,302		366,302	274,323		274,323	U
92 0603915C	Ballistic Missile Defense Targets	04	501,170	455,068		455,068	513,256		513,256	U
93 0603920D8Z	Humanitarian Demining	04	11,395	10,180		10,180	10,129		10,129	U
94 0603923D8Z	Coalition Warfare	04	9,597	10,125		10,125	10,350		10,350	U
95 0604016D8Z	Department of Defense Corrosion Program	04	19,637	12,907		12,907	1,518		1,518	U
96 0604115C	Technology Maturation Initiatives	04					96,300		96,300	U
97 0604250D8Z	Advanced Innovative Technologies	04	125,811	174,752		174,752	469,798		469,798	U
98 0604400D8Z	Department of Defense (DoD) Unmanned Aircraft System (UAS) Common Development	04	7,977	7,791		7,791	3,129		3,129	U
99 0604445J	Wide Area Surveillance	04	25,955	53,000		53,000				U
100 0604670D8Z	Human, Social and Culture Behavior Modeling (HSCB) Research and Engineering	04	2,000							U
101 0604775D8Z	Defense Rapid Innovation Program	04	175,000	225,000		225,000				U

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

Program Line Element No Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
102 0604787J	Joint Systems Integration	04	5,714	7,002		7,002				U
103 0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	3,834				25,200		25,200	U
104 0604828J	Joint FIRES Integration and Interoperability Team	04	6,405	7,102		7,102				U
105 0604873C	Long Range Discrimination Radar (LRDR)	04		50,500		50,500	137,564		137,564	U
106 0604874C	Improved Homeland Defense Interceptors	04		99,500		99,500	278,944		278,944	U
107 0604876C	Ballistic Missile Defense Terminal Defense Segment Test	04		111,366		111,366	26,225		26,225	U
108 0604878C	Aegis BMD Test	04		89,628		89,628	55,148		55,148	U
109 0604879C	Ballistic Missile Defense Sensor Test	04		71,309		71,309	86,764		86,764	U
110 0604880C	Land-Based SM-3 (LBSM3)	04	124,568	123,444		123,444	34,970		34,970	U
111 0604881C	AEGIS SM-3 Block IIA Co-Development	04	297,169	263,695		263,695	172,645		172,645	U
112 0604887C	Ballistic Missile Defense Midcourse Segment Test	04		79,877		79,877	64,618		64,618	U
113 0605170D8Z	Support to Networks and Information Integration	04		12,482		12,482				U
114 0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	3,150	2,651		2,651	2,660		2,660	U
115 0305103C	Cyber Security Initiative	04	912	961		961	963		963	U
	Advanced Component Development And Prototypes		6,141,985	6,318,320	17,300	6,335,620	6,816,554		6,816,554	
116 0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	7,859	7,925		7,925	8,800		8,800	U

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Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
117	0604165D8Z	Prompt Global Strike Capability Development	05	63,491	95,626		95,626	78,817		78,817	U
118	0604384BP	Chemical and Biological Defense Program - EMD	05	415,467	335,883	10,000	345,883	303,647		303,647	U
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	29,015	25,429		25,429	23,424		23,424	U
120	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	16,938	17,537		17,537	14,285		14,285	U
121	0605000BR	Weapons of Mass Destruction Defeat Capabilities	05	12,511	6,887		6,887	7,156		7,156	U
122	0605013BL	Information Technology Development	05	13,812	12,530		12,530	12,542		12,542	U
123	0605021SE	Homeland Personnel Security Initiative	05	386	286		286	191		191	U
124	0605022D8Z	Defense Exportability Program	05	3,640	3,238		3,238	3,273		3,273	U
125	0605027D8Z	OUSD(C) IT Development Initiatives	05	6,599	6,500		6,500	5,962		5,962	U
126	0605070S	DOD Enterprise Systems Development and Demonstration	05	25,217	15,326		15,326	13,412		13,412	U
127	0605075D8Z	DCMO Policy and Integration	05	19,318	19,324		19,324	2,223		2,223	U
128	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	44,260	41,465		41,465	31,660		31,660	U
129	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05		10,135		10,135	13,085		13,085	U
130	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	5,659	9,546		9,546	7,209		7,209	U
131	0303141K	Global Combat Support System	05	11,514	14,241		14,241	15,158		15,158	U

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132 0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	3,482	3,660		3,660	4,414		4,414	U
	System Development And Demonstration		679,168	625,538	10,000	635,538	545,258		545,258	
133 0604774D8Z	Defense Readiness Reporting System (DRRS)	06	6,353	5,607		5,607	5,581		5,581	U
134 0604875D8Z	Joint Systems Architecture Development	06	2,389	3,087		3,087	3,081		3,081	U
135 0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	175,908	239,163		239,163	229,125		229,125	U
136 0604942D8Z	Assessments and Evaluations	06	2,051	15,639		15,639	28,674		28,674	U
137 0604943D8Z	Thermal Vicar	06	8,099							U
138 0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	27,491	27,124		27,124	45,235		45,235	U
139 0605104D8Z	Technical Studies, Support and Analysis	06	21,200	24,466		24,466	24,936		24,936	U
140 0605117D8Z	Foreign Materiel Acquisition and Exploitation	06	46,911	46,781		46,781				U
141 0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	37,314	43,176		43,176	35,471		35,471	U
142 0605128D8Z	Classified Program USD(P)	06	99,957	100,000		100,000				U
143 0605130D8Z	Foreign Comparative Testing	06	11,877							U
144 0605142D8Z	Systems Engineering	06	38,205	44,683		44,683	37,655		37,655	U
145 0605151D8Z	Studies and Analysis Support - OSD	06	5,806	2,660		2,660	3,015		3,015	U
146 0605161D8Z	Nuclear Matters-Physical Security	06	4,816	4,359		4,359	5,287		5,287	U
147 0605170D8Z	Support to Networks and Information Integration	06	6,090	27,861		27,861	5,289		5,289	U

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Program Line Element No Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
148 0605200D8Z	General Support to USD (Intelligence)	06	6,466	2,850		2,850	2,120		2,120	U
149 0605384BP	Chemical and Biological Defense Program	06	92,265	105,927		105,927	102,264		102,264	U
150 0605502BP	Small Business Innovative Research - Chemical Biological Def	06	14,955							U
151 0605502BR	Small Business Innovation Research	06	9,700							U
152 0605502C	Small Business Innovation Research - MDA	06	74,888							U
153 0605502D8Z	Small Business Innovative Research	06	55,640							U
154 0605502E	Small Business Innovative Research	06	80,025							U
155 0605502J	Small Business Innovative Research	06	2,177							U
156 0605502KA	Small Business Innovative Research	06		400		400				U
157 0605502S	Small Business Innovative Research	06	5,829							U
158 0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	1,790	1,631		1,631	2,169		2,169	U
159 0605798D8Z	Defense Technology Analysis	06	9,393	22,074		22,074	13,960		13,960	U
160 0605801KA	Defense Technical Information Center (DTIC)	06	56,024	50,389		50,389	51,775		51,775	U
161 0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	6,908	8,452		8,452	9,533		9,533	U
162 0605804D8Z	Development Test and Evaluation	06	18,698	19,160		19,160	17,371		17,371	U
163 0605898E	Management HQ - R&D	06	71,659	71,362		71,362	71,571		71,571	U
164 0606100D8Z	Budget and Program Assessments	06	4,005	4,093		4,093	4,123		4,123	U

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165	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	5,161	1,952		1,952	1,946		1,946	U
166	0204571J	Joint Staff Analytical Support	06	5,591	10,321		10,321	7,673		7,673	U
169	0303166J	Support to Information Operations (IO) Capabilities	06	8,348	11,552		11,552	10,413		10,413	U
170	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06					971		971	U
171	0305193D8Z	Cyber Intelligence	06	7,586	6,738		6,738	6,579		6,579	U
173	0804767D8Z	COCOM Exercise Engagement and Training Transformation (CE2T2) - MHA	06	38,245	38,950		38,950	43,811		43,811	U
174	0901598C	Management HQ - MDA	06	34,712	35,598		35,598	35,871		35,871	U
175	0901598D8W	Management Headquarters WHS	06	607	612		612				U
176	0903230D8W	WHS - Mission Operations Support - IT	06					1,072		1,072	U
177	0909999D8Z	Financing for Cancelled Account Adjustments	06	941							U
9999	9999999999	Classified Programs		54,842	44,346		44,346	49,500		49,500	U
		Management Support		1,160,922	1,021,013		1,021,013	856,071		856,071	
178	0604130V	Enterprise Security System (ESS)	07	7,552	3,988		3,988	7,929		7,929	U
179	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	3,270	1,750		1,750	1,750		1,750	U
180	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	287	286		286	294		294	U
181	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	9,638	14,756		14,756	22,576		22,576	U

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182	0607310D8Z	CWMD Systems: Operational Systems Development	07	1,872	2,948		2,948	1,901		1,901	U
183	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	13,250	10,350		10,350	8,474		8,474	U
184	0607384BP	Chemical and Biological Defense (Operational Systems Development)	07	12,873	28,496		28,496	33,561		33,561	U
185	0607828J	Joint Integration and Interoperability	07	11,847	11,968		11,968				U
186	0208043J	Planning and Decision Aid System (PDAS)	07	2,838	1,842		1,842	3,061		3,061	U
187	0208045K	C4I Interoperability	07	67,027	63,558		63,558	64,921		64,921	U
189	0301144K	Joint/Allied Coalition Information Sharing	07	6,524	3,931		3,931	3,645		3,645	U
193	0302016K	National Military Command System-Wide Support	07	501	924		924	963		963	U
194	0302019K	Defense Info Infrastructure Engineering and Integration	07	11,031	9,612		9,612	10,186		10,186	U
195	0303126K	Long-Haul Communications - DCS	07	45,536	25,325		25,325	36,883		36,883	U
196	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	14,782	12,671		12,671	13,735		13,735	U
197	0303135G	Public Key Infrastructure (PKI)	07	1,060	222		222	6,101		6,101	U
198	0303136G	Key Management Infrastructure (KMI)	07	33,279	32,698		32,698	43,867		43,867	U
199	0303140D8Z	Information Systems Security Program	07	10,313	11,288		11,288	8,957		8,957	U
200	0303140G	Information Systems Security Program	07	181,567	138,854		138,854	146,890		146,890	U
201	0303150K	Global Command and Control System	07	27,814	33,793		33,793	21,503		21,503	U

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202 0303153K	Defense Spectrum Organization	07	8,050	13,393		13,393	20,342		20,342	U
203 0303170K	Net-Centric Enterprise Services (NCES)	07	3,259	3,774		3,774	444		444	U
204 0303260D8Z	Defense Military Deception Program Office (DMDPO)	07	1,144	949		949				U
205 0303610K	Teleport Program	07	5,147	2,697		2,697	1,736		1,736	U
206 0304210BB	Special Applications for Contingencies	07	15,150	15,794		15,794	65,060		65,060	U
210 0305103K	Cyber Security Initiative	07	3,644	3,234		3,234	2,976		2,976	U
211 0305125D8Z	Critical Infrastructure Protection (CIP)	07	9,711	8,834		8,834				U
215 0305186D8Z	Policy R&D Programs	07	3,332	7,055		7,055	4,182		4,182	U
216 0305199D8Z	Net Centricity	07	16,005	23,950		23,950	18,130		18,130	U
218 0305208BB	Distributed Common Ground/Surface Systems	07	5,195	5,286		5,286	5,302		5,302	U
221 0305208K	Distributed Common Ground/Surface Systems	07	3,348	3,400		3,400	3,239		3,239	U
223 0305219BB	MQ-1 Predator A UAV	07	641							U
225 0305327V	Insider Threat	07		8,670		8,670	11,733		11,733	U
226 0305387D8Z	Homeland Defense Technology Transfer Program	07	2,308	2,106		2,106	2,119		2,119	U
227 0305600D8Z	International Intelligence Technology and Architectures	07	4,363							U
232 0305889G	Counterdrug Intelligence Support	07	1,004							U
234 0708011S	Industrial Preparedness	07	21,678	22,366		22,366	24,605		24,605	U

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Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
235	0708012S	Logistics Support Activities	07	5,482	1,574		1,574	1,770		1,770	U
236	0902298J	Management HQ - OJCS	07	2,926	4,409		4,409	2,978		2,978	U
237	1105219BB	MQ-9 UAV	07	13,272	9,702	5,200	14,902	18,151		18,151	U
238	1105232BB	RQ-11 UAV	07		259		259	758		758	U
239	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,446							U
240	1160403BB	Aviation Systems	07	131,119	158,733		158,733	173,934		173,934	U
241	1160405BB	Intelligence Systems Development	07	7,705	9,490		9,490	6,866		6,866	U
242	1160408BB	Operational Enhancements	07	42,492	75,253	6,000	81,253	63,008		63,008	U
243	1160431BB	Warrior Systems	07	15,692	20,573		20,573	25,342		25,342	U
244	1160432BB	Special Programs	07	7,185	20,908		20,908	3,401		3,401	U
245	1160480BB	SOF Tactical Vehicles	07	2,135	3,672		3,672	3,212		3,212	U
246	1160483BB	Maritime Systems	07	28,724	56,746		56,746	63,597		63,597	U
247	1160489BB	Global Video Surveillance Activities	07	3,304	3,788		3,788	3,933		3,933	U
248	1160490BB	Operational Enhancements Intelligence	07	13,546	15,225		15,225	10,623		10,623	U
9999	9999999999	Classified Programs		3,496,093	3,148,959	163,447	3,312,406	3,564,272	137,087	3,701,359	U
		Operational System Development		4,346,961	4,060,059	174,647	4,234,706	4,538,910	137,087	4,675,997	
Total Research, Development, Test & Eval, DW				17,317,849	17,217,225	269,647	17,486,872	18,329,861	137,087	18,466,948	



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Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Operational Test & Eval, Defense	246,091	208,711		208,711	170,558		170,558
Total Research, Development, Test & Evaluation	246,091	208,711		208,711	170,558		170,558

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Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Management Support	246,091	208,711		208,711	170,558		170,558
Total Research, Development, Test & Evaluation	246,091	208,711		208,711	170,558		170,558
Summary Recap of FYDP Programs							
Research and Development	246,091	208,711		208,711	170,558		170,558
Total Research, Development, Test & Evaluation	246,091	208,711		208,711	170,558		170,558

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Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Management Support	246,091	208,711		208,711	170,558		170,558
Total Research, Development, Test & Evaluation	246,091	208,711		208,711	170,558		170,558
Summary Recap of FYDP Programs							
Research and Development	246,091	208,711		208,711	170,558		170,558
Total Research, Development, Test & Evaluation	246,091	208,711		208,711	170,558		170,558

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Appropriation: 0460D Operational Test & Eval, Defense

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1	06051180TE	Operational Test and Evaluation	06	75,720	93,223		93,223	76,838		76,838	U
2	06051310TE	Live Fire Test and Evaluation	06	48,423	45,142		45,142	46,882		46,882	U
3	06058140TE	Operational Test Activities and Analyses	06	121,948	70,346		70,346	46,838		46,838	U
		Management Support		246,091	208,711		208,711	170,558		170,558	
Total Operational Test & Eval, Defense				246,091	208,711		208,711	170,558		170,558	

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***Budget Activity 04: Advanced Component Development & Prototypes (ACD&P)***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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***Budget Activity 05: System Development & Demonstration (SDD)***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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***Budget Activity 06: RDT&E Management Support  
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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157	06	0605502S	Small Business Innovative Research (SBIR).....	Volume 5 - 377
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166	06	0204571J	Joint Staff Analytical Support (JSAS).....	Volume 5 - 731
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***Budget Activity 07: Operational Systems Development  
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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***Budget Activity 07: Operational Systems Development  
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***Budget Activity 07: Operational Systems Development***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

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

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Contract Management Agency**

*Defense Wide Justification Book Volume 5 of 5*

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

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Department of Defense  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

09 Jan 2015

	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<u>Summary Recap of Budget Activities</u>							
System Development And Demonstration	13,812	12,530		12,530	12,542		12,542
Total Research, Development, Test & Evaluation	13,812	12,530		12,530	12,542		12,542
<u>Summary Recap of FYDP Programs</u>							
Research and Development	13,812	12,530		12,530	12,542		12,542
Total Research, Development, Test & Evaluation	13,812	12,530		12,530	12,542		12,542

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Defense-Wide  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

09 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
122	0605013BL	Information Technology Development	05	13,812	12,530		12,530	12,542		12,542	U
		System Development And Demonstration		13,812	12,530		12,530	12,542		12,542	
Total Research, Development, Test & Eval, DW				13,812	12,530		12,530	12,542		12,542	

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

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	119.959	13.812	12.530	12.542	-	12.542	13.193	13.528	13.797	13.945	Continuing	Continuing
01: <i>Systems Modifications and Development</i>	119.959	13.812	12.530	12.542	-	12.542	13.193	13.528	13.797	13.945	Continuing	Continuing

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

DCMA is positioned as a unique, independent enterprise that provides DoD with capabilities not found in the Component Services, or anywhere else within Government. In accordance with the President’s Management Agenda (PMA), DoD’s Secretary of Defense (SECDEF) “Six Areas of Focus”, and the 2014 Quadrennial Defense Review (QDR), DCMA is seeking to adapt, reshape and rebalance to prepare for the strategic challenges and opportunities we face in the years ahead. As the independent eyes and ears of the DoD, national and international partners, DCMA is continually delivering actionable acquisition insight. Adherence to Better Buying Power (BBP) 2.0 initiatives, such as controlling costs throughout the product lifecycle, incentivizing productivity, and improving tradecraft in acquisition of services, are ensuring affordability and increasing productivity. Application of improved supply chain management directives and superior price-costing strategies will eliminate requirements imposed on industry where costs outweigh benefits. The intent is to work with industry to collect data that will enable the Department to identify requirements that can be reduced or eliminated to reduce cost without adversely affecting performance. Better understanding of the commercial sector will allow the Agency to properly exploit its benefits while protecting government interests. Furthermore, we are invigorating our 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.

DCMA’s mission is to provide Contract Administration Services (CAS) to the Department of Defense (DoD) Acquisition Enterprise and its partners to ensure delivery of quality products and services to the warfighter; on time and on cost. DCMA has two primary objectives, 1) providing CAS to the military services and other authorized customers worldwide and 2) providing contingency contract support in theater. The Agency has worldwide acquisition impact through three Field Directorates (Operations, International, and Special Programs). The Agency’s Field Directorates are regionally based. The Agency’s civilian and military personnel manages over 20,063 contractors and approximately 348,000 active contracts.

DCMA is executing a strategy to modernize and consolidate all web-based applications in concert with a new Enterprise Architecture framework that adheres strictly to the Business Enterprise Architecture (BEA). Investing in newer modern technologies that utilize business process driven frameworks will greatly improve not only the quality of the DCMA contract information but allow DCMA to realize internal process efficiencies. The web-based capabilities support DCMA’s unique mission and provide cross functional capabilities that support the full range of acquisition and contract management. These capabilities help DCMA acquisition workforce access real time data; thus, enabling them to make sound contract management and business decisions. The objective behind web-based capabilities is to provide mission-effective and efficient solutions to unique sets of problems that slow down or hinder performance based contract management for DCMA and other DoD support components.

FY 2014 Actual: In FY 2014 (\$13.812) DCMA reengineered some of DCMA’s Contract Administration and Line of Service business processes and the toolsets that provide these capabilities. We streamlined business processes and consolidated toolsets that enable those capabilities to reduce operations and sustainment costs for the Department and where applicable for DCMA.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Contract Management Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>
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FY 2015-2016 Plan: In FY 2015 (\$12.530) and FY 2016 (\$12.542) DCMA is planning to capitalize on Information Technology (IT) investment innovations that leverage technology to achieve an agile enterprise architecture that equips the Agency with enhanced IT solutions for mission support operations and gives Agency decision-makers better data to compare options, provide ready analytic solutions, allocate resources, and improve processes.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	13.812	12.530	12.631	-	12.631
Current President's Budget	13.812	12.530	12.542	-	12.542
Total Adjustments	-	-	-0.089	-	-0.089
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Cost of Life Adjustment	-	-	-0.089	-	-0.089

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Contract Management Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>				<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
01: <i>Systems Modifications and Development</i>	119.959	13.812	12.530	12.542	-	12.542	13.193	13.528	13.797	13.945	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

DCMA is positioned as a unique, independent enterprise that provides DoD with capabilities not found in the Component Services, or anywhere else within Government. In accordance with the President's Management Agenda (PMA), DoD's Secretary of Defense (SECDEF) "Six Areas of Focus", and the 2014 Quadrennial Defense Review (QDR), DCMA is seeking to adapt, reshape and rebalance to prepare for the strategic challenges and opportunities we face in the years ahead. As the independent eyes and ears of the DoD, national and international partners, DCMA is continually delivering actionable acquisition insight. Adherence to Better Buying Power (BBP) 2.0 initiatives, such as controlling costs throughout the product lifecycle, incentivizing productivity, and improving tradecraft in acquisition of services, are ensuring affordability and increasing productivity. Application of improved supply chain management directives and superior price-costing strategies will eliminate requirements imposed on industry where costs outweigh benefits. The intent is to work with industry to collect data that will enable the Department to identify requirements that can be reduced or eliminated to reduce cost without adversely affecting performance. Better understanding of the commercial sector will allow the Agency to properly exploit its benefits while protecting government interests. Furthermore, we are invigorating our 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.

DCMA's mission is to provide Contract Administration Services (CAS) to the Department of Defense (DoD) Acquisition Enterprise and its partners to ensure delivery of quality products and services to the warfighter; on time and on cost. DCMA has two primary objectives, 1) providing CAS to the military services and other authorized customers worldwide and 2) providing contingency contract support in theater. The Agency has worldwide acquisition impact through three Field Directorates (Operations, International, and Special Programs). The Agency's Field Directorates are regionally based. The Agency's civilian and military personnel manages over 20,063 contractors and approximately 348,000 active contracts.

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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Software Development	13.812	12.530	12.542
<b>Articles:</b>	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Contract Management Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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**Description:** We are engaging with our Service Acquisition Executives to collaborate earlier in the acquisition process to ensure requirements are defined with well written entry and exit criteria, testing requirements defined, technical data addressed and risk addressed. DCMA participation earlier in the acquisition life cycle process provides clearer requirements for execution and sustainment, reduces life cycle costs and supports better buying power.

Software development continues to be one of the main cost drivers for cost overruns. Our in plant presence allows us to perform oversight and analysis of existing software development to include emerging critical focus areas of agile software and technology processes and leaning forward to address cybersecurity and information assurance concerns. Our independent in-plant insight into contractor processes provides a unique acquisition insight service to our DoD customers to ensure contractor compliance in program development. We see DCMA as a key role in mission assurance surveillance and the surveillance of complex software and network systems to support DoD initiatives. This is integral to better buying power.

**FY 2014 Accomplishments:**  
DCMA developed solutions for using enterprise actionable data in a mobile environment. Also, continued the migration of Integrated Workload Management System (IWMS) and DCMA 360, which provides an integrated suite of DCMA collaborative web-applications. It will be a major focus in the future as well and the development of an Enterprise Surveillance Plan tool that will analyze technical requirements and contract risk, and determine surveillance requirement.

Also, DCMA enhanced its modification and Delivery Order System and implemented the Procurement Data Standardization (PDS). PDS is a system-agnostic data standard that is intended to be adopted and implemented DoD-wide for creation, translation, processing, and sharing of procurement actions. It defines the minimum requirements for contract writing system output to improve visibility and accuracy of contract-related data. Also, it supports interoperability of DoD acquisition systems; and standardizes and streamlines the procure-to-pay business process. Further, the PDS will improve visibility of contract-related data, enabling senior DoD leadership to make better informed business decisions. And finally, this data standard will support future migration to enterprise and federal systems and processes where appropriate.

DCMA worked in concert with the Defense Procurement Acquisition Policy (DPAP) contract on building a contract file structure within IWMS by improving: Storage Taxonomy and Standardization; Contract Administration Business Processes and efficiency; and filing of electronic contract documents. DCMA has engaged DPAP and plans on utilizing the Distributed Virtual Electronic File structure as a basis for storing the electronic files. The IWMS effort will help DPAP and the Department: avoid redundancy, establish master documentation sources; automate document processing, and clarify records retention.

	FY 2014	FY 2015	FY 2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Contract Management Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2014	FY 2015	FY 2016
<p>DCMA was engaged in DPAP PDS XML to ANSI X12 Mapping. DPAP requested assistance from DCMA to test and validate a data translation capability that converts data exchanged between Contract Writing Systems (CWSs) and Mechanization Of Contract Administration Services (MOCAS) into the PDS format, further promoting the integration of contract data and interoperability of related CAS systems across the DoD enterprise. This capability will significantly reduce the number of data translation mappings DCMA currently sustains on behalf of our MOCAS trading partners, further streamlining Electronic Data Interchange (EDI) transmissions of awards and modifications into MOCAS, reducing the cost of manual processing invoices into MOCAS.</p> <p>Additionally, DCMA supported SeaPort CWS (EDI) Development and Certification. DCMA provided technical support to the Navy to develop, test and deploy EDI translation maps for SeaPort, one of several Navy CWSs that award and administer contracts for the Department. Prior to DCMA's involvement, the Seaport system was not capable or certified to transmit awards and modifications via EDI to MOCAS, causing the Navy to pay a much higher manual rate for payment of invoices. Development and certification was completed in early FY 2014, the Navy projects a savings of \$800K annually.</p> <p>Further, DCMA streamlined and improved communication processes and interfaces in the areas of Contract Administration Services improving data exchange across the DoD Acquisition Enterprise.</p> <p><b>FY 2015 Plans:</b> DCMA's primary focus for FY15 is centered on the reengineering of DCMA's Contract Administration and Line of Service business processes and the toolsets that provide the needed capabilities. Our goal is to streamline business processes and consolidate toolsets that enable those capabilities to reduce operations and sustainment costs for the Department and where applicable for DCMA. In order to accomplish this goal DCMA will need to invest in the research, purchase, and development of the new capabilities.</p> <p>In addition DCMA is capitalizing on Information Technology (IT) investment innovations that leverage technology to achieve an agile enterprise architecture that equips the Agency with enhanced IT solutions for mission support operations and gives Agency decision-makers better data to compare options, provide ready analytic solutions, allocate resources, and improve processes.</p> <p>Also, in conjunction with DPAP and Performance Assessments and Root Cause Analyses (PARCA) we plan to improve the quality of analytical and predictive information (and reduce direct impact to programs) by standardizing business processes and capabilities. The Analytic Information Management System (AIMS) effort will: standardize compliance assessment methodologies, tools, processes, and technologies; establish a guideline assessment wizard to ensure these attributes are examined in a repeatable process and return consistent results; implement business intelligence, analytics, and a single data repository to improve insight into operations performance across the Acquisition enterprise; improve detection of Earned Value Management</p>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Contract Management Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2014	FY 2015	FY 2016
<p>System (EVMS) non-compliance; and establish a consolidated view of all compliance and performance data, from the same source system.</p> <p><b>FY 2016 Plans:</b> DCMA plans to continue to capitalize on IT investment innovations that leverage technology to achieve an agile enterprise architecture that equips the Agency with enhanced IT solutions for mission support operations and gives Agency decision-makers better data to compare options, provide ready analytic solutions, allocate resources, and improve processes.</p> <p>Our goal is to continue to work with DPAP and Performance Assessments and Root Cause Analyses (PARCA) to improve the quality of analytical and predictive information (and reduce direct impact to programs) by standardizing business processes and capabilities. The Analytic Information Management System (AIMS) effort will: standardize compliance assessment methodologies, tools, processes, and technologies; establish a guideline assessment wizard to ensure these attributes are examined in a repeatable process and return consistent results; implement business intelligence, analytics, and a single data repository to improve insight into operations performance across the Acquisition enterprise; improve detection of Earned Value Management System (EVMS) non-compliance; and establish a consolidated view of all compliance and performance data, from the same source system.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	13.812	12.530	12.542

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 0701113BL: PDW: <i>Procurement Operations</i>	5.711	4.325	2.494	-	2.494	2.655	2.877	2.935	2.965	Continuing	Continuing
• 0701113 BL: O&M: <i>Procurement Operations</i>	123.107	129.404	132.981	-	132.981	141.344	147.090	149.799	146.831	Continuing	Continuing

**Remarks**

**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) 2.0 initiatives, such as controlling costs throughout the product lifecycle, incentivizing productivity, an improving tradecraft in acquisition of services. Critical among BBP initiatives are should-cost and affordability. DCMA's expertise



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Contract Management Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

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 of actionable acquisition insight, the Agency will focus on four primary goals: 1) achieve and sustain audit readiness for ourselves and our customers – audit readiness by 2017, while supporting a sustained audit readiness solution beyond 2017; 2) create an agile and flexible learning organization and culture that anticipates and responds to future customer program needs; 3) initiate and strengthen acquisition processes, with a focus on informing and contributing to DoD affordability decisions; and 4) optimize Agency mission execution to support acquisition enterprise through agile business practices.

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Contract Management Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Software Development	C/Various	TBD : TBD	119.959	13.812		12.530		12.542		-		12.542	Continuing	Continuing	N/A
<b>Subtotal</b>			119.959	13.812		12.530		12.542		-		12.542	-	-	-
<b>Project Cost Totals</b>			119.959	13.812		12.530		12.542		-		12.542	-	-	-

**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.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Contract Management Agency		<b>Date:</b> February 2015
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase XI - Development					■	■	■	■																				
Phase XI - Testing						■	■	■	■																			
Phase XI - Deployment									■																			
Phase XII - Development									■	■	■	■																
Phase XII - Testing										■	■	■	■															
Phase XII - Deployment												■																
Phase XIII - Development													■	■	■	■												
Phase XIII - Testing														■	■	■	■											
Phase XIII - Deployment																■												
Phase XIV - Development															■	■	■	■										
Phase XIV - Testing																■	■	■	■									
Phase XIV - Deployment																	■											
Phase XV - Development																		■	■	■	■							
Phase XV - Testing																			■	■	■	■						
Phase XV - Deployment																					■							
Phase XVI - Development																							■	■	■	■		
Phase XVI - Testing																								■	■	■	■	
Phase XVI - Deployment																										■		

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Contract Management Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605013BL / <i>Information Technology Development</i>	<b>Project (Number/Name)</b> 01 / <i>Systems Modifications and Development</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Phase XI - Development	1	2015	3	2015
Phase XI - Testing	2	2015	4	2015
Phase XI - Deployment	4	2015	4	2015
Phase XII - Development	1	2016	3	2016
Phase XII - Testing	2	2016	4	2016
Phase XII - Deployment	4	2016	4	2016
Phase XIII - Development	1	2017	3	2017
Phase XIII - Testing	2	2017	4	2017
Phase XIII - Deployment	4	2017	4	2017
Phase XIV - Development	1	2018	3	2018
Phase XIV - Testing	2	2018	4	2018
Phase XIV - Deployment	4	2018	4	2018
Phase XV - Development	1	2019	3	2019
Phase XV - Testing	2	2019	4	2019
Phase XV - Deployment	4	2019	4	2019
Phase XVI - Development	1	2020	3	2020
Phase XVI - Testing	2	2020	4	2020
Phase XVI - Deployment	4	2020	4	2020

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

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**DoD Human Resources Activity**

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	19,410	19,430		19,430	20,495		20,495
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495

Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

Summary Recap of Budget Activities -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Advanced Technology Development	12,116	10,692		10,692	10,771		10,771
System Development And Demonstration	386	286		286	191		191
Management Support	6,908	8,452		8,452	9,533		9,533
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495
 Summary Recap of FYDP Programs -----							
Research and Development	19,410	19,430		19,430	20,495		20,495
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495

Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Advanced Technology Development	12,116	10,692		10,692	10,771		10,771
System Development And Demonstration	386	286		286	191		191
Management Support	6,908	8,452		8,452	9,533		9,533
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495
 Summary Recap of FYDP Programs							
Research and Development	19,410	19,430		19,430	20,495		20,495
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495

Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Defense Human Resources Activity	19,410	19,430		19,430	20,495		20,495
Total Research, Development, Test & Evaluation	19,410	19,430		19,430	20,495		20,495

Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

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

Line No	Element Number	Program Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Section
61	0603769SE	Distributed Learning Advanced Technology Development	03	12,116	10,692		10,692	10,771		10,771	U
		Advanced Technology Development		12,116	10,692		10,692	10,771		10,771	
123	0605021SE	Homeland Personnel Security Initiative	05	386	286		286	191		191	U
		System Development And Demonstration		386	286		286	191		191	
161	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	6,908	8,452		8,452	9,533		9,533	U
		Management Support		6,908	8,452		8,452	9,533		9,533	
Total Research, Development, Test & Eval, DW				19,410	19,430		19,430	20,495		20,495	

Defense Human Resources Activity  
 FY 2016 President's Budget  
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 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

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

Line No	Element Number	Program Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
61	0603769SE	Distributed Learning Advanced Technology Development	03	12,116	10,692		10,692	10,771		10,771	U
		Advanced Technology Development		12,116	10,692		10,692	10,771		10,771	
123	0605021SE	Homeland Personnel Security Initiative	05	386	286		286	191		191	U
		System Development And Demonstration		386	286		286	191		191	
161	0605803SE	R&D in Support of DoD Enlistment, Testing and Evaluation	06	6,908	8,452		8,452	9,533		9,533	U
		Management Support		6,908	8,452		8,452	9,533		9,533	
Total Defense Human Resources Activity				19,410	19,430		19,430	20,495		20,495	

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 DoD Human Resources Activity **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	38.004	12.116	10.692	10.771	-	10.771	10.808	10.800	10.982	11.108	Continuing	Continuing
Project 1: <i>Advanced Distributed Learning</i>	38.004	12.116	10.692	10.771	-	10.771	10.808	10.800	10.982	11.108	Continuing	Continuing

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

Established by Executive Order, with policy oversight by the Office of the Deputy Assistant Secretary of Defense/Readiness (Training Readiness and Strategy), this program (1) Identifies, assesses, develops, and provides guidance on standards for instructional software and associated services used by Federal agencies, international partners, and contractors; (2) Conducts research on the ways these organizations can harness the power of learning technologies, such as computer-based and online courseware, training games, virtual worlds, mobile technology, intelligent tutors, and other emerging learning technologies to provide high-quality, easily accessible, adaptable, and cost-effective education and training. The ADL Initiative efforts reduce costs by reducing the need for face-to-face instruction, by increasing interoperability--which enables discovery, retrieval, and reuse of distributed learning content--and by researching and prototyping methods of distributed learning with superior motivational and learning outcomes. ADL past work resulted in the development of a Sharable Content Object Reference Model (SCORM), the current de facto internationally accepted standard and specification for distributed learning interoperability. SCORM is mandated for all Department of Defense (DoD) agencies through DoD Instruction 1322.26. ADL provides support for users of SCORM, and is also working in collaboration with the Services, other government agencies, industry, and our international partners to develop the next generation training learning architecture (TLA). The TLA is aimed at modernizing the way we learn by facilitating learning experiences that take advantage of current and emerging technologies based on new specifications and standards built upon web services. With respect to researching and prototyping new methods of distributed learning, ADL is conducting projects on intelligent tutoring and serious game for Science, Technology, Engineering, and Math (STEM), as well as projects aimed at supporting life-long learning, in the form of a personal assistant for learning (PAL). The PAL is an advanced concept research effort to provide a ubiquitous, tailored training and learning capability.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	12.116	10.692	10.771	-	10.771
Current President's Budget	12.116	10.692	10.771	-	10.771
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 DoD Human Resources Activity **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>	<b>Project (Number/Name)</b> Project 1 / <i>Advanced Distributed Learning</i>
--	--	--

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Project 1: <i>Advanced Distributed Learning</i>	38.004	12.116	10.692	10.771	-	10.771	10.808	10.800	10.982	11.108	Continuing	Continuing

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

Established by Executive Order, with policy oversight by the Office of the Deputy Assistant Secretary of Defense/Readiness (Training Readiness and Strategy), this program (1) Identifies, assesses, develops, and provides guidance on standards for instructional software and associated services used by Federal agencies, international partners, and contractors; (2) Conducts research on the ways these organizations can harness the power of learning technologies, such as computer-based and online courseware, training games, virtual worlds, mobile technology, intelligent tutors, and other emerging learning technologies to provide high-quality, easily accessible, adaptable, and cost-effective education and training. The ADL Initiative efforts reduce costs by reducing the need for face-to-face instruction, by increasing interoperability--which enables discovery, retrieval, and reuse of distributed learning content--and by researching and prototyping methods of distributed learning with superior motivational and learning outcomes. ADL past work resulted in the development of a Sharable Content Object Reference Model (SCORM), the current de facto internationally accepted standard and specification for distributed learning interoperability. SCORM is mandated for all Department of Defense (DoD) agencies through DoD Instruction 1322.26. ADL provides support for users of SCORM, and is also working in collaboration with the Services, other government agencies, industry, and our international partners to develop the next generation training learning architecture (TLA). The TLA is aimed at modernizing the way we learn by facilitating learning experiences that take advantage of current and emerging technologies based on new specifications and standards built upon web services. With respect to researching and prototyping new methods of distributed learning, ADL is conducting projects on intelligent tutoring and serious game for Science, Technology, Engineering, and Math (STEM), as well as projects aimed at supporting life-long learning, in the form of a personal assistant for learning (PAL). The PAL is an advanced concept research effort to provide a ubiquitous, tailored training and learning capability.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Advanced Distributed Learning	12.116	10.692	10.771
<b>Description:</b> Established by Executive Order, with policy oversight by the Office of the Deputy Assistant Secretary of Defense/Readiness (Training Readiness and Strategy), this program leverages emerging learning technologies to provide cost effective training and education to Service members and civilian employees of the Federal Government.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>• Published multiple research articles in leading professional journals on the best practices and effectiveness of online distributed learning;</li> <li>• Managed multiple research projects with industry and academia on solving the challenges associated with supporting lifelong learning through a 24/7, non-intrusive ubiquitous assistance, adapted to the learner's specific strengths and weaknesses, learning preferences, and level of proficiency (PAL);</li> <li>• Researched new learning technologies for possible integration into DoD educational and training programs to include the assessment and tracking of experiential training &amp; education activities;</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>	<b>Project (Number/Name)</b> Project 1 / <i>Advanced Distributed Learning</i>

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

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>• Researched structured learning content schemas and transformation technologies to modularize content, enhance semantic understanding, and improve the prospects for reuse;</li> <li>• Tested advanced instructional methods using intelligent tutors for training;</li> <li>• Instituted advanced concept research on the Next Generation (SCORM), referred to as TLA. Released version 1.0 of the Experience Application Protocol Interface (xAPI), which is the initial instantiation of the TLA's capabilities;</li> <li>• Developed tools for Service members transitional from Active Duty to civilian life through the Transition Assistance Program (TAP).</li> <li>• Participated and influenced as Co-chair of the Individual Training &amp; Education Development (IT&amp;ED), NATO Training Group to increase the standardization and reuse of training.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>• Research new learning technologies for possible integration into DoD educational and training programs to include innovative methodologies and approaches to using Social Networking for solving problems in collaborative, disparate environments;</li> <li>• Demonstrate the application of the spacing effect using current mobile technologies to reinforce learning and improve long-term retention.</li> <li>• Continue to test advanced instructional methods for intelligent tutors for training;</li> <li>• Integrate proven concepts from FY14 research into application prototypes</li> <li>• Update policies, plans, and programs to support Distributed Learning Content (DLC) programs; standardizations, identification and distribution of best practices; and guidelines for learning, training, and job performance aids that accommodate today's networked learning environment;</li> <li>• Support the White House educational initiatives as the DoD representative to the Learning Registry and Federal Game Guild;</li> <li>• Continue work with the DoD training community for the purpose of sharing DLC, standardization of common terminology, and best practices for developing and implementing efficient and effective DL technologies across DoD;</li> <li>• Collaborate with the Services, other government agencies, industry, and our international partners in development of the TLA;</li> <li>• Continue, in collaboration with Military Services and other government agencies, to better enable sharing of DLC and 3D models used for immersive learning experiences;</li> <li>• Collaborate with the other Federal Agencies to share descriptive metadata about learning resources and usage information about how those resources are being used;</li> <li>• Deliver tools that assist transitioning Service member to civilian jobs and/or educational opportunities.</li> <li>• Participate and influence as Co-chair of the IT&amp;ED, NATO Training Group to increase the standardization and reuse of training.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• Continue to influence industry and academia through publication of research articles in leading professional journals on the integration of emerging learning technologies to enhance training;</li> <li>• Deliver STEM prototypes for integration into DoD educational and training programs (e.g., with DoDEA).</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>	<b>Project (Number/Name)</b> Project 1 / <i>Advanced Distributed Learning</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>Expand research into the following areas: persistent, open independent Learning Models with reasoning capability that incorporate new methods of machine learning; common sense reasoning; cognitive modeling; artificial intelligence; the use of intelligent systems designed to increase both cognitive adaptability and emotional resiliency; and domain independent intelligent system design.</li> <li>Test lifelong learning support prototypes (PAL) with DoD learners.</li> <li>Develop the next iteration of the TLA for the next generation learning environment.</li> <li>Develop new tools that assist transitioning Service member to civilian jobs and/or educational opportunities.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	12.116	10.692	10.771

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

N/A

**Remarks**

**D. Acquisition Strategy**

Not Required.

**E. Performance Metrics**

In FY2016, 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 conferences 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 2016 DoD Human Resources Activity **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	1.082	0.386	0.286	0.191	-	0.191	0.160	0.390	0.295	0.295	Continuing	Continuing
Project 1: <i>Defense Enrollment Eligibility Reporting System</i>	1.082	0.386	0.286	0.191	-	0.191	0.160	0.390	0.295	0.295	Continuing	Continuing

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

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). HSPD-12 requires rapid electronic authentication for all Government employees, uniformed individuals and contractors. The Defense Enrollment and Eligibility System will provide Enterprise capability for the cardholder data repository, common Access interface to multiple types of Access control hardware, common Access software, the ability to control Access to multiple facilities through one authoritative data source, and provide the standards and data to form and power efficient gates. Implement Enterprise Access control data for the DoD while providing standards and reducing redundancy. RDT&E funding will be expended to develop the secure interfaces necessary to work with the Federal Bureau of Investigation (FBI) and first responders for Enterprise authentication. Many systems support different aspects of electronic authentication across the Department. RDT&E will allow for the pursuit of a potential solution that will interface disparate applications/systems. This will increase Government efficiency by rapidly verifying electronically the identity of an individual and can be used by many applications, reduce identity fraud, protect privacy by limiting information stored, and increase privacy processes to maintain Access controls, thereby facilitating identification of first responders

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	0.386	0.286	0.191	-	0.191
Current President's Budget	0.386	0.286	0.191	-	0.191
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>				<b>Project (Number/Name)</b> Project 1 / <i>Defense Enrollment Eligibility Reporting System</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 1: <i>Defense Enrollment Eligibility Reporting System</i>	1.082	0.386	0.286	0.191	-	0.191	0.160	0.390	0.295	0.295	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. The Defense Enrollment and Eligibility System will provide Enterprise capability for the cardholder data repository, common Access interface to multiple types of Access control hardware, common Access software, the ability to control Access to multiple facilities through one authoritative data source, and provide the standards and data to form and power efficient gates. Implement Enterprise Access control data for the DoD while providing standards and reducing redundancy. RDT&E funding will be expended to develop the secure interfaces necessary to work with the FBI and first responders for Enterprise authentication. Many systems support different aspects of electronic authentication across the Department. RDT&E will allow for the pursuit of a potential solution that will interface disparate applications/systems. This will increase Government efficiency by rapidly verifying electronically the identity of an individual and can be used by many applications, reduce identity fraud, protect privacy by limiting information stored, and increase privacy processes to maintain Access controls, thereby facilitating identification of first responders.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Enrollment Eligibility Reporting System/HSPD-12	0.386	0.286	0.191
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>• Provided security personnel notices on persons of interest attempting to Access facilities and increased personnel protection and policy compliance</li> <li>• Provided immediate authentication of emergency essential personnel</li> <li>• Provided an interface among disparate applications/systems across the DoD</li> </ul>			
<b>FY 2015 Plans:</b>			
Continue research and development of:			
<ul style="list-style-type: none"> <li>• Providing security personnel notices on persons of interest attempting to Access facilities and increased personnel protection and policy compliance</li> <li>• Providing immediate authentication of emergency essential personnel</li> </ul>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>	<b>Project (Number/Name)</b> Project 1 / <i>Defense Enrollment Eligibility Reporting System</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>• Enhance security and increases Government efficiency, it also reduces identify fraud, and protect personal privacy</li> </ul> <p><b><i>FY 2016 Plans:</i></b></p> <ul style="list-style-type: none"> <li>• Mechanisms for the interoperability of federal Personal Identification Verification-Interoperable (PIV-I) credentials to facilitate electronic verification and facility access determinations</li> <li>• Will continue to support integration of authorization external data sources into the electronic access determination process to improve total assurance and fitness of requesting individual</li> <li>• Risk model for the incorporation of mechanisms to support PIV-I credentials for electronic verification and access</li> <li>• Will establish mandatory, Government-wide standard for secure and reliable forms of identification issued by Federal agencies to their employees and contractors.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.386	0.286	0.191

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

N/A

**Remarks**

**D. Acquisition Strategy**

Existing contract vehicles in place/GSA for COTS.

**E. Performance Metrics**

None

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 DoD Human Resources Activity** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / Homeland Security <i>Presidential Directive (HSPD-12) Initiative</i>	<b>Project (Number/Name)</b> Project 1 / Defense Enrollment Eligibility <i>Reporting System</i>
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Homeland Personnel Security Directive (HSPD-12) Initiative	C/IDIQ	Gulf Coast Enterprise : Pensacola, FL	1.082	0.386	Dec 2013	0.286	Dec 2014	0.191	Dec 2015	-		0.191	Continuing	Continuing	Continuing
<b>Subtotal</b>			1.082	0.386		0.286		0.191		-		0.191	-	-	-

	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			1.082	0.386	0.286	0.191	-	0.191	-

Remarks

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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 DoD Human Resources Activity** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>	<b>Project (Number/Name)</b> Project 1 / <i>Defense Enrollment Eligibility Reporting System</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Defense Enrollment Eligibility Reporting System	
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605021SE / <i>Homeland Security Presidential Directive (HSPD-12) Initiative</i>	<b>Project (Number/Name)</b> Project 1 / <i>Defense Enrollment Eligibility Reporting System</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Defense Enrollment Eligibility Reporting System	1	2016	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 DoD Human Resources Activity **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	25.803	6.908	8.452	9.533	-	9.533	7.240	5.341	7.613	7.613	Continuing	Continuing
Project 1: <i>DoD Enlistment Processing &amp; Testing</i>	5.166	0.376	1.945	2.181	-	2.181	1.975	1.833	1.845	1.845	Continuing	Continuing
Project 2: <i>Human Resources Automation Enhancements</i>	16.939	2.832	4.976	5.179	-	5.179	4.271	2.641	4.469	4.469	Continuing	Continuing
Project 3: <i>NEO Tracking System</i>	0.761	0.761	0.531	0.616	-	0.616	-	-	-	-	Continuing	Continuing
Project 4: <i>Synchronized Pre-deployment &amp; Operational Tracker Enterprise Suite</i>	2.937	2.939	1.000	1.057	-	1.057	0.994	0.867	1.299	1.299	Continuing	Continuing
Project 5: <i>ESGR Awards and Activity Tracking &amp; Reporting (AATR) Tool</i>	0.000	-	-	0.500	-	0.500	-	-	-	-	Continuing	Continuing

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

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)). This PE includes application of R&D to expedite prototype development and mission support efforts to sustain and/or modernize operations required for general RDT&E.

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.

Project 2: Human Resources Automation Enhancements. DCPDS 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

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 DoD Human Resources Activity	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
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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. DCPDS completed its upgrade to the Hewlett Packard Blade architecture for all database servers in 2014. The current focus of DCPDS is the expansion of these efficiencies through the consolidation of DCPDS operations to a single data center, where DCPDS enterprise operations and all DoD customer regional operations will be located at the Lockheed Martin Denver Data Center.. (Army and Air Force relocated in FY14 and focus has now turned to .)

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.

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.

Project 4: Synchronized Pre-deployment and Operational Tracker Enterprise Suite (SPOT-ES). 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.

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

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 DoD Human Resources Activity	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>
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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.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>FY 2016 Base</u></b>	<b><u>FY 2016 OCO</u></b>	<b><u>FY 2016 Total</u></b>
Previous President's Budget	6.908	8.452	9.533	-	9.533
Current President's Budget	6.908	8.452	9.533	-	9.533
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> Project 1 / DoD Enlistment Processing & Testing			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 1: DoD Enlistment Processing & Testing	5.166	0.376	1.945	2.181	-	2.181	1.975	1.833	1.845	1.845	Continuing	Continuing
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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> DoD Enlistment Processing & Testing	0.376	1.945	2.181
<b>Description:</b> DoD Enlistment Processing & Testing			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>Finalized and implemented new procedures for test development of ASVAB Items</li> <li>Researched on revisions to ASVAB content DoD Student Testing Program (STP)</li> <li>Evaluated the use of internet-based CAT-ASVAB in the CEP</li> </ul>			
<b>FY 2015 Plans:</b>			
<ul style="list-style-type: none"> <li>Continue to research on revisions to ASVAB content</li> <li>Evaluate methods to convert all STP to Computer Adaptive Test (CAT)</li> <li>Continue to evaluate the use of internet-based CAT-ASVAB in the Career Exploration Program (CEP)</li> <li>Continue to reduce the frequency and impact of ASVAB test compromise, ensuring applicants are qualified to perform the military duties and responsibilities</li> </ul>			
<b>FY 2016 Plans:</b>			
<ul style="list-style-type: none"> <li>Continue the research effort on new measures/new content that could potentially be added to the ASVAB</li> <li>Continue development of new ASVAB test items in accordance with revised procedures</li> <li>Will greatly reduce the frequency and impact of ASVAB test compromise, ensuring that military applicants are qualified to be in the military and capable of performing their military jobs.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.376	1.945	2.181



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>	<b>Project (Number/Name)</b> Project 1 / <i>DoD Enlistment Processing &amp; Testing</i>

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

N/A

**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.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> Project 2 / Human Resources Automation Enhancements			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 2: Human Resources Automation Enhancements	16.939	2.832	4.976	5.179	-	5.179	4.271	2.641	4.469	4.469	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Civilian HR automation enhancements planned for FY 2015 and FY 2016 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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Human Resources Automation Enhancements	2.832	4.976	5.179
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>• Completed consolidation of all Defense Agency and Military Service DCPDS regional computing operations into a single data center</li> <li>• Continued enhancement of information assurance infrastructure for mandated DoD requirements for zone architecture and move to Risk Management Framework</li> <li>• Planned and executed enhancements to support legislative mandates/requirements</li> <li>• Implemented new employee/manager portal for civilian personnel information</li> <li>• Planned performance management system integration</li> <li>• Completed next phase of DoD Demilitarized Zone (DMZ) extension to comply with DoD mandates for DMZ extension requirements for all systems</li> <li>• Supported HR Line of Business (LoB) initiatives, including modification of interfaces IAW OPM mandates</li> <li>• Developed DCPDS interfaces to support DoD requirements and external systems</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> Project 2 / Human Resources Automation Enhancements
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>• Upgraded communication circuits to support expansion of DCPDS regional operations, test/development site and DR site</li> <li>• Leveraged improved purchasing power for hardware and software maintenance purchases</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>• Implement initial cloud computing, data warehouse improvements and continued expansion of web services (15)</li> <li>• Enhance information assurance requirements, including DMZ extension mandates (15)</li> <li>• Consolidate DCPAS supported applications to enterprise data center (15)</li> <li>• 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)</li> <li>• Plan modernization and integration of legacy applications (15)</li> <li>• Implement mobility access to DCPDS (Employment Verification and Leave Balance) within the Joint Information Environment (JIE) (15)</li> <li>• Enhance warm site disaster recovery capabilities (15)</li> <li>• Develop enhancements to comply with HR legislative and DoD regulatory requirements (Ongoing)</li> <li>• Support required changes for HR LoB interfaces and other OPM/OMB mandates (Ongoing)</li> <li>• Implement continuous auditing and monitoring to improve compliance with FIAR (Ongoing)</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• Implement new capabilities, including employee/manager initiated actions, on portal (16)</li> <li>• Improve infrastructure virtualization to increase performance at improved cost (16)</li> <li>• Implement SSN Reduction in the DCPDS Mass Action Process (16)</li> <li>• Implement integration of supported applications (16)</li> <li>• Upgrade system platform to latest commercial version (16)</li> <li>• Develop enhancements to comply with HR legislative and DoD regulatory requirements (Ongoing)</li> <li>• Support required changes for HR LoB interfaces and other OPM/OMB mandates (Ongoing)</li> <li>• Implement continuous auditing and monitoring to improve compliance with FIAR (Ongoing)</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	2.832	4.976	5.179

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

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>	<b>Project (Number/Name)</b> Project 2 / <i>Human Resources Automation Enhancements</i>

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> Project 3 / NEO Tracking System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 3: NEO Tracking System	0.761	0.761	0.531	0.616	-	0.616	-	-	-	-	Continuing	Continuing
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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> NEO Tracking System (NTS)	0.761	0.531	0.616
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>• Converted the NTS program to a mobile application package that can be run on tablets and smart phones</li> <li>• Streamlined the distribution of NTS images, reducing not only the costs associated with the creation of an image, but also the time associated with receiving the image in the field</li> </ul>			
<b>FY 2015 Plans:</b>			
<ul style="list-style-type: none"> <li>• Continue to upgrade system software and hardware drivers for Windows 7, 64-bit compatibility</li> <li>• Continue with hardware implementation</li> <li>• Provide automate distribution of system updates</li> <li>• Provide immediate authentication of emergency essential personnel</li> <li>• Provide web services to support development of Enterprise organizations attribute service for DoD which supports the Secure Data Access.</li> </ul>			
<b>FY 2016 Plans:</b>			
<ul style="list-style-type: none"> <li>• Will continue to upgrade hardware implementations</li> <li>• Will continue with automation distribution of system updates</li> <li>• 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.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.761	0.531	0.616

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / <i>R&amp;D in Support of DOD Enlistment, Testing and Evaluation</i>	<b>Project (Number/Name)</b> Project 3 / <i>NEO Tracking System</i>

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

N/A

**Remarks**

**D. Acquisition Strategy**

Existing contract vehicles in place/GSA for COTS.

**E. Performance Metrics**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation				<b>Project (Number/Name)</b> Project 4 / Synchronized Pre-deployment & Operational Tracker Enterprise Suite			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 4: <i>Synchronized Pre-deployment &amp; Operational Tracker Enterprise Suite</i>	2.937	2.939	1.000	1.057	-	1.057	0.994	0.867	1.299	1.299	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

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 OMB-directed quarterly census of all contractors supporting contingency operations.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> The Synchronized Pre-deployment and Operational Tracker	2.939	1.000	1.057
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>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 around the world.</li> <li>Provided the only DoS, DoD, and USAID sanctioned Letter of Authorization (LOA) which provides the Government Furnished Services to contractor personnel.</li> <li>Provided the information on contractor personnel supporting Iraq and Afghanistan to the Office of the Secretary of Defense for reports to Congress.</li> <li>Provided the number of contractor personnel and contract capability to Combatant Commands for operational planning purposes and to aid in their decision making processes.</li> </ul>			
<b>FY 2015 Plans:</b>			
<ul style="list-style-type: none"> <li>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 around the world.</li> <li>Continue to provide the only DoS, DoD, and USAID sanctioned Letter of Authorization (LOA) which provides the Government Furnished Services to contractor personnel.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 DoD Human Resources Activity		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> Project 4 / Synchronized Pre-deployment & Operational Tracker Enterprise Suite

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>• Provide the information on contractor personnel supporting Iraq and Afghanistan to the Office of the Secretary of Defense for reports to Congress.</li> <li>• Provide the number of contractor personnel and contract capability to Combatant Commands for operational planning purposes and to aid in their decision making processes.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• 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 around the world</li> <li>• Provides a common operational picture for Commanders, enhancing the analytical tools to accurately plan for the quantity of contracted support required for future contingency operations.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	2.939	1.000	1.057

**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-2A, RDT&E Project Justification:** PB 2016 DoD Human Resources Activity **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605803SE / R&D in Support of DOD Enlistment, Testing and Evaluation	<b>Project (Number/Name)</b> Project 5 / ESGR Awards and Activity Tracking & Reporting (AATR) Tool
--	---	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Project 5: <i>ESGR Awards and Activity Tracking &amp; Reporting (AATR) Tool</i>	-	-	-	0.500	-	0.500	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> ESGR Awards and Activity Tracking and Reporting (AATR) Tool	-	-	0.500
<b>FY 2016 Plans:</b> • Design and build Awards and Activity Tracking and Reporting (AATR)			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	0.500

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Information Systems Agency**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense Information Systems Agency • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

Appropriation -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	237,192	215,982		215,982	219,155		219,155
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155

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Department of Defense  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

09 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-----							
System Development And Demonstration	40,529	39,670		39,670	38,582		38,582
Operational System Development	196,663	176,312		176,312	180,573		180,573
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155
Summary Recap of FYDP Programs							
-----							
General Purpose Forces	67,027	63,558		63,558	64,921		64,921
Intelligence and Communications	141,150	126,995		126,995	130,810		130,810
Research and Development	29,015	25,429		25,429	23,424		23,424
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155



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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

Summary Recap of Budget Activities -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
System Development And Demonstration	40,529	39,670		39,670	38,582		38,582
Operational System Development	196,663	176,312		176,312	180,573		180,573
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155
Summary Recap of FYDP Programs -----							
General Purpose Forces	67,027	63,558		63,558	64,921		64,921
Intelligence and Communications	141,150	126,995		126,995	130,810		130,810
Research and Development	29,015	25,429		25,429	23,424		23,424
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Defense Information Systems Agency	237,192	215,982		215,982	219,155		219,155
Total Research, Development, Test & Evaluation	237,192	215,982		215,982	219,155		219,155

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	29,015	25,429		25,429	23,424		23,424	U
131	0303141K	Global Combat Support System	05	11,514	14,241		14,241	15,158		15,158	U
		System Development And Demonstration		40,529	39,670		39,670	38,582		38,582	
187	0208045K	C4I Interoperability	07	67,027	63,558		63,558	64,921		64,921	U
189	0301144K	Joint/Allied Coalition Information Sharing	07	6,524	3,931		3,931	3,645		3,645	U
193	0302016K	National Military Command System-Wide Support	07	501	924		924	963		963	U
194	0302019K	Defense Info Infrastructure Engineering and Integration	07	11,031	9,612		9,612	10,186		10,186	U
195	0303126K	Long-Haul Communications - DCS	07	45,536	25,325		25,325	36,883		36,883	U
196	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	14,782	12,671		12,671	13,735		13,735	U
201	0303150K	Global Command and Control System	07	27,814	33,793		33,793	21,503		21,503	U
202	0303153K	Defense Spectrum Organization	07	8,050	13,393		13,393	20,342		20,342	U
203	0303170K	Net-Centric Enterprise Services (NCES)	07	3,259	3,774		3,774	444		444	U
205	0303610K	Teleport Program	07	5,147	2,697		2,697	1,736		1,736	U
210	0305103K	Cyber Security Initiative	07	3,644	3,234		3,234	2,976		2,976	U
221	0305208K	Distributed Common Ground/Surface Systems	07	3,348	3,400		3,400	3,239		3,239	U
		Operational System Development		196,663	176,312		176,312	180,573		180,573	
Total Research, Development, Test & Eval, DW				237,192	215,982		215,982	219,155		219,155	

R-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 9, 2015 at 13:47:34

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Defense Information Systems Agency  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
119	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	29,015	25,429		25,429	23,424		23,424	U
131	0303141K	Global Combat Support System	05	11,514	14,241		14,241	15,158		15,158	U
		System Development And Demonstration		40,529	39,670		39,670	38,582		38,582	
187	0208045K	C4I Interoperability	07	67,027	63,558		63,558	64,921		64,921	U
189	0301144K	Joint/Allied Coalition Information Sharing	07	6,524	3,931		3,931	3,645		3,645	U
193	0302016K	National Military Command System-Wide Support	07	501	924		924	963		963	U
194	0302019K	Defense Info Infrastructure Engineering and Integration	07	11,031	9,612		9,612	10,186		10,186	U
195	0303126K	Long-Haul Communications - DCS	07	45,536	25,325		25,325	36,883		36,883	U
196	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	14,782	12,671		12,671	13,735		13,735	U
201	0303150K	Global Command and Control System	07	27,814	33,793		33,793	21,503		21,503	U
202	0303153K	Defense Spectrum Organization	07	8,050	13,393		13,393	20,342		20,342	U
203	0303170K	Net-Centric Enterprise Services (NCES)	07	3,259	3,774		3,774	444		444	U
205	0303610K	Teleport Program	07	5,147	2,697		2,697	1,736		1,736	U
210	0305103K	Cyber Security Initiative	07	3,644	3,234		3,234	2,976		2,976	U
221	0305208K	Distributed Common Ground/Surface Systems	07	3,348	3,400		3,400	3,239		3,239	U
		Operational System Development		196,663	176,312		176,312	180,573		180,573	
Total Defense Information Systems Agency				237,192	215,982		215,982	219,155		219,155	

R-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 9, 2015 at 13:47:34

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***Budget Activity 07: Operational Systems Development  
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / Advanced IT Services Joint Program Office (AITS-JPO)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	126.974	29.015	25.429	23.424	-	23.424	24.747	25.570	26.679	26.973	Continuing	Continuing
T26: Leading Edge Pilot Information Technology	126.974	29.015	25.429	23.424	-	23.424	24.747	25.570	26.679	26.973	Continuing	Continuing

**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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	29.085	25.459	25.954	-	25.954
Current President's Budget	29.015	25.429	23.424	-	23.424
Total Adjustments	-0.070	-0.030	-2.530	-	-2.530
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.070	-0.030	-2.530	-	-2.530

**Change Summary Explanation**

The decrease of -\$0.070 in FY 2014 is due to a reduction in the number of OSD approved JCTDs.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 5: <i>System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	

The decrease of -\$0.030 in FY 2015 is due to a reduction in the number of OSD approved JCTDs.

The decrease of -\$2.530 in FY 2016 is due to a change in DoD policy where the JCTD process will be used to satisfy seven OSD identified technology problem areas. Due to this policy change, there is a reduction in the number of long-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 (-\$2.000). The remaining -\$0.530 is due to support DISA equities such as a development environment that can be leveraged to minimize the initial capital required to establish infrastructures to performing mobile application development and software experimentation. With modernization of infrastructures through virtualization, there are IT efficiencies that can be realized to perform tasks simpler, faster, and more repeatable. In addition, OCTO will look for partnerships with other interested parties to fund projects together thereby reducing the funding required to implement projects.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>				<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T26: <i>Leading Edge Pilot Information Technology</i>	126.974	29.015	25.429	23.424	-	23.424	24.747	25.570	26.679	26.973	Continuing	Continuing
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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Command and Control (C2) and Combat Support (CS)	2.173	3.415	3.024
<b>Description:</b> Command and Control (C2) and Combat Support (CS)			
<b>FY 2014 Accomplishments:</b> Continued to support COCOMs by conducting technology and operational military utility assessments with the user community in order to identify and refine requirements and corresponding implementation technologies and providing provided shoulder-to-shoulder engineering. Worked with the COCOM's on understanding the technical web enabling technologies for use in their client and mobile mission net-centric web applications. Continued to perform technology assessments and pilots, in the areas articulated in the Defense Information Systems Agency (DISA) Chief Technical Officer (CTO) Technology Watchlist (derived			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>from COCOM Science and Technology Integrated Priorities List (STIPLs)) developed each fiscal year, to support identifying corresponding implementations for improving C2 operational mission effectiveness. Completed JCTDs through demonstrations and operational assessments, and then transitioned to a program executive office for sustainment.</p> <p><b>FY 2015 Plans:</b> Will provide 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. Will participate 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 are identified and planned. Will provide engineering expertise to enable and institutionalize common standards, interfaces, and architectures for use by Department of Defense (DoD) programs, initiatives and efforts.</p> <p>The increase of +\$1.242 from FY 2014 to FY 2015 is the result of increased requirements in the development of prototypes and solutions for interoperable solutions and shared enterprise services for the Military Services, Combatant Commands, and DoD.</p> <p><b>FY 2016 Plans:</b> 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 Lines of Operation.</p> <p>The decrease of -\$0.391 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.</p>				
<p><b>Title:</b> Information Sharing (IS)</p> <p><b>FY 2014 Accomplishments:</b> Continued to investigate and pilot mobile cloud computing and data technologies in order to deliver a world-wide enterprise joint information sharing environment. This design and implementation supported the physical IT infrastructure and delivered agile data sharing services for DoD mission application needs. Enterprise Architecture and piloted reference implementation provided guidance for future implementations allowing users to "plug-in" using standard interfaces to the joint information sharing environment. Additionally, CTO piloted technologies for correlating disparate information assets in order to more effectively</p>		4.983	4.153	3.677

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>transform data into C2 situational knowledge. Evaluated and piloted various data tagging approaches for that enabling enabled information sharing at a more granular level.</p> <p><b>FY 2015 Plans:</b> Will provide engineering support to modify open source applications in support of DoD requirements, and expose COCOM data to the enterprise. Will continue exploring, designing and taking advantage of gains achieved in widget and application development and in providing the warfighter an application store. Engineering and Information Assurance capabilities will be provided to DISA on Cloud Broker and DISA's computing service offerings. Will provide 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.</p> <p>The decrease of -\$0.830 from FY 2014 to FY 2015 is due to reduced engagement with the COCOMs and Services.</p> <p><b>FY 2016 Plans:</b> 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.</p> <p>The decrease of -\$0.476 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.</p>				
<p><b>Title:</b> Network Infrastructure (NI)</p> <p><b>Description:</b> Network Infrastructure (NI)</p> <p><b>FY 2014 Accomplishments:</b> Expanded and piloted Attribute Based Access Control (ABAC) capabilities in order to develop business practices, identify first responder and coalition attributes and access control policies. These capabilities also delivered reference implementations for identifying management and information sharing among DoD, first responders, and coalition partners. Supported the Office of the</p>		2.319	1.760	1.316

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Secretary of Defense (OSD) data center consolidation initiative by investigating and piloting technologies that will improve storage, cloud brokering, and provisioning computing infrastructure resources.</p> <p><b>FY 2015 Plans:</b> Will 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. Will provide 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. Will provide the capacity to perform technology assessments, 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. Will continue 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 serves as a primary risk reduction approach to meet emerging capability gaps.</p> <p>The decrease of -\$0.559 from FY 2014 to FY 2015 is a result of reduced engineering support in developing the ability to rapidly identify personnel communities of interest supporting evolving situations and national events and to quickly establish collaboration among the subject matter experts that will help DoD shape and influence events.</p> <p><b>FY 2016 Plans:</b> 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.</p> <p>The decrease of -\$0.444 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.</p>				
<b>Title:</b> Network Operations (NetOps)		1.049	1.067	0.639
<b>FY 2014 Accomplishments:</b>				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Oversaw the operational status of the DODIN (formerly Global Information Grid (GIG)) in order to determine availability and ensured mission execution readiness. Investigated mobile and cloud Enterprise Service Management (ESM) technologies to determine and ensure availability agreements are honored. Lead the integration of ESM technologies with automated provisioning and allocation of resources to ensure the joint information environment is always operable.</p> <p><b>FY 2015 Plans:</b> Will provide engineering support for the development of web applications supporting high priority COCOM requirements for dynamic country-to-country data exchanges. Will provide engineering support to DISA in the development of a storefront for widgets and web applications. Will provide engineering and Information Assurance capability supporting DoD CIO's Cloud Broker and enterprise computing services. Will conduct exploration of emerging technologies that support Web 3.0 environments and the improvement of command, control, communications, collaboration and socialization among DoD seniors, warfighters, and across the warfighting, intelligence, and business domains.</p> <p>The increase of +\$0.018 from FY 2014 to FY 2015 is due to increased engineering support and continued development of analytical tools for cyber events.</p> <p><b>FY 2016 Plans:</b> The decrease of -\$0.428 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.</p>				
<p><b>Title:</b> Program Management Support</p> <p><b>FY 2014 Accomplishments:</b> Continued core program management support to manage financial accounts, oversee information assurance activities, assist in contract administration, and provide 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.</p> <p><b>FY 2015 Plans:</b> Will continue core program management support to manage financial accounts, oversee information assurance activities, assist in contract administration, and provide technical assistance. Will continue to provide asset management, quality assurance and business line improvement, information assurance oversight, technical oversight and assistance, web support and application hosting.</p>		18.491	15.034	14.768

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p>The decrease of -\$3.457 from FY 2014 to FY 2015 is the result of a reduction of seven Full-Time-Equivalents, reduced contract support for Information Assurance and Technical Assistance to COCOMs and Services.</p> <p><b>FY 2016 Plans:</b> CTO will continue to provide core program management support and a variety of engineering, technical innovation, information services, information assurance, and integration engineering.</p> <p>The decrease of -\$0.266 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	29.015	25.429	23.424

**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



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency	<b>Date:</b> February 2015
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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 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.

FY14 Actual: 3 Approved ECTDs

FY15 Target: 4 Approved ECTDs

FY16 Target: 5 Approved ECTDs/Rapid Fielding initiatives and 3 pending approval

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.

FY14 Actual: 97 Users Requested and 59 Actual Users

FY15 Target: 100 Additional Users - 25 each quarter

FY16 Target: 20 Additional Users - 5 each quarter

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	MIPR	SPAWAR SSC : Charleston, SC	16.570	-		-		-		-		-	Continuing	Continuing	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	-		-		-		-		-	Continuing	Continuing	6.388
Product Development 4	C/CPFF	SOLERS : Arlington, VA	9.001	1.858	Apr 2014	1.400	Jun 2015	1.072	Jun 2016	-		1.072	Continuing	Continuing	Continuing
Product Development 5	SS/FPEPA	LLH & Associates : Toano, VA	2.568	-		1.500	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	-		-		1.740	Aug 2016	-		1.740	Continuing	Continuing	Continuing
Product Development 11	C/CPFF	CORONET : Philadelphia, PA	-	0.300	Apr 2014	-		0.318	Nov 2015	-		0.318	Continuing	Continuing	Continuing
Product Development 12	C/FFP	MD SAVE : Philadelphia, PA	-	0.530	Jul 2014	-		0.824	Jul 2016	-		0.824	Continuing	Continuing	Continuing
<b>Subtotal</b>			57.470	2.688		2.900		3.954		-		3.954	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support 1	C/FFP	RAYTHEON : Falls Church, VA	7.253	0.824	Oct 2013	-		-		-		-	Continuing	Continuing	9.425
Support 2	C/FFP	TWM : Falls Church, VA	3.125	0.429	Apr 2014	1.500	Dec 2014	-		-		-	Continuing	Continuing	5.856
Support 3	C/FFP	Various : Various	1.692	2.954	Jan 2014	-		-		-		-	Continuing	Continuing	1.692
Support 4	C/FP	Science & Technology Associates, Inc. : Arlington, VA	2.160	0.525	Jan 2013	-		-		-		-	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	0.850	0.800	Jan 2014	0.750	Feb 2015	0.600	Nov 2015	-		0.600	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	-	-		1.935	Apr 2015	-		-		-	Continuing	Continuing	1.935
Support 10	SS/FFP	XLM Repository : Various	-	-		-		0.379	Aug 2016	-		0.379	Continuing	Continuing	Continuing
Support 11	C/FFP	Tapestry Technologies : Chambersburg, PA	-	0.890	Apr 2014	0.650	Apr 2015	-		-		-	Continuing	Continuing	Continuing
Support 12	C/CPFF	TIE NEMS: B&D Consulting : Hagerstown, MD	-	2.000	Jul 2014	1.449	Jul 2015	1.545	Jul 2016	-		1.545	Continuing	Continuing	Continuing
Support 13	C/FFP	TBD : TBD	-	-		-		0.495	Oct 2015	-		0.495	Continuing	Continuing	Continuing
Support 14	C/FFP	ARDEC: Science and Technology Associates : Arlington, VA	0.000	-		-		-		-		-	-	-	-
Support 15	C/FFP	IT Consulting Partners, Limited	0.000	0.976	Jan 2014	1.003	Jan 2015	1.019	Jan 2016	-		1.019	Continuing	Continuing	Continuing

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
		Liability Company : Jackson, WY													
<b>Subtotal</b>			31.620	9.398		7.287		4.038		-		4.038	-	-	-

<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Management Services 1	FFRDC	MITRE : McLean, VA	2.509	1.627	Oct 2013	1.600	Oct 2014	1.200	Oct 2015	-		1.200	Continuing	Continuing	Continuing
Management Services 2	C/CPFF	Keylogic : Morgantown, WV	2.901	1.446	Apr 2014	-		-		-		-	Continuing	Continuing	4.121
Program Management Civilian Pay	Various	Various : Various	32.165	12.603	Oct 2013	12.372	Oct 2014	12.521		-		12.521	Continuing	Continuing	Continuing
Management Services 3	Various	Various : Various	0.309	-		-		0.416	Nov 2015	-		0.416	Continuing	Continuing	Continuing
Management Services	C/FFP	PMPC : Various	-	1.253	Sep 2014	1.270	Sep 2015	1.295	Sep 2016	-		1.295	Continuing	Continuing	Continuing
<b>Subtotal</b>			37.884	16.929		15.242		15.432		-		15.432	-	-	-

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	126.974	29.015	25.429	23.424	-	23.424	-	-	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

**Command and Control (C2) and Combat Support (CS)**

C2/CS FY 2013 JCTD - POP, IOC, MUA	
C2/CS FY 2014 JCTD - POP, IOC	
C2/CS FY 2015 JCTD - POP	

**Information Sharing (IS)**

IS FY 2014 JCTD - POP, IOC	
IS FY 2015 JCTD - POP	
Technology Assessment and Piloting from Technology Watchlist	

**Network Infrastructure (NI)**

Intelligence Community Content Staging JCTD POP, IOC	
Intelligence Community Services JCTD POP	

**Network Operations (NetOps)**

GIG Net Defense POP, IOC, MUA, Transition	
GIG Services POP	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604764K / <i>Advanced IT Services Joint Program Office (AITS-JPO)</i>	<b>Project (Number/Name)</b> T26 / <i>Leading Edge Pilot Information Technology</i>
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Schedule Details

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

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	219.157	11.514	14.241	15.158	-	15.158	15.301	13.443	13.448	13.569	Continuing	Continuing
CS01: <i>Global Combat Support System</i>	219.157	11.514	14.241	15.158	-	15.158	15.301	13.443	13.448	13.569	Continuing	Continuing

**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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	12.083	14.241	15.242	-	15.242
Current President's Budget	11.514	14.241	15.158	-	15.158
Total Adjustments	-0.569	-	-0.084	-	-0.084
• Congressional General Reductions	-	-	-	-	-
• Congressional Directed Reductions	-	-	-	-	-
• Congressional Rescissions	-	-	-	-	-
• Congressional Adds	-	-	-	-	-
• Congressional Directed Transfers	-	-	-	-	-
• Reprogrammings	-	-	-	-	-
• SBIR/STTR Transfer	-	-	-	-	-
• Other Adjustments	-0.569	-	-0.084	-	-0.084

**Change Summary Explanation**

The FY 2014 decrease of  $-\$0.569$  is the result of funding being realigned within the DISA Command and Control portfolio for higher C2 developmental requirements.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	

The FY 2016 decrease of -\$0.084 is a result of a reduction in the overall pace and scope of GCSS-J development efforts to meet Joint Staff logistics operational needs.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>				<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CS01: <i>Global Combat Support System</i>	219.157	11.514	14.241	15.158	-	15.158	15.301	13.443	13.448	13.569	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Global Combat Support System-Joint	11.514	14.241	15.158
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b> GCSS-J continued to meet the functional priorities of the joint logistics community, as documented by Combatant Command 129 Requirements Document which were approved and prioritized by Joint Staff (J4). The Program leveraged the Joint Command and Control Common User Interface (JC2CUI) Ozone Widget Framework (OWF) to develop widgets to support Combatant Commands. The focus was 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.			
<b>FY 2015 Plans:</b> GCSS-J will continue to meet the functional priorities of the joint logistics community, as documented by Combatant Command 129 Requirements Document which are approved and prioritized by Joint Staff (J4). The Program will continue to leverage the			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>

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

	FY 2014	FY 2015	FY 2016
JC2CUI OWF to develop widgets to support Combatant Commands. The focus will be 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 +\$2.727 from FY 2014 to FY 2015 will allow the program to satisfy additional Joint Staff operational needs in response to on-going real-world events.			
<b><i>FY 2016 Plans:</i></b> 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 priorities of the joint logistics community, as documented by Combatant Command 129 Requirements Document which are approved and prioritized by Joint Staff (J4). Will continue to leverage the JC2CUI OWF to develop widgets 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 +\$0.917 from FY 2015 to FY 2016 is due to the requirement for a LogCOP to support the needs of the logisticians as they plan, execute, control, and monitor assets in an increasingly complex global environment.			
<b>Accomplishments/Planned Programs Subtotals</b>	11.514	14.241	15.158

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/PE	14.744	13.412	14.449	-	14.449	13.624	13.848	13.840	-	Continuing	Continuing
0303141K: O&M, DW											
• Procurement, DW/PE	-	-	-	-	-	-	-	-	-	Continuing	Continuing
0303141K: Procurement, DW											

**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

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Information Systems Agency Date: February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>
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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.

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 2014 (Actuals) The KPPs, found in the GCSS-J Acquisition Program Baseline, defined baseline measures for the effectiveness of mission performance; the threshold was 95%. Data was gathered from the First Look Site during development and from surveys once the capability was deployed. FY14 Target: 95%; Metric was met.

- FY 2015 (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. FY15 Target: 95%

- 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%

2. Customer Results and Customer Satisfaction

- FY 2014 (Actuals) Help Desk KPIs defined the baseline measure evaluating customer satisfaction and provided a service desk assessment; KPI threshold was 80%. Data was gathered from the strategic server site, DECC-Montgomery, and from user surveys. FY14 Target: 80%; Metric was met.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>
<p>- FY 2015 (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. FY15 Target: 80%</p> <p>- 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%</p> <p>3. Processes and Activities and Program Monitoring</p> <p>- FY 2014 (Actuals) Baseline Measure - Baseline Measure - Deployed Increment 7, v7.4.1 in 2nd Quarter 2014 and v7.4.2 in 4th Quarter 2014.. Metric was met.</p> <p>- FY 2015 (Estimate) Baseline Measure – To deploy Increment 8, v8.0 in 3rd Quarter 2015.</p> <p>- FY 2016 (Estimate) Baseline Measure – To deploy Increment 8, v8.1 in 2nd Quarter 2016.</p> <p>4. Technology and System Development</p> <p>- FY 2014 (Actuals) Baseline Measure was the ability to effectively provide end-to-end technical exchange with all external data providers at a 95% effectiveness level. System Administrators at the DECCs gathered data from system logs to validate effectiveness. FY14 Target: 95%; Target was met.</p> <p>- FY 2015 (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. FY15 Target: 95%</p> <p>- 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%</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	C/T&M	Enterworks : Sterling, VA	8.745	-		-		-		-		-	-	8.745	8.745
Product Development 2	C/T&M	WFI (DSI) : Manassas, VA	4.125	-		-		-		-		-	-	4.125	4.125
Product Development 3	C/CPAF	NGIT : Herndon, VA	107.213	8.661	Mar 2014	11.975	Mar 2015	13.579	Mar 2016	-		13.579	Continuing	Continuing	Continuing
Product Development 4	C/T&M	SAIC : Falls Church, VA	17.061	-		-		-		-		-	-	17.061	17.061
Product Development 5	C/FFP	NGIT, : Reston, VA	21.669	-		-		-		-		-	-	21.669	21.669
Product Development 6	SS/FFP	UNISYS, : Falls Church, VA	14.501	1.250	Apr 2014	0.721	Apr 2015	-		-		-	Continuing	Continuing	Continuing
Product Development 7	MIPR	FGM, : Reston, VA	5.482	-		-		-		-		-	-	5.482	5.482
Product Development 8	SS/FFP	Merlin, : McLean, VA	1.664	-		-		-		-		-	-	1.664	1.664
Product Development 9	MIPR	JDTC, : Ft. Eustis, VA	2.423	-		-		-		-		-	-	2.423	2.423
Product Development 10	MIPR	CSC, : Norfolk, VA	0.300	-		-		-		-		-	-	0.300	0.300
<b>Subtotal</b>			183.183	9.911		12.696		13.579		-		13.579	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 1	C/CPFF	COMTEK, : Sterling, VA	3.902	-		-		-		-		-	-	3.902	3.902
Test & Evaluation 2	MIPR	SSO, : Montgomery	0.500	-		-		-		-		-	-	0.500	0.500
Test & Evaluation 3	MIPR	DIA : WDC	2.369	0.520	Nov 2013	0.436	Nov 2014	0.448	Sep 2016	-		0.448	Continuing	Continuing	Continuing
Test & Evaluation 4	C/CPFF	Pragmatics : Pragmatics	1.684	-		-		-		-		-	-	1.684	1.684
Test & Evaluation 5	C/CPFF	AAC, Inc., : Vienna, VA	2.340	0.450	Jul 2014	-		-		-		-	-	2.790	2.790
Test & Evaluation 6	MIPR	JITC, : Ft. Huachuca, AZ	5.028	0.330	Nov 2013	0.874	Nov 2014	0.891	Oct 2015	-		0.891	Continuing	Continuing	Continuing

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 7	MIPR	STRATCOM (DAA) : Bolling AFB, DC	0.305	0.153	Dec 2013	0.164	Dec 2014	0.167	May 2016	-		0.167	Continuing	Continuing	Continuing
Test & Evaluation 8	MIPR	DISA (TE LAB Support) : Fort Meade, MD	1.042	0.150	Oct 2013	0.071	Jul 2015	0.073	Oct 2015	-		0.073	Continuing	Continuing	Continuing
<b>Subtotal</b>			17.170	1.603		1.545		1.579		-		1.579	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services 1	FFRDC	MITRE, : Vienna, VA	16.934	-		-		-		-		-	-	16.934	16.934
Management Services 2	SS/CPFF	UMD, : Eastern Shore, MD	1.021	-		-		-		-		-	-	1.021	1.021
Management Services 3	MIPR	IDA, : Alexandria, VA	0.749	-		-		-		-		-	-	0.749	0.749
Management Services 4	MIPR	JFCOM, : Norfolk, Va	0.100	-		-		-		-		-	-	0.100	0.100
<b>Subtotal</b>			18.804	-		-		-		-		-	-	18.804	18.804

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			219.157	11.514	14.241	15.158	-	15.158	-	-	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Events – Milestone B/C: Increment 8 – MS B	
Acquisition Events – Milestone B/C: Increment 8 – MS C	
Engineering Events & Milestones: Software Sys Requirements Review (2 Major Releases Annually)	
Engineering Events & Milestones: Critical Design Review (2 Major Releases Annually)	
Developmental Test & Evaluation (2 Major Releases Annually)	
Contractor Integration Test (2 Major Releases Annually)	
Accept/Security Testing (2 Major Releases Annually)	
Operational Test & Evaluation (2 Major Releases Annually)	
Operational Test Readiness Review (2 Major Releases Annually)	
Fielding Decision (2 Major Releases Annually)	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0303141K / <i>Global Combat Support System</i>	<b>Project (Number/Name)</b> CS01 / <i>Global Combat Support System</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Events – Milestone B/C: Increment 8 – MS B	2	2014	2	2019
Acquisition Events – Milestone B/C: Increment 8 – MS C	4	2014	4	2019
Engineering Events & Milestones: Software Sys Requirements Review (2 Major Releases Annually)	1	2014	4	2019
Engineering Events & Milestones: Critical Design Review (2 Major Releases Annually)	1	2014	4	2019
Developmental Test & Evaluation (2 Major Releases Annually)	1	2014	3	2019
Contractor Integration Test (2 Major Releases Annually)	1	2014	3	2019
Accept/Security Testing (2 Major Releases Annually)	1	2014	4	2019
Operational Test & Evaluation (2 Major Releases Annually)	1	2014	4	2019
Operational Test Readiness Review (2 Major Releases Annually)	1	2014	4	2019
Fielding Decision (2 Major Releases Annually)	1	2014	4	2019



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	501.178	67.027	63.558	64.921	-	64.921	59.675	61.896	65.145	65.856	Continuing	Continuing
T30: <i>MRTFB Test and Evaluation</i>	132.498	11.798	7.494	8.182	-	8.182	8.012	7.940	8.068	8.062	Continuing	Continuing
T40: <i>Major Range Test Facility Base Operations</i>	368.680	55.229	56.064	56.739	-	56.739	51.663	53.956	57.077	57.794	Continuing	Continuing

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

The Defense Information Systems Agency's Joint Interoperability Test Command (JITC) serves as the only joint element of the Department of Defense's (DoD's) Major Range and Test Facility Base (MRTFB) that is operated primarily for Information Technology and National Security Systems (IT/NSS) Test and Evaluation (T&E) support missions. JITC executes the T&E mission in support of Command, Control, Communications, Computers and Intelligence (C4I), and is the DoD's Sole Interoperability Certifier and the only Non-Service Operational Test Agency.

With a focus on T&E for IT, JITC has the unique mission to provide consistent, structured, and effective T&E services that include converged information environment, Cyber, Cloud services, Mobility and NSS. JITC also has the responsibility for ensuring Joint/Coalition interoperability; issuing Interoperability Certifications; conducting Operational Evaluations; maintaining a federated IT infrastructure as a MRTFB Activity and providing direct interoperability support to the warfighter by ensuring Joint warfighting capabilities are interoperable and support mission needs.

<b>B. Program Change Summary (\$ in Millions)</b>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	67.626	63.558	61.761	-	61.761
Current President's Budget	67.027	63.558	64.921	-	64.921
Total Adjustments	-0.599	-	3.160	-	3.160
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.599	-	3.160	-	3.160

**Change Summary Explanation**

The FY 2014 decrease of -\$0.599 is the result of reductions in Warfighter support, travel, training and infrastructure updates and replacements.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

**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*

The FY 2016 increase of +\$3.160 will provide MRTFB infrastructure upgrades and improvements.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability				<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T30: MRTFB Test and Evaluation	132.498	11.798	7.494	8.182	-	8.182	8.012	7.940	8.068	8.062	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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / <i>C4I Interoperability</i>	<b>Project (Number/Name)</b> T30 / <i>MRTFB Test and Evaluation</i>
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- 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 2014	FY 2015	FY 2016
<p><b>Title:</b> DoD's Joint Interoperability Certification Authority</p> <p><b>Description:</b> Plans and executes interoperability certifications for Department of Defense's (DoD) Information Technology and National Security Systems (IT/NSS) by evaluating joint military operations, conformance to standards, and participating in developmental testing or executing purposefully planned Interoperability Test Events.</p> <p><b>FY 2014 Accomplishments:</b> Assured interoperability controls are were met by conducting Test and Evaluation (T&amp;E) on IT/NSS, Cyber, and acquisition programs. Provided interoperability test support for the DoD's migration to the Defense Enterprise Services and cloud services</p>	8.991	6.449	7.064

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>environments. Continued to evolve test policies and processes to proactively support the DoD's migration towards more agile development and acquisition of IT capabilities. Supported DoD mobility communications efforts by performing early assessments to evaluate mobility devices, infrastructure, and enterprise-level classified and secure unclassified services. Refined the testing methodology and executed additional test events in line with the Joint Information Environment (JIE) capability increments and phases.</p> <p><b>FY 2015 Plans:</b> Will assure interoperability controls are met by conducting T&amp;E on IT/NSS and acquisition programs. Will provide interoperability test support for the DoD's migration to a converged enterprise environment. Will support JIE by providing interoperability test, evaluation and certification support.</p> <p>Will support the secure operationalized interoperability of the JIE by developing policies and methodologies for the conduct of T&amp;E on enterprise services, cyber security capabilities, cloud computing and brokering, and mobile devices and applications. Will provide interoperability test, evaluation and certification support for JIE capabilities from the infrastructure to applications and continue to refine policies and test and evaluation methodologies as new technologies and approaches for JIE migration are developed and deployed.</p> <p>The decrease of -\$2.542 from FY 2014 to FY 2015 will require Joint Interoperability Test Command (JITC) to conduct very limited Joint Tactical Data Link events; reduce other interoperability certification and support capacity; limit contractor support, travel and training costs; and eliminate DoD Interoperability Communications Exercise (DICE) support.</p> <p><b>FY 2016 Plans:</b> Will focus on new T&amp;E capabilities designed to add flexibility and enhance collaboration with partners to improve T&amp;E services. Will leverage cloud and virtual technologies to provide automation and services that are more agile than physical test environments. Will continue to capitalize on big data analytics and tools to conduct data analysis in the operational environment allowing for continuous assessment of overall performance. This will provide a means to define trends, focus test events, as well as reduce risk through continuous monitoring and evaluation.</p> <p>The increase of +\$0.615 from FY 2015 to FY 2016 is for interoperability certifications support for DoD's migration to the Defense Enterprise Services and cloud services environments.</p>			
<p><b>Title:</b> Operational Test and Evaluation</p> <p><b>Description:</b> Conduct operational testing of IT/NSS under realistic operational conditions to determine the operational effectiveness, suitability, interoperability, and security of a particular system. Independently assesses the operational impact of system issues on mission accomplishment.</p>	1.080	0.783	0.856

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b><i>FY 2014 Accomplishments:</i></b> Continued to develop and pilot test methodologies to address OT&amp;E of DODIN/JIE enabling capabilities (Enterprise Services) and DISA IT/NSS acquisition programs to determine systems' operational effectiveness, suitability, interoperability, and security. Emphasis is was placed on correlating this information to IT Infrastructure Library best practices and International Organization for Standardization 20000 standards. Provided continuing continued OT&amp;E support to COCOMs, Military Services, and Defense Agencies with focus on improving core capabilities, OT&amp;E policy, operational evaluation, centralized data management, and agile test methodologies.</p> <p><b><i>FY 2015 Plans:</i></b> Will provide OT&amp;E for the JIE to ensure IT capabilities are effective, suitable, and secure. Provide continuing OT&amp;E support to COCOMs, Military Services, and Defense Agencies, as requested.</p> <p>The decrease of -\$0.297 from FY 2014 to FY 2015 is due to reductions in operational T&amp;E capacity and a delay in the evolution of OT&amp;E policy and new methodologies for the conduct of OT&amp;E, reduced contractor support and travel and training costs.</p> <p><b><i>FY 2016 Plans:</i></b> Will continue OT&amp;E processes, procedures, and tool improvement to evolve operational testing capabilities through the use of virtualization to emulate users and devices to better evaluate performance. Will provide OT&amp;E for JIE to ensure capabilities are effective, suitable, interoperable, and secure. Provide continuing OT&amp;E support to COCOMs, Military Services, and Defense Agencies, as requested.</p> <p>The increase of +\$0.073 from FY 2015 to FY 2016 is for development of new methodologies for the conduct of OT&amp;E.</p>			
<p><b><i>Title:</i></b> Support to Warfighter</p> <p><b><i>Description:</i></b> Provides pre/post-production evaluations including: collecting relevant data during a continuous monitoring effort, and providing on-the-spot evaluations of problem areas and viable mission-oriented solutions to warfighting COCOMs during exercises and contingency operations.</p> <p><b><i>FY 2014 Accomplishments:</i></b> Continued to support the warfighter in all regions, prioritizing efforts in the Asia Pacific region, consistent with the National Defense Strategy. This shift in focus included an effort to reestablish a liaison at the PACOM headquarters to help identify and coordinate the resolution of theater United States (US)/Coalition interoperability issues. Continued to provide on-demand rapid response contingency support to Regional COCOMs and streamline assessment support for the three largest COCOM interoperability exercises across Europe, Africa, and the Pacific. Addressed Hotline requests rapidly and aggressively. Continued</p>	1.727	0.262	0.262

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>efforts to refine its consultation and interoperability assessment services to the Joint Staff and functional COCOMs while seeking innovative means to deliver cost-effective, operationally-focused support across the full-spectrum of interoperability challenges.</p> <p><b>FY 2015 Plans:</b> Warfighter support will be eliminated in some regions and will focus support primarily on the Asia Pacific region, consistent with the National Defense Strategy and will only sustain a Warfighter capability to respond to critical fielded system issues.</p> <p>The decrease of -\$1.465 from FY 2014 to FY 2015 is due to Budget Control Act reductions and will require result in a reduction to Warfighter support (including civilian and contractor Hotline and COCOM support) and travel and training costs.</p> <p><b>FY 2016 Plans:</b> Will continue its focus support primarily on the Asia Pacific region, consistent with the National Defense Strategy and will only sustain a Warfighter Support capability to respond to critical fielded system issues.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	11.798	7.494	8.182

**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 performance for interoperability and operational test events is measured by customer satisfaction specific to capacity and quality as described below:

JITC issued over 952 interoperability testing and certification related products, and processed 82 ICTO requests for the ISG. JITC conducted 40 desk top reviews and conducted 60 new Unified Capabilities evaluations, adding 30 new products to the Unified Capabilities Approved Products List. Additionally, JITC responded to approximately 177 hotline calls from across the DoD, other federal Agencies and DoD supporting commercial sectors. One hundred percent were responded to within the requisite timelines which is two hours for responding to critical, exercise operational, or contingency related interoperability problems, and next business day for routine troubleshooting requests. Support levels are expected to remain steady in FY14 and FY15.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 0208045K / <i>C4I Interoperability</i>	T30 / <i>MRTFB Test and Evaluation</i>

In FY 2016, JITC will continue to measure percent (%) of OT&E test plans approved by DOT&E prior to start of test and percent (%) of OT&E test reports delivered within 60 days after test event ended with a target value of 95%. Measurement of customer satisfaction continues for T&E and Hotline Services with a target rating of 5 on a 5-point scale with 5 being the best rating.



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	36.487	-		-		-		-		-	-	36.487	36.487
Test and Evaluation	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	44.342	-		-		-		-		-	-	44.342	44.342
Test and Evaluation	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	25.831	-		-		-		-		-	-	25.831	25.831
Test and Evaluation	C/Various	Various : Various	3.229	7.881	Oct 2013	3.966	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Test and Evaluation	Option/CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	-	-		-		0.004	Oct 2015	-		0.004	Continuing	Continuing	Continuing
Test and Evaluation	Option/CPFF	AMERICAN SYSTEMS CORP : Various	-	-		-		0.066	Oct 2015	-		0.066	Continuing	Continuing	Continuing
Test and Evaluation	Option/CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	-	-		-		0.293	Oct 2015	-		0.293	Continuing	Continuing	Continuing
Test and Evaluation	Option/CPFF	OBERON ASSOCIATES : Various	-	-		-		0.056	Oct 2015	-		0.056	Continuing	Continuing	Continuing
Test and Evaluation	Option/CPFF	TASC, INC. : Various	-	-		-		1.174	Oct 2015	-		1.174	Continuing	Continuing	Continuing
Test and Evaluation	Option/FFP	Multiple : Various	-	-		-		0.776		-		0.776	Continuing	Continuing	Continuing
<b>Subtotal</b>			109.889	7.881		3.966		2.369		-		2.369	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Information Systems Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation
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Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	Various	Defense Information Systems Agency : Ft. Huachuca, AZ	22.609	3.917	Oct 2013	3.528	Oct 2014	5.813	Oct 2015	-		5.813	Continuing	Continuing	Continuing
<b>Subtotal</b>			22.609	3.917		3.528		5.813		-		5.813	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			132.498	11.798		7.494		8.182		-		8.182	-	-	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>MRTFB Test and Evaluation</i></b>																												
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems																												
Conduct joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Links (TDL)																												
Operate 24/7 Interoperability Hotline																												
Provide Joint/Combined Interoperability Test support to Combatant Commanders																												
Provide JIE Compliance Test and Evaluation framework and infrastructure																												
Provide Cyberspace Test and Evaluation framework and infrastructure																												
Plan and conduct the Defense Interoperability Communications Exercise (DICE)																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T30 / MRTFB Test and Evaluation
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MRTFB Test and Evaluation</i></b>				
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems	1	2014	4	2020
Conduct joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Links (TDL)	1	2014	4	2020
Operate 24/7 Interoperability Hotline	1	2014	4	2020
Provide Joint/Combined Interoperability Test support to Combatant Commanders	1	2014	4	2020
Provide JIE Compliance Test and Evaluation framework and infrastructure	1	2014	4	2020
Provide Cyberspace Test and Evaluation framework and infrastructure	1	2014	4	2020
Plan and conduct the Defense Interoperability Communications Exercise (DICE)	3	2014	2	2015

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability				<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T40: Major Range Test Facility Base Operations	368.680	55.229	56.064	56.739	-	56.739	51.663	53.956	57.077	57.794	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> MRTFB Improvements and Operations	55.229	56.064	56.739
<b>Description:</b> Information Technology and National Security Systems (IT/NSS), Command and Control (C2), Defense reform initiatives, and the Department of Defense's (DoD's) migration towards more agile development and acquisition of IT capabilities by providing Test and Evaluation (T&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.			
<b>FY 2014 Accomplishments:</b> Developed the strategies and implementation plans to evolve testing infrastructure, capabilities and services into Testing as a Service (TaaS), which will ensure repeatable, automated, selectable, consistent, and affordable services to all MRTFB customers. Supported DoD strategic initiatives by: providing the test capabilities and facilities infrastructure, process tracking and reporting systems, as well as hardware and software maintenance to enable direct test support to DoD's major IT/NSS acquisitions (e.g.,			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Joint Information Environment (JIE), Enterprise core services, Defense Enterprise Email, DoD Mobility Program, Global Combat Support System, Joint Tactical Data Links, C2, global/terrestrial/satellite/tactical communications systems). Continued efforts to provision a Joint T&amp;E Environment that meets the requirements of the entire spectrum of DoD's IT acquisition process and life cycle needs.</p> <p><b>FY 2015 Plans:</b> As an MRTFB, Joint Interoperability Test Command (JITC) will continue to provide the testing infrastructure and capabilities that are used when evaluating the Department's IT/NSS. Will continue sustainment of the infrastructure, laboratory and testing hardware/software to enable T&amp;E of a converged information environment, Cyber, Cloud services, Mobility, and NSS. Will continue to maintain technical workforce skills, support base operations, communications, automation, operating expenses at Indian Head, MD; Fort Huachuca, AZ; and Fort George G. Meade, MD.</p> <p>The increase of +\$0.835 from FY 2014 to FY 2015 is due to FY 2014 Budget Control Act reductions from the Budget Control Act, resulting in reduced infrastructure updates and replacements.</p> <p><b>FY 2016 Plans:</b> As an MRTFB, JITC operates the DISA IT test infrastructure. JITC will standardize testbed infrastructure at Fort George G. Meade, MD; Fort Huachuca, AZ; and Indian Head, MD and leverages cloud technologies to provide seamless distributed testing services and efficient use of testing equipment and resources for use across the Agency and the Department. The expanded use of automation, virtualization, and access to big data will enable the reduction of the MRTFB IT footprint. Will continue to maintain technical workforce skills, support base operations, communications, automation, operating expenses at each location.</p> <p>The increase of +\$0.675 from FY 2015 to FY 2016 is due to infrastructure renewal and replacement.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	55.229	56.064	56.739

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / <i>C4I Interoperability</i>	<b>Project (Number/Name)</b> T40 / <i>Major Range Test Facility Base Operations</i>

**E. Performance Metrics**

Metrics include: Percentage of time T&E networks service capabilities are available to support core mission areas, with a target availability rate of 98%. Beginning in FY15, JITC will monitor the percentage of all T&E services provided through one or more of their DISA TaaS catalog offerings. JITC will also establish the ability to scale based on customer demand signal, on an annual basis at first, and gain more efficiencies over time scaling twice annually, and ultimately quarterly. Target customer fulfillment rate is 100%. Future metrics will also begin to capture elements of the aging MRTFB infrastructure and its ability to support the Department by measuring the availability of T&E network infrastructure with a target availability rate of 99%.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Defense Information Systems Agency</b>											<b>Date: February 2015</b>		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability					<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations			

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Test and Evaluation 1	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	75.279	-		-		-		-		-	-	75.279	75.279
Test and Evaluation 2	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	99.188	-		-		-		-		-	-	99.188	99.188
Test and Evaluation 3	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	49.746	-		-		-		-		-	-	49.746	49.746
Test and Evaluation 4	C/Various	VARIOUS - pending development of query : VARIOUS	18.240	17.703	Oct 2013	18.538	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Test and Evaluation 5	Option/CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	-	-		-		0.218	Oct 2015	-		0.218	Continuing	Continuing	Continuing
Test and Evaluation 6	Option/CPFF	AMERICAN SYSTEMS COPR : Various	-	-		-		0.551	Oct 2015	-		0.551	Continuing	Continuing	Continuing
Test and Evaluation 7	Option/CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	-	-		-		3.502	Oct 2015	-		3.502	Continuing	Continuing	Continuing
Test and Evaluation 8	Option/CPFF	OBERON ASSOCIATES : Various	-	-		-		5.297	Oct 2015	-		5.297	Continuing	Continuing	Continuing
Test and Evaluation 9	Option/CPFF	TASC, INC. : Various	-	-		-		1.397	Oct 2015	-		1.397	Continuing	Continuing	Continuing
Test and Evaluation 10	Option/CPFF	BEACON GROUP SW, INC : Various	-	-		-		8.614	Oct 2015	-		8.614	Continuing	Continuing	Continuing
Test and Evaluation 11	Option/CPFF	Multiple : Various	-	-		-		9.178	Oct 2015	-		9.178	Continuing	Continuing	Continuing
<b>Subtotal</b>			242.453	17.703		18.538		28.757		-		28.757	-	-	-



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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Defense Information Systems Agency</b>													<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability					<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations						
<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Management Services	Various	Defense Information Systems Agency : Ft. Huachuca, AZ	126.227	37.526	Oct 2013	37.526	Oct 2014	27.982	Oct 2015	-		27.982	Continuing	Continuing	Continuing
<b>Subtotal</b>			126.227	37.526		37.526		27.982		-		27.982	-	-	-
<b>Project Cost Totals</b>			<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>				
<b>Project Cost Totals</b>			368.680	55.229	56.064	56.739	-	56.739	-	-	-				
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations	

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

Develop and Implement Interoperability test systems to support warfighters	[REDACTED]																											
	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208045K / C4I Interoperability	<b>Project (Number/Name)</b> T40 / Major Range Test Facility Base Operations

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Develop and Implement Interoperability test systems to support warfighters	1	2014	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	68.405	6.524	3.931	3.645	-	3.645	6.382	6.154	5.496	5.531	Continuing	Continuing
NND: <i>Multinational Information sharing</i>	68.405	6.524	3.931	3.645	-	3.645	6.382	6.154	5.496	5.531	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 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.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Information Systems Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	6.524	3.931	3.938	-	3.938
Current President's Budget	6.524	3.931	3.645	-	3.645
Total Adjustments	-	-	-0.293	-	-0.293
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.293	-	-0.293

**Change Summary Explanation**

The FY 2016 decrease of -\$0.293 is due to delayed services in classified testing and integration support for coalition network information sharing Continuous Monitoring and Risk Scoring (CMRS) activities.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>				<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NND: <i>Multinational Information sharing</i>	68.405	6.524	3.931	3.645	-	3.645	6.382	6.154	5.496	5.531	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 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 United States, 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Multinational Information Sharing	6.524	3.931	3.645
<b>Description:</b> 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. Initiated a			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>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.</p> <p><b>FY 2014 Accomplishments:</b> CENTRIXS CMNT: Enhanced CMNT capabilities and CENTRIXS connections based on user experiences and changing operational needs.</p> <p>Pegasus: Enhanced Pegasus Flexible Chat Platform (FCP) capability and enhanced chat services to all CCEB Nations by continuing to integrate the National Gateway Consolidation Plan.</p> <p>CFBLNet: Evaluated emerging capabilities and technologies supportive of coalition information sharing needs to include infrastructure virtualization. Identified and tested a simultaneous distributed Synthetic Environment capability for American, British, Canadian, and Australian exercises for operational gaps and ways to decrease or eliminate those gaps.</p> <p>UISS-APAN: Performed cloud analysis for transition from Enterprise Service Center (ESC) environment to cloud based hosting and developed capability improvements to increase user capacity.</p> <p><b>FY 2015 Plans:</b> CENTRIXS CMNT: Will support systems engineering, testing and integration on reconnaissance network requirement capabilities.</p> <p>Pegasus: Will implement the National Gateway Consolidation Plan for web services, VoIP and will continue to improve and to expand and enhance chat services to all CCEB Nations.</p> <p>CFBLNet: Will provide a Research, Development, Trials and Assessment (RDTA) testing environments for NATO, the CCEB nations and other mission essential nations. Will continue to evaluate emerging capabilities and technologies supportive of coalition information sharing needs.</p> <p>UISS-APAN: Will move Infrastructure as a Service (IaaS) to a cloud environment and continue to design and develop capability improvements to increase user capacity.</p>			



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p>The decrease of -\$2.593 between FY 2014 and FY 2015 is due to the completion of CMNT Phase I, II and III requirements in FY 2014.</p> <p><b>FY 2016 Plans:</b> CENTRIXS CMNT: Complete integration, and testing to increase interoperability of a broader range of customer edge router configurations.</p> <p>Pegasus: Perform testing and integration activities to replace and upgrade Pegasus Chat solution for interoperability with CCEB nations.</p> <p>CFBLNet: Provide integration and testing services to expand CFBLNet enclave to support Coalition Verification and Validation Environment (CV2E) enclave.</p> <p>UISS-APAN: Perform network system architecture designs, development and integration testing for commercial cloud services and mobility efforts.</p> <p>The decrease of -\$0.286 from FY 2015 to FY 2016 is due to delayed services in classified testing and integration support for coalition network information sharing Continuous Monitoring and Risk Scoring (CMRS) activities.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	6.524	3.931	3.645

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• O&M, DW/0301144K: <i>O&amp;M, DW</i>	47.741	52.414	49.863	-	49.863	50.753	50.871	51.018	51.503	Continuing	Continuing
• Proc, DW/0301144K: <i>Proc, DW</i>	5.433	-	0.596	-	0.596	0.683	0.714	1.011	1.011	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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>
<p>Measure: -Functional and/or Security Test &amp; Evaluation test cases.</p> <p>Performance Metric: -System will provide for 99.99% data integrity for authorized users sharing information cross COI. FY14 (Actual): Met FY15 (Estimate): Expected to Meet FY16 (Estimate): N/A</p> <p>-Maintain 99.99% confidentiality for users, by Nation between COI's. FY14 (Actual): Met FY15 (Estimate): Expected to Meet FY16 (Estimate): N/A</p> <p>-Direct traffic with 99.99% accuracy for chat, email, VOIP, file transfer, data storage and web service. FY14 (Actual): Met FY15 (Estimate): Expected to Meet FY16 (Estimate): N/A</p> <p>Methodology: -Assessment Plan -Sample ≥ 10K transactions (Email, chat &amp; file storage/transfer) -Conduct selected ST&amp;E test cases</p> <p>Measure: -Security</p> <p>Performance Metric: -Deny 98.5% of unauthorized user attempts FY14 (Actual): Met FY15 (Estimate): Expected to Meet FY16 (Estimate): N/A</p> <p>Methodology: -Assessment Plan</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>
<p>-DISA Field Security Operations will conduct penetration testing</p> <p>Measure: -Security</p> <p>Performance Metric: -Audit log must capture 99.99% of any unauthorized user activity. FY14 (Actual): Met FY15 (Estimate): Expected to Meet FY16 (Estimate): N/A</p> <p>Measure: -% of design, testing and integration activities for MNIS classified technology refresh projects complete (9 Nodes) – 100%</p> <p>Performance Metric: -Information Assurance (Classified) FY14 (Actual): N/A FY15 (Estimate): N/A FY16 (Estimate): Expected to Meet</p> <p>Methodology: -Technology Refreshes Projects – 100% -Direct traffic with 99.99% accuracy for chat, email, VOIP, file transfer, data storage and web service.</p> <p>Measure: -Number of CFBLNet Exercises/Events hosted</p> <p>Performance Metric: -Annual number of CFBLNet Exercises hosted <math>\geq</math> 2 Exercises Hosted (Empire Challenge &amp; CWIX)</p> <p>FY16 (Estimate): Expected to Meet</p> <p>-Annual number of Test Bed Exercise <math>\geq</math> 16 Test Events Hosted</p> <p>FY16 (Estimate): Expected to Meet</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>

Methodology:

-# of Exercises hosted per FY

Measure:

-Cloud integration, Development, Integration, Testing (Unclassified)

Performance Metric:

-% of Cloud Development, Testing, Integration and Implementation Complete = 100%

FY16 (Estimate): Expected to Meet

Methodology:

- Cloud Development and testing activities

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cross Domain Chat - develop & tech svcs	C/CPFF	Harris Corporation : Alexandria VA	14.949	0.200	Feb 2014	-		-		-		-	-	15.149	15.149
Cross Domain Solutions – operational capabilities support	C/CPFF	HAI/Raytheon : Arlington VA	11.781	-		-		-		-		-	-	11.781	11.781
Cross Domain Chat	C/CPFF	TBD : TBD	-	-		0.137	Jan 2015	0.100	Jan 2016	-		0.100	Continuing	Continuing	Continuing
Cross Domain Solutions - Ops Capabilities Spt	C/CPFF	CACI : Chantilly VA	0.200	0.450	Aug 2014	0.075	Feb 2015	0.075	Aug 2016	-		0.075	Continuing	Continuing	Continuing
<b>Subtotal</b>			26.930	0.650		0.212		0.175		-		0.175	-	-	-

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CLASSIFIED	MIPR	- : -	9.069	-		-		-		-		-	Continuing	Continuing	Continuing
Federally Funded Research Develop Center (FFRDC)	C/CPFF	MITRE : Arlington VA	7.328	-		-		0.822	Sep 2016	-		0.822	Continuing	Continuing	Continuing
Program support	C/CPFF	Ingenium and SAIC : Upper Marlboro MD and Washington D.C.	1.522	-		-		-		-		-	-	1.522	1.522
Engineering Support	C/CPFF	Raytheon : Arlington VA	8.580	-		-		-		-		-	-	8.580	8.580
DoD Services	MIPR	Various - SPAWAR and Pacific Warfighting Ctr : Hawaii	2.910	1.200	Feb 2014	1.122	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Project Planning and Management	C/CPFF	Harris Corporation : Alexandria VA	1.082	3.233	Mar 2014	-		-		-		-	-	4.315	Continuing
Engineering Support	C/CPFF	CACI : Chantilly VA	0.200	0.775	Nov 2013	0.050	Aug 2015	0.075	Aug 2016	-		0.075	Continuing	Continuing	Continuing
Project Planning	C/CPFF	TBD : TBD	-	-		1.553	Nov 2014	0.041	Jan 2016	-		0.041	Continuing	Continuing	-
Engineering Support	C/CPIF	TBD : TBD	-	-		-		0.937	Nov 2015	-		0.937	Continuing	Continuing	Continuing





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0301144K / <i>Joint/Allied Coalition Information Sharing</i>	<b>Project (Number/Name)</b> NND / <i>Multinational Information sharing</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MULTINATIONAL INFORMATION SHARING (MNIS) – Current Systems</i></b>				
CENTRIX Capability	1	2014	4	2019
CMNT	1	2014	4	2014
JITC Testing Security/C&A	1	2014	4	2019
CFBLNet	1	2014	4	2019
UIS	1	2014	4	2019



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	4.890	0.501	0.924	0.963	-	0.963	0.956	0.975	0.987	0.996	Continuing	Continuing
S32: <i>NMCS Command Center Engineering</i>	4.890	0.501	0.924	0.963	-	0.963	0.956	0.975	0.987	0.996	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 crypto-logical 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	0.512	0.924	0.970	-	0.970
Current President's Budget	0.501	0.924	0.963	-	0.963
Total Adjustments	-0.011	-	-0.007	-	-0.007
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.011	-	-0.007	-	-0.007

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

**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*

**Change Summary Explanation**

The FY 2014 decrease of -\$0.011 resulted in the delay of updates to Joint publications.

The FY 2016 decrease of -\$0.007 is the result of a reduction in non-pay requirements.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>				<b>Project (Number/Name)</b> S32 / <i>NMCS Command Center Engineering</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S32: NMCS Command Center Engineering</i>	4.890	0.501	0.924	0.963	-	0.963	0.956	0.975	0.987	0.996	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> NMCS Systems Engineering	0.501	0.924	0.963
<b>FY 2014 Accomplishments:</b> Maintained the NRG, PCC Toolkit and the Online Companion Reference for the CJCSI 3280.01M. Implemented a new missile warning system across the PCC's and modernized and consolidated NMCS systems. Conducted inspections of HEMP network sites.			
<b>FY 2015 Plans:</b> Will maintain the PCC Toolkit and the Online Companion Reference. Modernize and integrate NMCS capabilities (e.g., transmission platforms, data interfaces, security and graphical user interfaces). Will also integrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the National Leadership Command Capability (NLCC). These efforts also support the Joint Systems Engineering and Integration Office (JSEIO) mission and improve situational monitoring systems across the PCCs.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>	<b>Project (Number/Name)</b> S32 / <i>NMCS Command Center Engineering</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
The increase of +\$0.423 from FY 2014 to FY 2015 will significantly expand the engineering efforts to integrate NMCS systems into the NLCC.			
<b><i>FY 2016 Plans:</i></b> Will maintain the 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 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 addresses data integration and engineering activities required to deliver enterprise level solutions to meet NMCS priorities.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.501	0.924	0.963

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/PE	3.568	3.618	3.398	-	3.398	3.393	3.417	3.410	3.444	Continuing	Continuing
0302016K: O&M, DW											

**Remarks**

**D. Acquisition Strategy**

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

**E. Performance Metrics**

The NMCS Engineering Branch 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>	<b>Project (Number/Name)</b> S32 / <i>NMCS Command Center Engineering</i>

The NMCS met all FY 2014 performance metrics and is on track to meet its FY 2015 and FY 2016 metrics by delivering suitable products on schedule and within allocated resources 100% of the time.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Defense Information Systems Agency</b>												<b>Date:</b> February 2015			
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0302016K / National Military Command System-Wide Support				<b>Project (Number/Name)</b> S32 / NMCS Command Center Engineering							
<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Engineering/Tech Services	C/CPFF	Raytheon E-Sys : Arlington, VA	4.890	0.501	May 2014	0.924	Jan 2015	0.963	Jan 2016	-		0.963	Continuing	Continuing	5.525
<b>Subtotal</b>			4.890	0.501		0.924		0.963		-		0.963	-	-	5.525
			<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>			4.890	0.501	0.924		0.963		-		0.963	-	-	5.525	
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>	<b>Project (Number/Name)</b> S32 / <i>NMCS Command Center Engineering</i>	

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>NMCS</b>																												
Maintenance/Update of NMCS Reference Guide (ongoing/real-time)																												
Maintenance/Update of the PCC Toolkit																												
Completion of Study: NC2 over IP																												
Completion of SHF Upgrade																												
Inspection/Maintenance of HEMP sites in the NCR																												
Modernize Non-Secure Conferencing Networks																												
Implement PCC Dashboard																												
Milstar Cryptological Modernization																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302016K / <i>National Military Command System-Wide Support</i>	<b>Project (Number/Name)</b> S32 / <i>NMCS Command Center Engineering</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>NMCS</b>				
Maintenance/Update of NMCS Reference Guide (ongoing/real-time)	1	2014	4	2019
Maintenance/Update of the PCC Toolkit	1	2014	2	2018
Completion of Study: NC2 over IP	1	2014	2	2015
Completion of SHF Upgrade	1	2014	1	2015
Inspection/Maintenance of HEMP sites in the NCR	1	2014	4	2018
Modernize Non-Secure Conferencing Networks	1	2014	1	2016
Implement PCC Dashboard	1	2014	1	2016
Milstar Cryptological Modernization	1	2014	4	2015



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	93.715	11.031	9.612	10.186	-	10.186	9.720	9.913	9.963	10.052	Continuing	Continuing
E65: <i>Modeling and Simulation</i>	66.543	3.774	6.391	6.079	-	6.079	5.672	5.829	5.849	5.901	Continuing	Continuing
T62: <i>GIG Systems Engineering and Support</i>	27.172	7.257	3.221	4.107	-	4.107	4.048	4.084	4.114	4.151	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) (formerly Global Information Grid (GIG)) 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 Department of Defense 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 defines and validates that the overall technical strategies for DISA are aligned with key DoD Strategic Planning and Execution documents. These documents include the DoD IT Efficiency strategy, DoD CIO's Campaign Plan, Joint Information Environment (JIE) Roadmap and Concept of Operations, DoD Instructions and Memorandum, other critical high-level guidance documents and target architectures and transition plans. These strategies establish the foundation for technology investments, technical developments, and the operations and sustainment of critical net-centric products and services provided by DISA. The DISA Chief Technology Officer (CTO) conducts technical system engineering reviews and oversight. CTO's early identification of technology needs in coordination with DARPA and will be managed through the DISA Technology Information Repository (DTIR). CTO conducts system engineering oversight, as well as critical technology evaluations and technical maturity assessments.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	10.831	9.657	8.678	-	8.678
Current President's Budget	11.031	9.612	10.186	-	10.186
Total Adjustments	0.200	-0.045	1.508	-	1.508
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	0.200	-0.045	1.508	-	1.508

**Change Summary Explanation**

The FY 2014 increase of +\$0.200 is attributable to an increase in analysis to better shape and influence transport services related investments.

The FY 2015 decrease of -\$0.045 complements analysis efforts which will examine application of commercial 4G wireless technologies in DODIN to include tactical environments.

The FY 2016 increase of +\$1.508 will increase the Warfighters' competitive advantage by delivering critical innovative solutions to the Warfighters and evaluate, develop and implement a number of emerging technological innovations. Key technologies, such as the Next Generation of Cloud Services, will be developed and delivered to the Joint Information Environment community, the DoD, Combatant Commanders, and other Government agencies. Additionally, key technology initiatives such as future infrastructure architectures, Cyber Security, Software Defined Networks, Big Data solutions, cloud computing, mobile computing, mobile applications, wireless, social media, and knowledge management systems and services will be implemented.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>E65: Modeling and Simulation</i>	66.543	3.774	6.391	6.079	-	6.079	5.672	5.829	5.849	5.901	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 2014	FY 2015	FY 2016
<b>Title:</b> Modeling and Simulation	3.774	6.391	6.079
<b>FY 2014 Accomplishments:</b> Continued EWSE efforts to resolve near term (one to three years) high-priority technical issues impacting end-to-end interoperability and performance of DODIN capabilities in transport, computing services, applications, IA, NetOps and enterprise services.			
Continued FY 2013 efforts to enhance modeling capabilities to provide DISN IP and Transport Capacity Planning models. These enhancements included: (1) preparing for the FY 2015 Technology Refresh (feasibility tests required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for Enterprise Services and customer needs in DISA program/project decisions and planning (e.g. Joint Information Environment and Defense Enterprise Computing Centers); (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for the DISA Director, Cybercom, and Network Services; (4) enhanced modeling tools and techniques to provide inputs to network planning in support			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>of Unified Communications and E2E security goals of the evolving DISN; and (5) an updated version of the Joint Communications Simulation System.</p> <p><b>FY 2015 Plans:</b> Will continue EWSE efforts to resolve high-priority technical issues impacting E2E capabilities of DODIN in transport, computing services, applications, information assurance (IA), network operations (NetOps) and enterprise services. Will analyze additional cloud computing services that can be integrated or interoperated with DoD capabilities. Will examine application of commercial 4G wireless technologies in DODIN to include tactical environments. The results of analysis and examination will be socialized with the DoD community for action and adoption. Where appropriate, the results will also be documented in GIG Technical Profiles (GTP) for compliance by the Programs of Record (POR).</p> <p>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 2016 Technology Refresh (feasibility tests 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 and Defense Enterprise Computing Centers); (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for the DISA Director, CYBERCOM, and Network Services; (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; and (5) an updated version of the Joint Communications Simulation System.</p> <p>The increase of +\$2.617 from FY 2014 to FY 2015 funds efforts to resolve high-priority technical issues impacting the DODIN E2E performance in transport, computing services, applications, IA, NetOps and Enterprise Services. Specific work includes maturation of a system which will encrypt DoD data and allow its storage on commercial cloud technology.</p> <p><b>FY 2016 Plans:</b> 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 examine application of Software Defined Networking (SDN) technologies for Core Data Centers and DISN. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GIG Technical Profiles (GTP) for compliance by the Programs of Record (POR).</p> <p>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</p>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
Environment (JIE) initiatives and technical advances. These enhancements include: (1) preparing for the FY 2016 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 and Defense Enterprise Computing enters); (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for the DISA Director, CYBERCOM, GIG Operations, Mission Assurance, and Network Services; (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; and (5) an updated version of the Joint Communications Simulation System.			
The decrease of -\$0.312 between FY 2015 and FY 2016 is attributable to reduction in research efforts for Enterprise Wide Systems Engineering; specifically the Service Level Interoperability for Tactical Edge and Core (SLITEC) area.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.774	6.391	6.079

<b>C. Other Program Funding Summary (\$ in Millions)</b>										
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete / Total Cost
• PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	21.328	2.051	2.045	-	2.045	2.336	2.432	2.432	-	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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

**E. Performance Metrics**

DISN core bandwidth sufficiency, tied to transport and IP capacity planning and activation of bandwidth in the DISN core, to keep at least 25% spare capacity, to allow for provisioning of unforeseen requirements and rerouting under outages. Current status stands at 59.85% capacity, thus maintaining spare capacity in excess of 25%.

The EWSE projects will be measured by the number of systems engineering artifacts and/or DODIN Technical Profiles that are published to support interoperability of DoD programs; and the number of engineering/ technical solutions that are adopted by programs/initiatives across DoD, Combatant Commands (COCOMs), and the Services. These solutions will be coordinated with the stakeholders/users to ensure EWSE has the right solution to the right problem.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Product Development 1	SS/FFP	OPNET Tech, Inc. : Bethesda, MD	5.244	0.864	Aug 2014	1.296	Aug 2015	1.600	Aug 2016	-		1.600	Continuing	Continuing	Continuing
Product Development 2	C/CPFF	APPTIS : Chantilly, VA	1.562	0.127	Jan 2014	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	2.668	0.542	Jan 2014	0.569	Jan 2015	0.530	Jan 2016	-		0.530	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	2.086	0.766	Apr 2014	1.010	Apr 2015	1.025	Aug 2016	-		1.025	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	COMPTTEL : Arlington, VA	0.926	-		-		0.335	Jul 2016	-		0.335	Continuing	Continuing	1.261
Product Development 9	C/CPFF	MIT Lincoln Labs : Cambridge, MA	5.565	1.475	Dec 2013	2.599	Dec 2014	2.205	Dec 2015	-		2.205	Continuing	Continuing	Continuing
Product Development 10	MIPR	Various : Various	7.011	-		0.458	Jan 2015	0.384	Jan 2016	-		0.384	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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> E65 / Modeling and Simulation
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Host Based Security Ops Assessment	C/FFP	Summit Technologies, Inc : Ft Meade, MD	0.700	-		-		-		-		-	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
<b>Subtotal</b>			64.471	3.774		6.391		6.079		-		6.079	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	SS/CPFF	Comptel : Arlington, VA	2.072	-		-		-		-		-	Continuing	Continuing	2.072
<b>Subtotal</b>			2.072	-		-		-		-		-	-	-	2.072

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		66.543	3.774	6.391	6.079	-	6.079	-	-

**Remarks**



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Horizontal Engineering</i></b>	
Horizontal Engineering	
<b><i>Modeling and Simulation Applications</i></b>	
Modeling and Simulation Applications	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> E65 / <i>Modeling and Simulation</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Horizontal Engineering</i></b>				
Horizontal Engineering	1	2014	4	2019
<b><i>Modeling and Simulation Applications</i></b>				
Modeling and Simulation Applications	1	2014	4	2019

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration				<b>Project (Number/Name)</b> T62 / GIG Systems Engineering and Support			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T62: GIG Systems Engineering and Support	27.172	7.257	3.221	4.107	-	4.107	4.048	4.084	4.114	4.151	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Chief Technology Officer (CTO) has the responsibility of defining and validating the overall technical strategies for the Defense Information Systems Agency (DISA) in line with the DoD IT Efficiency strategy and Department of Defense Chief Information Officer (DoD CIO) Campaign Plan. These strategies establish the foundation for technology investments, technical development, Cooperative Research and Development Agreements, and the operations and sustainment of critical net-centric products and services provided by DISA. DISA CTO conducts technical system engineering reviews and oversight. CTO's early identification of technology needs will be managed through the Technology Management Framework (TMF), a part of the broader Advanced Technology Identification and Insertion Process (ATIIP). TMF uses as its substrate an institutionalized, directorate partnering construct (i.e. DISA CIO, CTO, Strategic Planning and Information (SPI)), based upon an Enterprise Architecture (EA) methodology.

The CTO supports end to end (E2E) technology evaluations, assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DoD Information Network (DODIN) architecture and standards. Our products provide actionable, decision-oriented information to the Secretary of Defense, Joint Staff, Military Services, Combatant Commands, and other mission partners in satisfying DoD mission objectives.

The CTO maintains the Technology Environment, which provides the infrastructure, tools, processes, and techniques to perform various types of assessments and evaluations. These include informal quick looks, technology demonstrations, proof-of-concept events, and technology piloting events, as well as formally orchestrated operational assessments. The Technology Environment is capable of supporting a broad range of topics and issues such as EA, wireless and mobile computing, transport technologies, net-centricity compliance, unified capabilities services, Web 2.0, cloud computing, and social networking.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Department of Defense Information Network (DODIN) Systems Engineering and Support (formerly Global Information Grid (GIG) Systems Engineering and Support)	7.257	3.221	4.107
<b>FY 2014 Accomplishments:</b> CTO utilized the DISA Technology Information Repository (DTIR) and further expanded its support of the DoD Campaign Plan and the DISA Strategic Plan to identify, demonstrate and assess new technology concepts and compatibilities.			
<b>FY 2015 Plans:</b> To support the transition of applications and services to Core Data Centers for Joint Information Environment (JIE) capabilities, concepts and operations, CTO will develop and mature cloud computing technologies and service delivery models. These technologies include, cyber threat and exploitation vectors and mitigations, full featured Geo-Location Policy Based Mobile Device			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>GIG Systems Engineering and Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Management and secure mobile multi user/environment technologies, next generation Software Defined Networks, and supporting concept of operations.</p> <p>The decrease of -\$4.036 from FY 2014 to FY 2015 is attributable to transitioning of pilots and research and development programs to programs of record and a reduction in DISA's performance of research, assessment, development, proof-of-concepts and pilots, adoption and integration, and transition of emerging and next generation technologies.</p> <p><b>FY 2016 Plans:</b> 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 &amp; 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, mature and developed.</p> <p>The increase of +0.886 from FY 2015 to FY 2016 will increase the Warfighters' competitive advantage by delivering critical innovative solutions to the Warfighters.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	7.257	3.221	4.107

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• O&M, DW/PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	6.550	5.052	4.730	-	4.730	4.673	4.890	4.925	5.026	Continuing	Continuing

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>GIG Systems Engineering and Support</i>

**D. Acquisition Strategy**

Market research during the acquisition process includes a review of DISA contracts, other DoD contract vehicles, and other Federal Government agency contracts which are advertised for Government-wide usage. This market research also includes consideration of small businesses including minority/women owned (8A) businesses, Historically Black Colleges and Universities, mentor/protégé and other specialized contract vehicles and processes. Market research evaluates all contractors available from DISA sources for their ability to deliver the products specifically required for the unique program efforts. The program works collaboratively with vendors to obtain generic cost data for planning and analysis purposes. Past and current contract prices for similar work and other government-wide agency contracts provide additional sources of information. Quotes from multiple sources help provide averages for more realistic cost estimates. DISA makes a concerted effort to award many of its contracts to small businesses. Additionally, many of the DISA contracts are awarded with multiple option periods. These have the benefit of fixing labor costs over an extended period and minimizing the administrative costs associated with re-issuing short-term contracts.

**E. 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:

1. 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.

FY14 Actual: 8 Assessed and 5 transitioned  
 FY15 Target: 8 Assessed and 5 transitioned  
 FY16 Target: 8 Assessed and 5 transitioned

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / GIG Systems Engineering and Support
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering and Technical Services	FFRDC	MITRE : McLean, VA	3.836	2.206	Oct 2013	1.485	Feb 2015	1.484	Oct 2015	-		1.484	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	-	0.249	0.249
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	-	1.211	1.211
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	-	1.601	1.601
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	-	11.794	11.794
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	2.450	0.800		1.010	Feb 2015	-		-		-	-	4.260	4.260
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : TBD	1.212	-		-		-		-		-	-	1.212	1.212
Engineering Technical Services	MIPR	TBD : TBD	1.262	2.053	Oct 2013	-		-		-		-	-	3.315	3.315
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	0.643	0.508	Jan 2014	0.400	Jan 2015	-		-		-	-	1.551	1.551
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		-		-		-		-	-	0.376	0.376
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	-	0.691	0.691
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.181	0.021		-		-		-		-	-	0.202	0.202
Product Development	C/FFP	SOLERS : Arlington, VA	0.400	0.595		-		-		-		-	-	0.995	0.995
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	0.500	-		-		-		-		-	-	0.500	0.500
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	-	0.351	0.351

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>GIG Systems Engineering and Support</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	0.415	-		0.326	Oct 2014	1.533	Dec 2015	-		1.533	Continuing	Continuing	Continuing
Engineering Technical Services	C/Variou	IV2: IT Consulting Services, LLC : Jackson, WY	-	1.074		-		0.650	Oct 2015	-		0.650	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : TBD	-	-		-		0.440	Oct 2015	-		0.440	Continuing	Continuing	Continuing
<b>Subtotal</b>			27.172	7.257		3.221		4.107		-		4.107	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	27.172	7.257		3.221		4.107		-		4.107	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>GIG Systems Engineering and Support</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Technical Direction Agent (TDA)</b>																												
Technical Direction Agent (TDA)																												
<b>Engineering Support</b>																												
Engineering Support																												
<b>Industry Technical Research</b>																												
Industry Technical Research																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>GIG Systems Engineering and Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Technical Direction Agent (TDA)</i></b>				
Technical Direction Agent (TDA)	4	2014	4	2019
<b><i>Engineering Support</i></b>				
Engineering Support	4	2014	4	2019
<b><i>Industry Technical Research</i></b>				
Industry Technical Research	4	2014	4	2019

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	147.007	45.536	25.325	36.883	-	36.883	15.221	15.163	14.631	14.761	Continuing	Continuing
PC01: <i>Presidential and National Voice Conferencing/</i>	27.691	25.704	5.866	22.630	-	22.630	3.222	3.215	3.217	3.215	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	119.316	19.832	19.459	14.253	-	14.253	11.999	11.948	11.414	11.546	Continuing	Continuing

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

The Defense Information Systems Network (DISN) is the Department of Defense's (DoD's) consolidated worldwide telecommunications capability that provides secure, end-to-end information transport for DoD operations. It also provides the warfighter and the Combatant Commands (COCOMs) with a robust Command, Control, Communications, Computing, and Intelligence infrastructure to support DoD net-centric missions and business requirements. The Defense Red Switch Network (DRSN) is a DoD Secure Voice, Command and Control Network that is controlled and directed by the Joint Staff and the Office of the Secretary of Defense. It provides multi-level secure, rapid, ad hoc, voice calling and conferencing capability to the President, Secretary of Defense, Services, COCOMs, subordinate organizations (military and civilian) and coalition allies. DRSN also supports the Presidential and National Voice Conferencing (PNVC) (formerly known as National Emergency Action Decision Network (NEADN)) and the Enhanced Pentagon Capability/Survivable Emergency Conferencing Network. These funds support three major efforts:

**DISN Systems Engineering Support:** This effort includes engineering for 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 PNVC (formerly called National Emergency Action Decision Network)) 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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	30.940	25.355	18.756	-	18.756
Current President's Budget	45.536	25.325	36.883	-	36.883
Total Adjustments	14.596	-0.030	18.127	-	18.127
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	14.596	-0.030	18.127	-	18.127

**Change Summary Explanation**

The FY 2014 increase of +\$14.596 is a result of initial funding for aircraft variants of the PNVC baseband equipment. Initiated new versions of the Multi-stream Summing Device and the Baseband Interface Group to meet airborne environmental requirements

The FY 2015 decrease of -\$0.030 results from reduced development efforts on the DISN Information Sharing Services Portal.

The FY 2016 increase of +\$18.127 is the result of one-time funding increase to the Presidential and National Voice Conferencing (PNVC) to complete the redesign of PNVC baseband equipment for the presidential aircraft. The increase is partially offset by completion of the DISN OSS development projects.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS				<b>Project (Number/Name)</b> PC01 / Presidential and National Voice Conferencing/			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
PC01: Presidential and National Voice Conferencing/	27.691	25.704	5.866	22.630	-	22.630	3.222	3.215	3.217	3.215	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Presidential and National Voice Conferencing (PNVC) (formerly called National Emergency Action Decision Network (NEADN))	25.704	5.866	22.630
<b>Description:</b> Presidential and National Voice Conferencing (PNVC) (formerly called National Emergency Action Decision Network (NEADN)) 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.			
<b>FY 2014 Accomplishments:</b> Hardware development of the Audio Conferencing Equipment and Baseband Interface Group (BIG) continued, along with the software development of the AEHF conference management features of the PNVC capability. PNVC BIG development models were delivered and began interface testing with other joint AEHF assets. Contract preparations and initial development of aircraft variants of the PNVC baseband equipment (Multi-stream Summing Device and Baseband Interface Group).			
<b>FY 2015 Plans:</b> Will continue 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 will be tested at various facilities by different organizations. The Joint Interoperability Test Command (JITC) in Ft Huachuca, AZ secures voice test facility that will be used to test the audio baseband equipment with the DRSN Switch, and also test the baseband kits. An Air Force Satellite Communications (SATCOM) testing facility in Colorado Springs, CO will be used for air testing. NSA will conduct testing of the BIG for cryptologic functions and testing will be completed at JITC in Ft Huachuca, AZ for			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> PC01 / Presidential and National Voice Conferencing/

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>interoperability with the rest of the baseband audio equipment. Support planning for aircraft integration activities undertaken by the Air Force E-4B and Navy E-6B, by providing assistance to facilitate integration of the audio baseband equipment as it affects the overall PNVC capability.</p> <p>The decrease of -\$19.838 from FY 2014 to FY 2015 is due to a removal of one-time reprogramming action (-\$15.000) to initiate the presidential aircraft capability upgrade as well as the planned completion of the key development efforts on the Baseband band Kit (-\$4.838), a HEMP protected transit case that will be used by the PNVC Special-user community.</p> <p><b>FY 2016 Plans:</b> 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 the military aircrafts, Air Force E-4B and Navy E-6B.</p> <p>The increase of +\$16.764 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	25.704	5.866	22.630

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• Procurement, DW/PE 0303126K: <i>Procurement, Defense-Wide</i>	5.300	7.695	1.435	-	1.435	1.487	1.496	1.620	-	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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications</i> - DCS	<b>Project (Number/Name)</b> PC01 / <i>Presidential and National Voice Conferencing/</i>
<p>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.</p> <p>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.</p> <p>Performance Metrics:</p> <p>Project Support Deliverables received on time</p> <p>FY14 (actual result): 100% FY15 (expected result): 100% FY16 (expected result): 100%</p> <p>Product Deliverable Milestones completed on time</p> <p>FY14 (actual result): 100% FY15 (expected result): 100% FY16 (expected result): 100%</p> <p>Successfully Tested Requirements:</p> <p>FY14 (actual result): N/a FY15 (expected result): 95% FY16 (expected result): 95%</p> <p>Critical Trouble Reports &gt; 6 months old</p> <p>FY14 (actual result): N/a FY15 (expected result): ≤ 4 FY16 (expected result): ≤ 4</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> PC01 / Presidential and National Voice Conferencing/
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
BIG Development Preparation	MIPR	NSA : Various	14.676	5.299	May 2014	2.000	Feb 2015	-		-		-	Continuing	Continuing	N/A
MSD-III Development	C/T&M	Raytheon : Largo, FL	8.479	3.000	May 2014	-		-		-		-	Continuing	Continuing	N/A
PNVC Baseband Equipment	TBD	Various : Various	0.000	3.200	Apr 2014	1.707	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	0.000	11.880	Jun 2014	-		20.396	Nov 2015	-		20.396	Continuing	Continuing	N/A
Systems Engineering	C/CPFF	Booz, Allen, Hamilton : McLean, VA	1.200	-		-		-		-		-	-	1.200	1.200
<b>Subtotal</b>			24.778	23.379		3.707		20.396		-		20.396	-	-	-

<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Systems Engineering	C/CPFF	Booz Allen Hamilton : McLean, VA	0.539	1.500	Oct 2013	1.334	Jan 2015	1.034	Nov 2015	-		1.034	Continuing	Continuing	N/A
Systems Engineering	FFRDC	Mitre : McLean, VA	0.000	0.450	Dec 2013	0.450	Jan 2015	0.450	Nov 2015	-		0.450	Continuing	Continuing	N/A
<b>Subtotal</b>			0.539	1.950		1.784		1.484		-		1.484	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Certification Testing	MIPR	Various : Various	1.624	-		-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			1.624	-		-		-		-		-	-	-	-



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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Defense Information Systems Agency</b>												<b>Date:</b> February 2015			
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS					<b>Project (Number/Name)</b> PC01 / Presidential and National Voice Conferencing/					
<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Management Services	FFRDC	Aerospace Corporation : Falls Church, VA	0.750	0.375	Nov 2013	0.375	Dec 2014	0.750	Nov 2015	-		0.750	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.750	0.375		0.375		0.750		-		0.750	-	-	-
			<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			27.691	25.704		5.866		22.630		-		22.630	-	-	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications</i> - DCS	<b>Project (Number/Name)</b> PC01 / <i>Presidential and National Voice Conferencing/</i>	

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>PNVC/DRSN Specification Development</i></b>																												
Baseband Enclosure																												
<b><i>PNVC/DRSN Interface Equip Dev</i></b>																												
Conference Mgt Software																												
<b><i>PNVC System Testing</i></b>																												
PNVC System																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications</i> - DCS	<b>Project (Number/Name)</b> PC01 / <i>Presidential and National Voice Conferencing/</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>PNVC/DRSN Specification Development</i></b>				
Baseband Enclosure	2	2014	2	2016
<b><i>PNVC/DRSN Interface Equip Dev</i></b>				
Conference Mgt Software	3	2014	4	2016
<b><i>PNVC System Testing</i></b>				
PNVC System	1	2015	4	2019

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS				<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T82: DISN Systems Engineering Support	119.316	19.832	19.459	14.253	-	14.253	11.999	11.948	11.414	11.546	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> IP & Optical Transport (a component of Tech Refresh)	6.414	3.442	3.442
<b>FY 2014 Accomplishments:</b>			
Completed Phase III and continued final Phase IV of the secure voice conference management improvements development with expected delivery in April 2015. Fielded infrastructure to allow secure classified mobile connections from the commercial network to multiple consolidated entry points into the DoD/DISN network. Funding enabled DoD to stay current on technology in the commercial market for small mobile devices that can provide unclassified communications to the end user. Funding also supported the testing of emerging technologies for new devices.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Will support DISA's 100G optical project that provides technical evaluation of 100G optical networking solutions. The Optical project supports the Joint Information Environment (JIE) by allowing end-to-end communications, consolidating network capabilities, and providing network normalization, consolidation, and information sharing. Will support the Defense Production Act Title III Optical Networking Project, for which DISA is a member, that's focus is to improve capability and security of optical long haul networks. The Title III project supports DISA's 100G Optical networking, and higher bandwidth requirements of the JIE.</p> <p>The decrease of -\$2.972 from FY 2014 to FY 2015 results from the completion of Phase III of the secure voice conference management improvement efforts.</p> <p><b>FY 2016 Plans:</b> 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.</p>			
<p><b>Title:</b> DISN OSS</p> <p><b>FY 2014 Accomplishments:</b> Initiated systems engineering support for development of the Personal Digital Assistant (PDA)-184 software, a data communications application that provides effective and efficient communications transport using local Radio Frequency (RF) via line of sight communications or over standard Integrated Waveform (IW) satellite communications channel globally. Deliverables included: independent verification and validation (IV&amp;V) and analysis, software development, procedures and standard development, interface development, and development testing and evaluation.</p> <p><b>FY 2015 Plans:</b> Completion of web procedures in support of Information Sharing Services. Will continue development of web modules and other web services in support of Information Sharing Services. Web applications developed throughout FY 2015 will be primarily focused on external customers based (e.g., Combatant Commands, Military Services, and Agency (CC/S/A)) Service Level Agreements defined and developed in FY 2013. Critical aspects of OSS Central will also be fully implemented, which will include system assurance and operationally driven customer focused modules. Will also provide continued support for Unified Capabilities with an emphasis on support for the integration of order entry, order management and configuration management for improved provisioning workflow and accurate and efficient of services to DISN customers.</p> <p>The increase of +\$0.346 from FY 2014 to FY 2015 will support the integration of order entry, order management and configuration management tools for the DISN.</p> <p><b>FY 2016 Plans:</b> No planned accomplishment.</p>	0.777	1.123	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
The decrease of -\$1.123 results from the draw down of development activities for the DISN Operations Support Systems.			
<p><b>Title:</b> Peripheral and Component Design</p> <p><b>FY 2014 Accomplishments:</b> Continued the efforts initiated in FY 2013, including progress on an Engineering Change Proposal (ECP) for refreshing the obsolete HEMP phone, other parts and end of life software. Completed two ECPs for DRSN peripherals.</p> <p><b>FY 2015 Plans:</b> Funding will continue to support regular design and development of upgrades and replacements for various components of DRSN Multi-Level Secure Voice Systems to deal with changing user requirements and technology end of life issues for components and peripherals. It is expected that one switch circuit card and one peripheral will be addressed in FY 2015.</p> <p>The increase of +\$0.262 from FY 2014 to FY 2015 is for a planned increase to the ECP support effort. These proposals support development and testing of replacements for switch components and peripherals that have obsolete parts, and replace them in order to maintain the system viability.</p> <p><b>FY 2016 Plans:</b> Perform integration and testing of the production units of switch IP Media cards (developed in FY12-14) to ensure compatibility with VoIP/VoSIP capabilities. Continue ECP effort from FY2015 to modify software to support full capabilities in to improve reliability and performance supporting transition to IP trunking between switches.</p>	1.632	1.894	1.894
<p><b>Title:</b> Mobility</p> <p><b>FY 2014 Accomplishments:</b> Provided international capability for secure voice, new device development and integration. Completed a prototype for PKE capability, test and development of authentication capabilities, and derived credentials. Development of mobile application framework, mobile content management, and security and lab architecture. Conducted field assessment testing of new capabilities.</p> <p><b>FY 2015 Plans:</b> DoD Mobility efforts include tech insertion and deployment of two (2) Device Mobile Classified Capability (DMCC) gateways OCONUS which will include Top Secret (TS) and Secret capabilities in the Pacific and Southwest Asia. In addition, tech insertion of TS data at two (2) CONUS sites, St. Louis, MO and San Antonio, TX will be completed. DoD Mobility will evaluate and test the centralized mobility management components for the Classified Components. Efforts to be tested and evaluated include 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</p>	11.009	13.000	8.917

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>insertion efforts to include Mobile VPN and Authentication, Mobile devices and Mobile Applications. Testing and Evaluation of Mobile Devices includes prototypes for next generation Classified Devices and additional Commercial Mobile Devices to test their interoperability across the Enterprise. Additionally, Mobile Applications will be tested and evaluated after purchase to ensure Mobile Applications are verified and validated prior to hosting on the Enterprise Mobile Application Store (MAS).</p> <p>The increase +\$1.991 from FY 2014 to FY 2015 is due to increased testing and evaluation activities for DoD Mobility NIPRNet Suite insertion efforts.</p> <p><b>FY 2016 Plans:</b> 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&amp;E) of centralization of the mobile device hardware, software, middleware, and MDM associated capabilities integration efforts. Will provide for T&amp;E of DoD Mobility NIPRNet &amp; SIPRNet Suite insertion efforts to include Mobile VPN and Authentication, mobile devices, and mobile applications. Will provide for T&amp;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&amp;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.</p> <p>Decrease of -\$4.083 from FY 2015 to FY 2016 is a pre planned reduction commensurate with the decreased testing requirements as the DoD Mobility Unclassified Capability (DMUC) continues to mature as planned post IOC which occurred January 2014. Additionally, as both the DMUC and DMCC Capabilities continue to mature in FY 2015 and beyond testing requirements will continue to decrease consistent with previously planned funding requirements.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	19.832	19.459	14.253

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M/PE0303126K: <i>Operation &amp; Maintenance, Defense-Wide</i>	73.766	75.015	70.604	-	70.604	72.480	74.029	-	-	Continuing	Continuing
• Procurement/PE0303126K: <i>Procurement, Defense-Wide</i>	120.257	77.564	79.136	-	79.136	97.847	118.657	120.025	-	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.

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**

DISN OSS: Funding provides development in DISN information sharing services that will be provided by the OSS Central web site. The objective is to develop OSS Central as the predominate interface for information sharing services for DISN customers. As a result of the development of information sharing capabilities, there will be an increase in OSS Central users. The following estimates provide the development of OSS Central Service Support procedures and the growth in OSS Central users.

OSS Central – Information Sharing Modules (cum.)

FY 2014 Actual: 14 Modules

FY 2015 Target: 14 Modules

FY 2016 Target: N/A

OSS Central – System Users (cum.)

FY 2014 Actual: 5,000 Users

FY 2015 Target: 6,800 Users



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>	<b>Project (Number/Name)</b> T82 / <i>DISN Systems Engineering Support</i>
<p>FY 2016 Target: N/A</p> <p>Customer Interface Center (CIC)  FY 2014 Actual: N/A  FY 2015 Target: N/A  FY 2016 Target: N/A</p> <p>COTS solution for customer orders  FY 2014 – 14 info sharing procedures, 10,000 users (71% of estimated user base complete)  FY2015 – 6,800 Users  FY2016 - COTS solution for customer orders</p> <p>The development of web procedures supports Information Sharing Services for both internal and external DISN users based on defined user group requirements. This metric supports the evolution of DISN users to OSS Central by providing Information Sharing Services.</p> <p>Tech Refresh: On time and on budget performance of contracted development at least 95% of the time. Meets acquisition milestones and agreed to schedule for delivery and testing. Component replacement development: Meets acquisition milestones and agreed schedule for delivery and testing at least 95% of the time. Measured using Earned Value Management with CPI &gt; 1 and SPI &gt;1</p> <p>Tech Refresh:</p> <p>Defense Production Act Title II Optical Networking Project  FY 2014 Target: Develop migration strategy  FY 2015 Target: Develop migration strategy  FY 2016 Target: Develop migration strategy</p> <p>100G Optical  FY 2014 Target: N/A  FY 2015 Target: 100G Optical Solution  FY 2016 Target: 100G Optical Solution</p> <p>DISN OSS – UC and Mobility  FY 2014: N/A  FY 2015: COTS solution for UC and Mobility  FY 2016: NA</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications</i> - DCS	<b>Project (Number/Name)</b> T82 / <i>DISN Systems Engineering Support</i>

DRSN: Will perform on time and within the restricted budget performance of contracted development at least 95% of the time. Will meet the agreed schedule for Systems Requirements Review (SRR), Preliminary Design Review (PDR), Critical Design Review (CDR), delivery and testing. Component replacement development meets the agreed schedule for SRR, PDR, CDR, delivery and testing at least 95% of the time.

Mobility: FY 2015 – Test commercial mobile devices and receive official, written approval (DISA certification and accreditation and security) within three months. Also includes testing and evaluation of three initiatives every quarter: one-off demonstrations follow up testing against the Mobile Device Management (MDM), verification of devices used against the MDM and requirements testing to ensure Mobility’s requirements have been met. Mobility will produce a detailed Implementation Plan, Concept of Operations and Standard Operating Procedures, for the Device Mobile Classified Capability (DMCC); by second quarter of FY 2015. Beyond this, the four identified DMCC Suites will be operational in the 2nd and 3rd Quarter of FY 2015.

FY 2016 – Continue Test and Evaluation 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 to include three Mobility initiatives every quarter 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. Beyond this, the four identified DMCC Suites will be operational and scaled to meet updated user population in the 2nd and 3rd Quarter of FY 2016.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon : Florida	7.083	1.661	Mar 2014	1.894	Mar 2015	1.894	Feb 2016	-		1.894	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	1.818	0.208		0.577	May 2015	-		-		-	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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	5.386	3.331	May 2014	3.442	May 2015	-		-		-	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	2.500	0.415	May 2014	0.546	May 2015	-		-		-	-	-	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.614	0.208	Apr 2014	-		-		-		-	-	-	-
Gateways - Mobility	TBD	TBD : TBD	-	3.529	Mar 2014	3.578	Jan 2015	-		-		-	-	-	-
Thin Client Solution - Mobility	TBD	TBD : TBD	0.300	1.000	Nov 2013	1.000	Nov 2014	-		-		-	-	-	-
New Field Communications	C/FFP	TBD : TBD	-	0.550	Jan 2014	0.550	Jan 2015	-		-		-	-	-	-
National Conference Management	MIPR	USAF : Ratheon	1.851	2.663	Jan 2014	-		-		-		-	-	-	-
IP Enable DRSN	MIPR	USAF : Ratheon	1.562	-		-		-		-		-	-	-	-
HEMP Phone Development	TBD	Raytheon : TBD	0.869	-		-		-		-		-	-	-	-
100G Optical	TBD	TBD : TBD	-	0.337	May 2014	-		-		-		-	-	-	-
Defense Production Act III Optical Networking	TBD	TBD : TBD	-	-		-		3.442		-		3.442	-	-	-
DoD Mobility Capability Service Assurance	C/FFP	TBD : TBD	-	-		1.942	Jan 2015	-		-		-	-	-	-
<b>Subtotal</b>			113.655	13.902		13.529		5.336		-		5.336	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IT Support - Mobility	C/FFP	Arieds, LLC : Ft. Meade	2.300	-		-		-		-		-	-	-	-
NS2 SE Support - Mobility	C/FFP	APPTIS : Ft. Meade	0.311	-		-		-		-		-	-	-	-
IT Support - Mobility	Various	TBD : TBD	-	3.000	Jan 2014	3.000	Jan 2015	-		-		-	-	-	-
<b>Subtotal</b>			2.611	3.000		3.000		-		-		-	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certification Testing	Various	JITC : Various	2.450	-		-		2.810	Oct 2015	-		2.810	Continuing	Continuing	Continuing
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	0.600	0.930	Oct 2013	0.930	Oct 2014	0.930	Oct 2015	-		0.930	-	-	-
Integration, Test adn Modification - Mobility	Various	TBD : TBD	-	2.000	Nov 2013	2.000	Nov 2014	5.177	Nov 2015	-		5.177	-	-	-
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
<b>Subtotal</b>			3.050	2.930		2.930		8.917		-		8.917	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Information Systems Agency								<b>Date:</b> February 2015					
<b>Appropriation/Budget Activity</b> 0400 / 7			<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS				<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support						
	<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	119.316	19.832		19.459		14.253		-		14.253	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>DRSN</b>																												
DRSN																												
<b>OSS</b>																												
OSS																												
<b>Technology Refresh</b>																												
Technology Refresh																												
<b>Mobility</b>																												
Unclassified Pilot -Phase1 Spiral 3 (1500 deployed devices)																												
Unclassified Pilot -Phase 2 (5000 deployed devices)																												
DoD Mobility Lab (Mirrors Operational Capability)																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
CONUS Gateway Deployment																												
Operational Capability: DoD Mobility Gateways																												
OCONUS Gateway Deployment																												
Operational Capability: NIPR Enclave (MDM, MAS) (50,000 Deployed Devices Capability)																												
MDM Deployment for up to 50,000 users																												
MAS Deployment for up to 50,000 users																												
Operational Capability: SIPR Enclave (MDM, MAS) End State 5,000 Deployed Devices																												
MDM Deployment for up to 5,000 users																												

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

MAS Deployment for up to 5,000 users																												
Operational Capability: TS Enclave (MDM, MAS) (End State: 1,000 Deployed Devices)																												
MDM Deployment for up to 1,000 users																												
MAS Deployment for up to 1,000 users																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / Long-Haul Communications - DCS	<b>Project (Number/Name)</b> T82 / DISN Systems Engineering Support

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>DRSN</b>				
DRSN	1	2015	4	2016
<b>OSS</b>				
OSS	1	2015	4	2016
<b>Technology Refresh</b>				
Technology Refresh	1	2015	4	2016
<b>Mobility</b>				
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
Operational Capability: TS Enclave (MDM, MAS) (End State: 1,000 Deployed Devices)	1	2015	4	2016

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications</i> - DCS	<b>Project (Number/Name)</b> T82 / <i>DISN Systems Engineering Support</i>
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
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 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	113.028	14.782	12.671	13.735	-	13.735	13.915	14.296	14.610	14.724	Continuing	Continuing
T64: <i>Special Projects</i>	55.178	5.559	5.148	5.170	-	5.170	5.247	5.240	5.352	5.352	Continuing	Continuing
T70: <i>Strategic C3 Support</i>	57.850	9.223	7.523	8.565	-	8.565	8.668	9.056	9.258	9.372	Continuing	Continuing

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

Minimum Essential Emergency Communications Network (MEECN) provides the Nuclear Command, Control, and Communications (NC3) engineer with plans and procedures; systems analysis; operational assessments; systems engineering; and development of concepts of operation and architectures. The NC3 System provides connectivity from the President and the Secretary of Defense through the National Military Command System to nuclear execution forces integral to fighting a “homeland-to-homeland,” as well as theater nuclear war. MEECN includes the Emergency Action Message dissemination systems and those systems used for integrated Tactical Warning/Attack Assessment, presidential decision-making conferencing, force report back, re-targeting, force management, and requests for permission to use nuclear weapons. Efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense, military forces, and an informed decision-making linkage between the President, the Secretary of Defense, and the Combatant Commands. MEECN ensures our national leadership has proper command and control of our forces during times of national emergency, up to and including nuclear war.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	13.144	12.671	13.323	-	13.323
Current President's Budget	14.782	12.671	13.735	-	13.735
Total Adjustments	1.638	-	0.412	-	0.412
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	1.638	-	0.412	-	0.412

**Change Summary Explanation**

The FY 2014 increase of +\$1.638 was the result of the completion of additional system assessments and development of overarching National Leadership Command Capabilities (NLCC) architecture to support future NLCC modernization.

The FY 2016 increase of +\$0.412 enables limited development of technical solutions that improve NLCC performance to meet evolving senior leader priorities aligned to changing world events.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
T64: <i>Special Projects</i>	55.178	5.559	5.148	5.170	-	5.170	5.247	5.240	5.352	5.352	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 2014	FY 2015	FY 2016
<b>Title:</b> Special Projects	5.559	5.148	5.170
<b>FY 2014 Accomplishments:</b> Classified.			
<b>FY 2015 Plans:</b> Classified.			
<b>FY 2016 Plans:</b> Classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.559	5.148	5.170

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

N/A

**Remarks**

**D. Acquisition Strategy**

Classified.

**E. Performance Metrics**

Classified.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>

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

<i>Classified</i>																												
Classified																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T64 / <i>Special Projects</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Classified</b>				
Classified	1	2014	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>				<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T70: <i>Strategic C3 Support</i>	57.850	9.223	7.523	8.565	-	8.565	8.668	9.056	9.258	9.372	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 provides 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Systems Analysis	4.690	2.370	-
<b>FY 2014 Accomplishments:</b> Continued to update and automate the Program Tracking Report, NC3 Architecture Diagrams and NC3 Scenarios document such that they are available to end users in real time. Supported additional engineering, and assessments of NC3 capabilities and vulnerabilities; further expanded the NC3 future architecture technical models; enhanced the NC3 roadmap; and continued engineering of communication and technology improvements for the NC3 systems.			
<b>FY 2015 Plans:</b> Will continue updates for the Program Tracking Report, NC3 Architecture Diagrams and NC3 Scenarios document. Will also continue to support engineering, documenting, and assessing the current NC3 architectures and vulnerabilities; further expanding the NC3 future architecture and development of a robust investment roadmap to support the mission of the Joint Systems Engineering and Integration Office (JSEIO) and Senior decision maker's.			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>The decrease of -\$2.320 from FY 2014 to FY 2015 will impact the enhancement, design and integration of NC3 capabilities to enable increased performance of the NLCC mission and senior leader priorities.</p> <p><b>FY 2016 Plans:</b> 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.</p>			
<p><b>Title:</b> Operational Assessments</p> <p><b>FY 2014 Accomplishments:</b> Continued planning and executing recurring operational assessments of the NC3 system.</p> <p><b>FY 2015 Plans:</b> Will continue the planning and executing of recurring operational assessments of the NC3 system.</p> <p>The decrease of -\$0.233 from FY 2014 to FY 2015 will cause a schedule slippages of mandated assessments of senior leader fixed, mobile and aerial communication and video capabilities.</p> <p><b>FY 2016 Plans:</b> 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 Architectural support.</p>	3.615	3.382	-
<p><b>Title:</b> Systems Engineering</p> <p><b>FY 2014 Accomplishments:</b> Enhanced engineering activities for airborne command centers and development of the SLC3S System Description document.</p> <p><b>FY 2015 Plans:</b> Will continue to provide engineering for airborne command centers and other aircraft and development of the SLC3S System Description.</p> <p>The increase of +\$.853 from FY 2014 to FY 2015 is the result of additional support for long range NLCC planning and vulnerability assessments that ensure NC3 capabilities adequately meet continuously evolving minimal performance requirements for Senior decision makers ( e.g., President, DoD command centers, aircraft (e.g., Air Force One and the National Airborne Operations Center) and other C2 platforms).</p> <p><b>FY 2016 Plans:</b></p>	0.918	1.771	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
The decrease of -\$1.771 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.			
<b>Title:</b> Systems Engineering, Analysis and Architecture	-	-	8.565
<b>FY 2016 Plans:</b> 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 (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 is the result of a realignment various JSEIO engineering/technical efforts towards focused on development of integrated holistic Systems Engineering, Analysis, and Architecture support to ensure tightly coupled solutions.			
<b>Accomplishments/Planned Programs Subtotals</b>	9.223	7.523	8.565

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• O&M, PE 0303131K: O&M	14.892	13.983	15.616	-	15.616	15.838	16.462	16.685	16.777	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.

**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 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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	T70 / <i>Strategic C3 Support</i>

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 2014 performance metrics and is on track to achieve the FY 2015 and FY 2016 targets of provisioning the Joint Staff requirements within the allocated resources 90% of the time.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering 1	C/CPAF	SAIC : McLean, VA	12.064	3.132	Aug 2014	2.432	Aug 2015	2.432	Aug 2016	-		2.432	Continuing	Continuing	Continuing
Systems Engineering 2	C/CPAF	Raytheon Company : Arlington, VA	25.623	3.342	Feb 2014	3.342	Feb 2015	3.342		-		3.342	Continuing	Continuing	Continuing
Systems Engineering 3	C/CPFF	Pragmatics : McLean, VA	9.070	1.010	Nov 2013	-		-		-		-	-	10.080	10.080
Systems Engineering 4	C/FP	Raytheon Company : Arlington, VA	4.320	1.739	Aug 2014	1.749	Feb 2015	1.749	Feb 2016	-		1.749	Continuing	Continuing	Continuing
Systems Engineering 5	C/CPFF	BAH : Falls Church, VA	4.273	-		-		-		-		-	-	4.273	4.273
Systems Engineering 6	C/CPFF	Harris Corporation : Melbourne, FL	2.500	-		-		-		-		-	-	2.500	2.500
Systems Engineering 7	C/CPAF	Carson Engineering : Bethesda, MD	-	-		-		1.042	Jun 2016	-		1.042	Continuing	Continuing	Continuing
System Engineering 8	C/FFP	MITRE Corp : McLean, VA	-	-		-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			57.850	9.223		7.523		8.565		-		8.565	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	57.850	9.223	7.523	8.565	-	8.565	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>NC3 Program Tracking Report</b>																												
NC3 Program Tracking Report	[REDACTED]																											
<b>Systems Analysis Documents</b>																												
Systems Analysis Documents	[REDACTED]																											
<b>NC3 Reference Architecture</b>																												
NC3 Reference Architecture	[REDACTED]																											
<b>Operational Assessments</b>																												
Operational Assessments	[REDACTED]																											
<b>NLCC Portfolio Roadmap</b>																												
NLCC Portfolio Roadmap	[REDACTED]																											
<b>NLCC System Engineering and Integration</b>																												
NLCC System Engineering and Integration	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303131K / <i>Minimum Essential Emergency Communications Network (MEECN)</i>	<b>Project (Number/Name)</b> T70 / <i>Strategic C3 Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>NC3 Program Tracking Report</b>				
NC3 Program Tracking Report	1	2014	3	2018
<b>Systems Analysis Documents</b>				
Systems Analysis Documents	1	2014	4	2018
<b>NC3 Reference Architecture</b>				
NC3 Reference Architecture	1	2014	4	2018
<b>Operational Assessments</b>				
Operational Assessments	1	2014	4	2018
<b>NLCC Portfolio Roadmap</b>				
NLCC Portfolio Roadmap	1	2014	1	2019
<b>NLCC System Engineering and Integration</b>				
NLCC System Engineering and Integration	1	2014	1	2019

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	432.346	27.814	33.793	21.503	-	21.503	11.314	12.141	11.624	11.731	Continuing	Continuing
CC01: <i>Global Command and Control System-Joint (GCCS-J)</i>	432.346	27.814	33.793	21.503	-	21.503	11.314	12.141	11.624	11.731	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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	28.288	33.793	22.120	-	22.120
Current President's Budget	27.814	33.793	21.503	-	21.503
Total Adjustments	-0.474	-	-0.617	-	-0.617
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.474	-	-0.617	-	-0.617

**Change Summary Explanation**

The FY 2014 decrease of -\$0.474 was due to delayed delivery of Joint C2 Mission Operational Priorities and software architecture modernization initiatives to reduce the overall sustainment cost.

The FY 2016 decrease of -\$0.617 is due to reduced modernization efforts through programmatic, engineering support, and development contract reductions, reduced security upgrades for v4.2.0.9, and reduced Joint Staff J-3/J-6 Operational Priorities to sustainment levels.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>				<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CC01: <i>Global Command and Control System-Joint (GCCS-J)</i>	432.346	27.814	33.793	21.503	-	21.503	11.314	12.141	11.624	11.731	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Development and Strategic Planning	15.970	16.215	11.229
<p><b>Description:</b> Develop, publish, and “execute” a GCCS-J migration and modernization strategy that achieves the following GCCS-J Modernization objectives in accordance with Joint C2 Mission “operational” priorities and the DoD’s JC2 Reference Architecture:</p> <ul style="list-style-type: none"> <li>• Continue to decompose applicable existing applications into services</li> <li>• Limit local deployment and move as much to the enterprise as possible</li> <li>• Continue to expose data and scale services to support an enterprise implementation</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>Continue to evolve more economical hardware and software architecture without impact to the operational user or Family of Systems (FoS)/interface partners</li> <li>Reduce overall sustainment cost through use of more cost effective and appropriate Commercial-off-the-Shelf (COTS) and Hardware (HW) products</li> <li>Evolve to use of agile development practices</li> <li>Consolidation of clients and tools</li> </ul> <p><b>FY 2014 Accomplishments:</b> Continued integration, testing, fielding and technical refreshment activities in support of the COCOMs. Transitioned local global enclaves to reusable enterprise deployments. Continued the testing and integration necessary to maintain interoperability between GCCS-J and the FoS. Continued migration to open source software based on capability usage feedback from the community on remaining components.</p> <p><b>FY 2015 Plans:</b> Continue development and testing activities for GCCS-J releases to implement enterprise deployment improvements. Deployment of enterprise capabilities will achieve and maintain information security at a lower cost.</p> <p>The increase of +\$0.245 from FY 2014 to FY 2015 is due to the replacement of legacy software tools.</p> <p><b>FY 2016 Plans:</b> Continue to update and execute the GCCS-J Modernization planning guidance based on lessons learned, operational priorities, and updated DoD guidance, and in support of the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities.</p> <p>The decrease of -\$4.986 from FY 2015 to FY 2016 is due to transition of GCCS-J baselines from development to sustainment.</p>				
<b>Title:</b> Joint Planning and Execution Services (JPES)		11.844	17.578	10.274
<p><b>Description:</b> JPES is a collection of capabilities supporting joint policies, processes, procedures, and reporting structures, that are supported by communications and information technology used by the JPEC. JPEC uses these capabilities to monitor, plan, and execute: mobilization, deployment, employment, sustainment, redeployment, and demobilization activities associated with joint operations.</p> <p><b>FY 2014 Accomplishments:</b> Completed development of the Joint Operation Planning and Execution System (JOPES) Implementation Plan for JOPES Modernization. Began work towards implementing the requirements to achieve Mission Assurance Category (MAC) I security</p>				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>accreditation status and used by additional APEX systems requiring a MAC I interface to APEX data. JPES Framework (JFW) provided an enhanced business rule engine and a workflow capability enabling the orchestration of APEX services provided by multiple APEX developers. Access to additional APEX data via JFW was achieved as prioritized by the APEX Technical Integrator. The first set of capabilities resulting from JOPES Modernization initiatives was developed and fielded.</p> <p><b>FY 2015 Plans:</b> Primary effort is to support the JOPES Modernization Implementation Plan. There will be further development of JPES applications to complete the integration of Joint Capabilities Requirements Manager (JCRM) and PFG with JFW and continue to evolve JFW Certified Data center Operations Manager (CDOM) to incorporate JPEC and GFM data objects. Migrate applications to JFW, and continue developing new widgets to support the JPE and GFM communities.</p> <p>The increase of +5.734 from FY 2014 to FY 2015 continues JOPES Modernization development to replace the legacy system which reaches end of life during 2017.</p> <p><b>FY 2016 Plans:</b> Continue improvements/expansion of JFW services to include replacement for newsgroups, workflow Management service, administration services for monitoring and management of austere environments. Widgets will continue to be developed to replace existing JOPES functionality and JCRM and PFG will be modernized.</p> <p>The decrease of -\$7.304 from FY 2015 to FY 2016 is due to offloading or deprecating external system interfaces from legacy JOPES to the modernized infrastructure which reduces testing and interoperability lifecycle costs.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	27.814	33.793	21.503

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0303150K: <i>Operation &amp; Maintenance, Defense-Wide</i>	126.537	128.488	124.072	-	124.072	123.676	-	-	-	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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>
<p>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.</p> <p><b><u>E. Performance Metrics</u></b></p> <p>Activity: Effectively communicate with external command and control systems</p> <p>FY 2014 (Actual): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces. Met.</p> <p>FY 2015 (Planned): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.</p> <p>FY2016 (Estimated): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.</p> <p>Activity: Fuse select C2 capabilities into a comprehensive, interoperable system eliminating the need for inflexible, duplicative, stovepipe C2 systems.</p> <p>FY 2014 (Actual): Successful fielding of GCCS-J Global Release 4.3 to designated Critical Sites. Met</p> <p>FY 2015 (Planned): Successful fielding of GCCS-J Global Release 5.0 to designated Critical Sites</p> <p>FY2016 (Estimated): Successful fielding of GCCS-J Global Release 6.0 to designated Critical Sites</p> <p>Activity: Development of Widgets and Plug-Ins to replace current (deprecated) functionality and/or add new functionality driven by the Joint Staff RPSP.</p> <p>FY 2014 (Actual): N/A</p> <p>FY 2015 (Planned): Develop, test, and release JC2CUI widgets and Agile Client plug-ins quarterly. FY15 Estimated: 100%</p> <p>FY 2016 (Estimated): Develop, test, and release JC2CUI widgets and Agile Client plug-ins quarterly. FY16 Estimated: 100%</p> <p>Activity: Modernize GCCS-J infrastructure components to reduce overall sustainment costs (COTS &amp; HW), increase scalability and performance through shift to enterprise deployment. Reduce release cycles through agile development and deployment.</p> <p>FY 2014 (Actual): N/A</p> <p>FY 2015 (Estimated): N/A</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>

FY 2016 (Estimated): Achieve Fielding Decision Review (FDR) for Global Release 6.0. FY16 Estimated: 100%

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	C/CPFF	NGMS : Reston, VA	20.289	-		-		-		-		-	-	20.289	20.289
Product Development 2	FFRDC	MITRE : McLean, VA	7.077	-		-		-		-		-	-	7.077	7.077
Product Development 3	SS/FFP	Dynamic Systems : Los Angeles, CA	3.189	-		-		-		-		-	-	3.189	3.189
Product Development 4	C/CPFF	Pragmatics : McLean, VA	31.239	-		-		-		-		-	-	31.239	31.239
Product Development 6	C/CPIF	BAH : McLean, VA	3.369	-		-		-		-		-	-	3.369	3.369
Product Development 7	C/CPIF	JPES Framework : Various	17.019	2.535	Dec 2013	-		-		-		-	-	19.554	19.554
Product Development 8	C/CPFF	RTB Development : Various	13.116	-		-		-		-		-	-	13.116	13.116
Product Development 9	C/CPFF	IGS Development : Various	12.398	-		-		-		-		-	-	12.398	12.398
Product Development 10	C/CPFF	SAIC : Falls Church, VA	4.826	-		-		-		-		-	-	4.826	4.826
Product Development 11	MIPR	SSC : San Diego, CA	13.217	0.100	Jan 2014	-		-		-		-	-	13.317	13.317
Product Development 12	C/CPFF	NGMS : Reston, VA	62.514	-		4.500	Dec 2014	-		-		-	-	67.014	67.014
Product Development 13	MIPR	NGIT : Various	1.772	-		-		-		-		-	-	1.772	1.772
Product Development 14	C/CPFF	NGMS : Reston, VA	62.191	10.626		-		8.764	Feb 2016	-		8.764	Continuing	Continuing	Continuing
Product Development 15	C/CPIF	Booz Allen Hamilton : McLean, VA	3.283	-		-		-		-		-	-	3.283	3.283
Product Development 16	C/CPFF	Booz Allen Hamilton : Various	0.431	3.254	Oct 2013	-		-		-		-	-	3.685	3.685
Product Development 17	C/CPAF	Booz Allen Hamilton : Falls Church, VA	1.229	-		-		-		-		-	-	1.229	1.229
Product Development 18	C/CPAF	AB Floyd : Alexandria, VA	12.477	-		-		-		-		-	-	12.477	12.477
Product Development 19	C/CPAF	Femme Comp Inc : Chantilly, VA	7.249	-		-		-		-		-	-	7.249	7.249

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency												Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 7				PE 0303150K / Global Command and Control System				CC01 / Global Command and Control System-Joint (GCCS-J)							
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 20	C/CPFF	SAIC : Falls Church, VA	5.876	-		-		-		-		-	-	5.876	5.876
Product Development 21	C/CPIF	Booz Allen Hamilton : McLean, VA	3.394	2.471	Oct 2014	-		-		-		-	-	5.865	5.865
Product Development 22	MIPR	JDISS : Various	6.039	-		-		-		-		-	-	6.039	6.039
Product Development 23	C/FFP	NGMS : Reston, VA	4.790	-		-		-		-		-	-	4.790	4.790
Product Development 24	MIPR	SPAWAR : Charleston, SC	5.270	3.264	Nov 2013	1.500	May 2015	-		-		-	-	10.034	10.034
Product Development 25	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS : Various	5.710	-		-		-		-		-	-	5.710	5.710
Product Development 26	C/CPAF	Tactical 3-D COP : Various	3.200	-		-		-		-		-	-	3.200	3.200
Product Development 27	SS/FFP	JITC : Various	20.400	-		-		-		-		-	-	20.400	20.400
Product Development 28	C/CPFF	TBD - JCRM : TBD	5.000	-		-		1.800	Apr 2016	-		1.800	Continuing	Continuing	Continuing
Product Development 30	C/CPFF	TBD : TBD	-	-		4.886	Jun 2015	1.000	Sep 2016	-		1.000	Continuing	Continuing	Continuing
Product Development 31	C/TBD	TBD : TBD	-	-		3.881	May 2015	1.569	Apr 2016	-		1.569	Continuing	Continuing	Continuing
Product Development 32	C/CPFF	TBD : TBD	-	-		3.783	Apr 2015	-		-		-	-	3.783	3.783
Product Development 33	C/TBD	TBD : TBD	-	-		4.600	Mar 2015	-		-		-	-	4.600	4.600
Engineering Services and Integration 29	SS/FFP	TBD : Various	3.009	-		2.773	Jun 2015	-		-		-	-	5.782	5.782
I3 Engineering Services & SW Development	C/TBD	NGIT : Various	1.811	-		-		-		-		-	-	1.811	1.811
Product Development 29	TBD	JOPEs modernization : TBD	-	2.043	Apr 2014	-		2.400	Sep 2016	-		2.400	Continuing	Continuing	Continuing
<b>Subtotal</b>			341.384	24.293		25.923		15.533		-		15.533	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support 1	C/T&M	Oracle : Various	1.003	-		-		-		-		-	-	1.003	1.003
Support 2	C/CPFF	JC2 Common Interface : Various	4.808	-		-		-		-		-	-	4.808	4.808
Support Costs - Engineering Support 3	FFRDC	MITRE : Various	0.754	-		-		-		-		-	-	0.754	0.754
Support Costs - Engineering Support 4	C/CPFF	Pragmatics : McLean, VA	2.574	1.225	Nov 2013	-		-		-		-	-	3.799	3.799
Support Costs - Engineering Support 5	C/CPFF	IPA : College Park, MD	0.283	-		-		-		-		-	-	0.283	0.283
Support Cost 6	C/FFP	STA : Falls Church, VA	2.122	-		0.650	Sep 2015	-		-		-	-	2.772	2.772
Support Costs	C/CPFF	TBD : TBD	-	-		3.700	Sep 2015	-		-		-	-	3.700	3.700
Support Cost 7	TBD	Pragmatics : McLean, VA	0.064	-		-		3.500	Sep 2016	-		3.500	Continuing	Continuing	Continuing
<b>Subtotal</b>			11.608	1.225		4.350		3.500		-		3.500	-	-	-

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



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Test & Evaluation 7	C/CPFF	Pragmatics : McLean, VA	0.308	-		-		-		-		-	-	0.308	0.308
Test & Evaluation 8	MIPR	JITC : Various	0.005	-		-		-		-		-	-	0.005	0.005
Test & Evaluation 9	MIPR	JITC : Various	0.138	0.759		-		-		-		-	-	0.897	0.897
Test & Evaluation 10	MIPR	DISA FSO : Various	0.277	0.782		-		-		-		-	-	1.059	1.059
Test & Evaluation 11	MIPR	TEMC Test Support : Various	0.229	-		-		-		-		-	-	0.229	0.229
Test & Evaluation 12	MIPR	DISA TEMC : Falls Church, VA	0.971	-		-		-		-		-	-	0.971	0.971
Test & Evaluation 13	MIPR	STRATCOM : Offut, NE	1.155	-		-		-		-		-	-	1.155	1.155
Test & Evaluation 14	MIPR	DISA FSO : Falls Church, VA	1.200	-		-		-		-		-	-	1.200	1.200
Test & Evaluation 15	C/CPFF	TQI : Falls Church, VA	1.698	-		-		-		-		-	-	1.698	1.698
Test & Evaluation 16	C/CPFF	TQI : Falls Church, VA	0.494	-		-		-		-		-	-	0.494	0.494
Test & Evaluation 17	MIPR	Slidell : Various	0.436	-		-		-		-		-	-	0.436	0.436
<b>Subtotal</b>			76.350	1.541		3.520		2.470		-		2.470	-	-	-

<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Management Services	MIPR	SSC Atlantic : Charleston, SC	3.004	0.755	Dec 2013	-		-		-		-	-	3.759	3.759
<b>Subtotal</b>			3.004	0.755		-		-		-		-	-	3.759	3.759

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Information Systems Agency								<b>Date:</b> February 2015					
<b>Appropriation/Budget Activity</b> 0400 / 7			<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>				<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>						
	<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	432.346	27.814		33.793		21.503		-		21.503	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development and Strategic Planning	[REDACTED]																											
Integration and Test	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303150K / <i>Global Command and Control System</i>	<b>Project (Number/Name)</b> CC01 / <i>Global Command and Control System-Joint (GCCS-J)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development and Strategic Planning	1	2014	4	2019
Integration and Test	1	2014	4	2019

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	130.608	8.050	13.393	20.342	-	20.342	17.091	12.516	12.872	12.987	Continuing	Continuing
JS1: <i>Joint Spectrum Center</i>	130.608	8.050	13.393	20.342	-	20.342	17.091	12.516	12.872	12.987	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	7.681	13.423	21.412	-	21.412
Current President's Budget	8.050	13.393	20.342	-	20.342
Total Adjustments	0.369	-0.030	-1.070	-	-1.070
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	0.369	-0.030	-1.070	-	-1.070

**Change Summary Explanation**

The FY 2014 increase of +\$0.369 provided contract support to enhance the effectiveness of DoD world-wide access to spectrum.

The FY 2015 decrease of -\$0.030 is the result of reduced contract support for the development of enhanced analytical tools.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

**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*

The FY 2016 decrease of -\$1.070 is due to delays in integrating spectrum capabilities within GEMSIS, transitioning emerging technologies to programs of record, and developing enterprise spectrum capabilities.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>JS1: Joint Spectrum Center</i>	130.608	8.050	13.393	20.342	-	20.342	17.091	12.516	12.872	12.987	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Joint Spectrum Center (JSC), which is a division of 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. 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 2014	FY 2015	FY 2016
<b>Title:</b> Advanced Spectrum Tools	3.626	6.944	0.860
<p><b>Description:</b> The Joint Spectrum Data Repository and Tools program supports development of spectrum management tools, spectrum modeling and simulation capabilities, spectrum database development, and spectrum data transformation and standardization. This program provides the Combatant Commands (COCOMs) and Military Services with the spectrum management tools and associated databases to manage spectrum resources at the strategic and operational level. It also provides the DoD acquisition community with analytical tools to conduct Electromagnetic Environmental Effects (E3) analyses and Spectrum Supportability Risk Assessments (SSRA).</p> <p><b>FY 2014 Accomplishments:</b> Enhanced the Joint Spectrum Data Repository (JSDR) by developing and deploying a statistical data quality assessment capability that addressed all frequency assignment files currently hosted by the DSO. Implemented an unclassified but sensitive internet protocol router network (NIPRNet) version of the JSDR at a Defense Enterprise Computing Center (DECC). Initiated development of Spectrum XXI Online (SXXIO) v2.3. Enhanced the automated data sharing capabilities (Stepstone and Joint Data Access Web Server (JDAWS)) and the spectrum data exchange standard based on refined requirements generated through the activities of data Communities Of Interest (COIs). Initiated development of Spectrum Relocation/Requirements Analysis Capability (SRRAC) v2.0. Improvements to the spectrum supportability risk assessment tool included additional "Wizards" for</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>novice users, and enabling secure remote access by connecting to the SIPRNet. Development and information assurance activities enabled deployment of the Mass Relocation Tool.</p> <p><b>FY 2015 Plans:</b> Will focus on fielding SXXIO Full Operational Capability (FOC), hosting of SRRAC v2.0 and the spectrum supportability risk assessment tool on SIPRNet, and further developing 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. DSO will deploy the enhanced JSDR Initial Operational Capability (IOC) at a DISA Enterprise Service Center (ESC). This new version of the JSDR software will implement 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.</p> <p>Will focus on fielding SXXIO Full Operational Capability (FOC), hosting of SRRAC v2.0 and the spectrum supportability risk assessment tool on SIPRNet, and further developing capabilities to support situational awareness of spectrum use at the strategic and joint operational level to include coordination and integration with evolving JEMSO capabilities. DSO will deploy the enhanced JSDR Initial Operational Capability (IOC) at a DISA Enterprise Service Center (ESC). This new version of the JSDR software will implement 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.</p> <p>The increase of +\$3.318 from FY 2014 to FY 2015 will allow deployment of a NIPRNet instance of the JSDR including development and fielding of a cross domain solution for the new spectrum data standard. This increase will enable continued development of SXXIO features through FY 2015 that will support the full range of spectrum assignment and coordination processes, and support the eventual sunset of legacy SXXI. The increase will also enable SRRAC v2.0 to be hosted on SIPRNet.</p> <p><b>FY 2016 Plans:</b> 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.</p> <p>The decrease of -\$6.084 from FY 2015 to FY 2016 is the result of the realignment of the JSDR &amp; Spectrum XXI Online efforts and funding into the Global Electromagnetic Spectrum Information System (GEMSIS) to re-baseline the GEMSIS program.</p>				
<b>Title:</b> DoD Electromagnetic Environmental Effects (E3) Program		1.323	1.397	4.667
<b>Description:</b> 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				



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

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

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 Electromagnetic (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 2014 Accomplishments:***

Conducted four HERO surveys for forward deployed bases and critical reviews of approximately 400 JCIDS documents supporting DoD acquisition, research and analysis efforts. Conducted quality assurance inspections.

***FY 2015 Plans:***

Will initiate conversion of the JOERAD to a web-based capability. Will conduct Joint Ordnance Commanders Group (JOCG) HERO Subgroup meetings and support the JOCG Executive Committee. Will develop ordnance susceptibility data records and perform quality data inspections for use in ordnance deconfliction. Will conduct up to eight forward HERO surveys for the COCOMs/Services. Will conduct CONUS base emitter surveys for ordnance safety database validation and update the DoD ordnance radio frequency (RF) safety requirements. Will update MIL-HDBK-235 Electromagnetic Environment (EME) Profiles to address blue force jammer environment. Will continue to implement the DoD E3 Program on behalf of OSD in support of system acquisitions. Will review approximately 400 JCIDS and Information Support Plan (ISP) documents assigned by the Joint Staff and DoD CIO.

The increase of +\$0.074 from FY 2014 to FY 2015 will enable the JOCG HERO Subgroup meetings to be conducted and fully support the JOCG Executive Committee, develop additional ordnance susceptibility data records, and perform quality data inspection for use in ordnance deconfliction. In addition, will provide spectrum and E3 training modules for DAU program management and systems engineering curriculum and fully support the JCIDS acquisition process.

***FY 2016 Plans:***

Will convert the Joint Ordnance E3 Assessment Database (JOERAD) to a web-enabled application compliant with the Standard Spectrum Resource Format. Will conduct Joint Ordnance Commanders Group (JOCG) Hazards Electromagnetic Radiation to Ordnance (HERO) Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance radio frequency (RF) safety requirements. Will update MIL-HDBK-235, "Electromagnetic Environment (EME) Profiles" and develop EME profiles to address

FY 2014	FY 2015	FY 2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 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 Information Support Plan (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.</p> <p>The increase of +\$3.270 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, "Electromagnetic Environment (EME) Profiles" and EME profiles to address blue force jammer and electronic warfare environments.</p>			
<p><b>Title:</b> Emerging Spectrum Technologies (EST)</p> <p><b>Description:</b> DSO has the responsibility to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization through technological innovation. The goal of the EST program is to identify the opportunities and risks associated with emerging spectrum-related technologies in the early stages of the technology development, influence and lead technology development in order to maximize DoD spectrum utilization, and ensure that spectrum policies incorporate optimal technology to meet DoD mission requirements. Within EST there is an increased focus on Dynamic Spectrum Access (DSA). DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements.</p> <p><b>FY 2014 Accomplishments:</b> Focused on supporting the Defense Enterprise Spectrum Strategy, to include developing enabling concepts, processes, standards, and architectures for the application of DSA and other promising spectrum sharing methods to meet DoD's growing spectrum requirements.</p> <p><b>FY 2015 Plans:</b> Efforts will focus on maturing the enabling concepts, processes, standards, and architectures for the application of DSA and other promising sharing methods to meet DoD's growing spectrum requirements. Coordination and collaboration with operational, policy/regulatory, and technology oriented stakeholders will be conducted.</p> <p>The increase of +\$1.039 from FY 2014 to FY 2015 will enable initial efforts to plan for and coordinate a concept demonstration of spectrum sharing capabilities with stakeholders. This will be accomplished through the application of DSA.</p>	1.315	1.596	3.123

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>The increase of +\$0.281 from FY 2014 to FY 2015 will enable initial efforts to plan for and coordinate a concept demonstration of spectrum sharing capabilities with stakeholders. This will be accomplished through the application of DSA.</p> <p><b>FY 2016 Plans:</b> Will focus on collaboration with the Science and Technology community (including Assistant Security Defense for Research and Engineering (ASDR&amp;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.</p> <p>The increase of +\$1.527 from FY 2015 to FY 2016 will continue efforts to improve spectrum sharing capabilities through DSA.</p>			
<p><b>Title:</b> Global Electromagnetic Spectrum Information System (GEMSIS)</p> <p><b>Description:</b> The Global Electromagnetic Spectrum Information System (GEMSIS) is a net centric capability that will provide operational commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations.</p> <p><b>FY 2014 Accomplishments:</b> Increment two implemented and deployed the Integrated Spectrum Desktop v2.0 enhanced capabilities with integration of improved frequency assignment and spectrum management tools and web services from JSDR, SXXIO, and the Afloat Electromagnetic Spectrum Operations Program (AESOP).</p> <p><b>FY 2015 Plans:</b> Will improve/enhance user interface and deliver the Spectrum dashboard to enable quick access to information and capabilities. Integration efforts will include implementation of SXXIO v2.3, Stepstone v2.1, JSDR and other services.</p> <p>The increase of \$1.670 from FY 2014 to FY 2015 will enable further development of user interfaces and the Spectrum dashboard.</p> <p><b>FY 2016 Plans:</b> 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 (CJSMP). Will improve/enhance user interface and deliver the Spectrum dashboard to enable quick access to information and capabilities. Integration efforts will include</p>	1.786	3.456	11.692

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
implementation of E2ESS (HNSWDO and Stepstone capabilities combined), SXXIO, JSDR, and CJSMPPT maintenance and version releases and other enterprise service integration into the Integrated Spectrum Desktop.			
The increase of +\$8.236 from FY 2015 to FY 2016 is due to the realignment of \$5.965 from Advanced Spectrum Tools to rebaseline GEMISIS and \$2.271 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.050	13.393	20.342

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/PE 0303153K: O&M, DW	37.133	35.192	35.366	-	35.366	35.461	38.517	37.881	-	Continuing	Continuing

**Remarks**

**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. GEMISIS' 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 electromagnetic environmental effects (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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Technical Engineering Services 1	C/CPIF	EXELIS, Inc. : Herndon, VA	118.342	6.297	Oct 2013	12.040	Oct 2014	18.989	Oct 2015	-		18.989	Continuing	Continuing	Continuing
Technical Engineering Services 2	MIPR	Various : Various	3.205	0.355	Oct 2013	0.355	Oct 2014	0.355	Oct 2015	-		0.355	Continuing	Continuing	Continuing
<b>Subtotal</b>			121.547	6.652		12.395		19.344		-		19.344	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	MIPR	JTIC : Ft. Huachuca	1.912	0.400	Oct 2013	-		-		-		-	-	2.312	2.312
<b>Subtotal</b>			1.912	0.400		-		-		-		-	-	2.312	2.312

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	FFRDC	MITRE : Ft. Monmouth, NJ	7.149	0.998	Oct 2013	0.998	Oct 2014	0.998	Oct 2015	-		0.998	Continuing	Continuing	Continuing
<b>Subtotal</b>			7.149	0.998		0.998		0.998		-		0.998	-	-	-

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			130.608	8.050	13.393	20.342	-	20.342	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

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

<b>Joint Spectrum Center</b>																												
Spectrum XXI Online (SXXIO) Fielding	[REDACTED]																											
SXXIO Version Releases	[REDACTED]																											
Joint Ordnance E3 Risk Assessment Database (JOERAD) Releases	[REDACTED]																											
Dynamic Spectrum Access (DSA) Research Projects	[REDACTED]																											
Spectrum Data Sharing Capability Deployments	[REDACTED]																											
GEMSIS Host Nation Spectrum Worldwide Database Online (HNSWDO) Version 3.6 and 3.7 Releases	[REDACTED]																											
GEMSIS Coalition Joint Spectrum Management Planning Tool (CJSMPT) Releases	[REDACTED]																											
Increment Two GEMSIS	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303153K / <i>Defense Spectrum Organization</i>	<b>Project (Number/Name)</b> JS1 / <i>Joint Spectrum Center</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Joint Spectrum Center</b>				
Spectrum XXI Online (SXXIO) Fielding	3	2014	4	2015
SXXIO Version Releases	3	2014	4	2017
Joint Ordnance E3 Risk Assessment Database (JOERAD) Releases	3	2014	4	2016
Dynamic Spectrum Access (DSA) Research Projects	3	2014	4	2016
Spectrum Data Sharing Capability Deployments	3	2014	4	2016
GEMSIS Host Nation Spectrum Worldwide Database Online (HNSWDO) Version 3.6 and 3.7 Releases	3	2014	4	2015
GEMSIS Coalition Joint Spectrum Management Planning Tool (CJSMPT) Releases	2	2014	4	2016
Increment Two GEMSIS	1	2014	4	2017

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>											
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>											
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	241.633	3.259	3.774	0.444	-	0.444	1.701	1.581	1.274	1.285	Continuing	Continuing
T57: <i>Net-Centric Enterprise Services (NCES)</i>	241.633	3.259	3.774	0.444	-	0.444	1.701	1.581	1.274	1.285	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	3.325	3.774	1.274	-	1.274
Current President's Budget	3.259	3.774	0.444	-	0.444
Total Adjustments	-0.066	-	-0.830	-	-0.830
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.066	-	-0.830	-	-0.830

**Change Summary Explanation**

The FY 2014 decrease of -\$0.066 is the result of decreased testing requirements.

The FY 2016 decrease of -\$0.830 is the result of deferred scheduled integrations of evolving commercial technologies into the Enterprise Services due to reduced presence at test events.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>				<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T57: <i>Net-Centric Enterprise Services (NCES)</i>	241.633	3.259	3.774	0.444	-	0.444	1.701	1.581	1.274	1.285	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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> Test and Evaluation</p> <p><b>FY 2014 Accomplishments:</b> Supported the phased testing during development of the replacement Defense Enterprise Collaboration service based on open source technology and supported the development testing of the Enterprise Store Front providing widget support to the Command and Control community.</p> <p>Supported the operational testing required for enhancements, upgrades, or added functionality to operational enterprise services. Supported the additional analysis of industry standards and specifications to facilitate the rapid integration of emerging commercial technologies into existing operational enterprise services and services transitioning from local services to enterprise services.</p> <p><b>FY 2015 Plans:</b> 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.</p> <p>The increase of +\$0.515 from FY 2014 to FY 2015 is due to requirements for operational testing and evaluation of emerging enterprise services and testing and modeling and simulation associated with jumpstarting enterprise services that can be leveraged by the Joint Information Environment.</p> <p><b>FY 2016 Plans:</b> 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.</p> <p>The decrease of -\$3.330 from FY 2015 to FY 2016 is the result of decreased testing requirements primarily due to the completion of the development, transitioning, and testing of the replacement Defense Enterprise Collaboration service.</p>	3.259	3.774	0.444
<b>Accomplishments/Planned Programs Subtotals</b>	3.259	3.774	0.444

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/PE 0303170K: <i>O&amp;M, DW</i>	126.426	96.995	94.394	-	94.394	98.321	100.887	105.495	106.520	Continuing	Continuing
• Procurement, DW/PE 0303170K: <i>Procurement, DW</i>	3.086	1.921	1.819	-	1.819	1.793	1.820	1.828	1.830	Continuing	Continuing

**Remarks**

**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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>
<p>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.</p> <p>Activity:</p> <ul style="list-style-type: none"> <li>• Requirements Satisfaction</li> </ul> <p>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.</p> <p>Expected Outcome:</p> <p>FY2014 (Results): Began the transition activities required to replace the Defense Enterprise Collaboration service with a functional replacement capability; completed the transition of Enterprise Store Front into the portfolio.</p> <p>FY2015 (Plan): Complete 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.</p> <p>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.</p> <p>Activity:</p> <ul style="list-style-type: none"> <li>• Portfolio Evolution</li> </ul> <p>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.</p> <p>Expected Outcome:</p> <p>FY2014 (Results): Transitioned the Strategic Knowledge Integration Web to an X86 platform, implemented an open source database, and researched a bug in the existing software; transitioned to an open source technology for the replacement Defense Enterprise Collaboration service to expand flexibility to support evolving mission and functionality needs at a lower cost of ownership.</p> <p>FY2015 (Plan): Identify, research, and develop additional functionality for the replacement Defense Enterprise Collaboration service to ensure it stays relevant to the end-users mission needs.</p> <p>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.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>

Activity:  
• Enterprise Service Availability

Operational testing of modernized services or updated technologies into existing services validate that the validated customer requirement of  $\geq .997$  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:

FY2014 (Results): The portfolio of enterprise services met the threshold of .997 availability.

FY2015 (Plan): 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.

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.

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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	MIPR	MIT (CTO) : Hanscom Air Force Base, MA	0.821	-		-		-		-		-	Continuing	Continuing	0.871
Product Development 2	C/Variou	TBD : TBD	0.673	0.285	Jan 2014	0.285	Jan 2015	0.077	Jan 2016	-		0.077	Continuing	Continuing	2.586
Product Development 3	C/Variou	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	2.589	0.526	Dec 2013	0.526	Dec 2014	-		-		-	Continuing	Continuing	Continuing
Product Development 7	C/Variou	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/Variou	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	8.719	1.465	Nov 2013	1.574	Nov 2014	0.070	Nov 2015	-		0.070	Continuing	Continuing	17.132
Product Development 12	C/Variou	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	5.834	0.349	Jul 2014	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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 20	C/FP	NORTHROP GRUMMAN : Falls Church, VA	3.167	-		-		0.126	Apr 2016	-		0.126	Continuing	Continuing	4.167
<b>Subtotal</b>			85.279	2.625		3.034		0.273		-		0.273	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 1	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	11.569	0.634	Nov 2013	0.740	Nov 2014	0.171	Nov 2015	-		0.171	Continuing	Continuing	Continuing
Test & Evaluation 5	MIPR	TE : Fort Meade, MD	0.512	-		-		-		-		-	Continuing	Continuing	0.512
<b>Subtotal</b>			60.140	0.634		0.740		0.171		-		0.171	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services 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



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>
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<b>Management Services (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
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
<b>Subtotal</b>			96.214	-		-		-		-		-	-	-	96.214
<b>Project Cost Totals</b>			241.633	3.259		3.774		0.444		-		0.444	-	-	-

**Remarks**

<b>Remarks</b>	
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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>NCES</b>																												
SKIWeb Enhancements																												
Enterprise Collaboration Enhancements																												
Technology Innovation (Phase One)																												
Service Integration and Testing																												
User Access (Portal) Enhancements																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303170K / <i>Net-Centric Enterprise Services (NCES)</i>	<b>Project (Number/Name)</b> T57 / <i>Net-Centric Enterprise Services (NCES)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>NCES</b>				
SKIWeb Enhancements	1	2014	4	2015
Enterprise Collaboration Enhancements	1	2014	4	2020
Technology Innovation (Phase One)	1	2014	4	2014
Service Integration and Testing	1	2014	4	2020
User Access (Portal) Enhancements	1	2014	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	35.383	5.147	2.697	1.736	-	1.736	0.732	0.740	2.534	2.556	Continuing	Continuing
NS01: <i>Teleport Generation 1/2</i>	35.383	5.147	2.111	0.434	-	0.434	0.732	0.740	2.534	2.556	Continuing	Continuing
NS02: <i>Teleport Generation 3</i>	0.000	-	0.586	1.302	-	1.302	-	-	-	-	Continuing	Continuing

**MDAP/MAIS Code:**  
**Other 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 satellite communication capabilities at selected DoD satellite communications 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 provides 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

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>
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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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	5.147	2.697	2.498	-	2.498
Current President's Budget	5.147	2.697	1.736	-	1.736
Total Adjustments	-	-	-0.762	-	-0.762
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.762	-	-0.762

**Change Summary Explanation**

The decrease of -\$0.762 in FY 2016 is due to a planned realignment of funding between RDT&E and Procurement and a reduction in Joint Interoperability Certifications.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>				<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NS01: <i>Teleport Generation 1/2</i>	35.383	5.147	2.111	0.434	-	0.434	0.732	0.740	2.534	2.556	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Teleport Program	5.147	2.111	0.434
<b>FY 2014 Accomplishments:</b>			
Continued a technology refresh schedule and testing activities required to sustain Generations-1/2 fielded capabilities by implementing Joint Internet Protocol Modem (JIPM), iDirect 2.X, and MUOS to DISN capabilities at select teleport sites. Generation 3 funding supported preparation for the Operational Test Readiness Review (OTRR), operational testing, and operational validation for both Generation 3 Phase 1 and Phase 2. These events are required for Phase 1 and Phase 2 to enter the Full Deployment Decision (FDD) in FY 2015. Conducted developmental MUOS MVG (formerly MUOS to DSN) test and evaluation required to obtain KDP B in FY2015.			
<b>FY 2015 Plans:</b>			
Will continue documentation development in support of Generation 3 Phase 3 Milestone C decision scheduled for 4th quarter of FY 2015. Will continue research and developmental testing of gateway convergence and mesh technologies that will provide further flexibility and resiliency to the DoD Teleport /Gateway systems.			
The decrease of -\$3.036 from FY 2014 to FY 2015 is due to the planned realignment of funds from RDT&E to Procurement in order to support DoD Teleport tech refresh/insertion efforts and the separation of reporting for Teleport Generation 1/2 and Generation 3 beginning in FY 2015.			
<b>FY 2016 Plans:</b>			
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.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
The decrease of -\$1.677 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.147	2.111	0.434

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/ PE0303610K: <i>O&amp;M, DW</i>	28.370	13.975	13.979	-	13.979	14.121	14.285	14.285	-	Continuing	Continuing
• Procurement, DW/ PE0303610K: <i>Procurement, DW</i>	68.075	52.462	33.210	-	33.210	29.104	23.003	23.064	-	Continuing	Continuing
• Military Construction, DW: <i>PE0303610, MILCON</i>	-	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**

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:



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
<p>RDT&amp;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.</p> <p>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 2014, FY 2015 and FY 2016:</p> <p>Generation 1/2 Metric</p> <p>Test and Evaluation of IP Modem</p> <p>FY 2014 Target: 2 Acheived/2 Required  FY 2015: N/A  FY 2016: N/A</p> <p>Percentage of system changes resulting in interoperability certification</p> <p>FY 2014: 100%  FY 2015: 100%  FY 2016: 100%</p> <p>Number of G3P1 Operational Test Events</p> <p>FY 2014: N/A  FY 2015: N/A  FY 2016: 1 Planned/1 Required</p> <p>Number of G3P2 Operational Test Events</p> <p>FY 2014: N/A  FY 2015: N/A  FY 2016: 1 Planned/1 Required</p> <p>Number of completed program events to develop, test, implement, and field and transfer</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
FY 2014: 7 Acheived/8 Required FY 2015: 8 Planned/8 Required FY 2016: 8 Planned /8 Required		
MLGC to TPO Number of completed program events to develop, test, implement, and field and transfer		
FY 2014: 6 Acheived/6 Required FY 2015: 5 Planned/6 Required FY 2016: 6 Planned /6 Required		
MVG to TPO Number of completed program events to develop, test, implement, field and transfer		
FY 2014: 6 Completed/6 Required FY 2015: 6 Planned/6 Required FY 2016: 6 Planned /6 Required		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering Technical & Design Services (GDS)	Various	SSC Atlantic : Various	0.352	0.010	Feb 2014	0.539	Nov 2014	-		-		-	0.150	1.051	1.051
Engineering Technical & Design Services (MLGC)	Various	Various Locations : Various	0.743	0.010	May 2014	0.356	Nov 2014	-		-		-	0.410	1.519	Continuing
Engineering Services	C/CPFF	STF Ltd. : Fredericksburg, VA	0.297	-		-		-		-		-	-	0.297	0.297
Engineering Services	IA	SPAWAR Atlantic : Charleston, SC	0.075	-		-		-		-		-	-	0.075	0.075
Engineering Technical & Design Services (MVG)	IA	SSC Atlantic: Various : Various	0.320	-		0.244	Nov 2014	-		-		-	-	0.564	0.564
Engineering Technical & Design Services (Digital IF)	IA	CERDEC : TBD	0.904	-		-		-		-		-	-	0.904	0.904
<b>Subtotal</b>			2.691	0.020		1.139		-		-		-	0.560	4.410	-

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Office Support	C/FFP	BAH : McLean, VA	15.711	0.600	Feb 2014	0.670	Nov 2014	-		-		-	-	16.981	Continuing
Program Office Support	SS/CPFF	SAIC : Falls Church, VA	0.166	-		-		-		-		-	-	0.166	0.166
Program Office Support	C/CPAF	STF : Fredericksburg, VA	0.157	-		-		-		-		-	-	0.157	0.157
Program Office Support	IA	SPAWAR : Charleston, SC	1.221	-		-		-		-		-	-	1.221	1.221
Contractor Program Office Support	MIPR	SSC Atlantic, STF : Charleston, SC	1.050	0.050	Oct 2013	-		-		-		-	1.100	2.200	2.200
Program Office Support	IA	CERDEC : Various	0.071	-		-		-		-		-	-	0.071	0.710
Engineering Technical & Design Services	IA	PM DCATS : Ft. Belvoir, VA	0.352	-		-		-		-		-	-	0.352	0.352

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering Technical 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	-		-		-		-		-	-	1.432	1.432
Program Office Support	TBD	PLD : TBD	1.356	1.578	Jan 2014	-		-		-		-	1.578	4.512	4.512
Program Office Support Engineering	IA	JITC : Ft. HUA, AZ	0.371	-		-		-		-		-	-	0.371	0.371
Engineering Technical Support (Spectral Warrior)	IA	NRL : NRL	0.552	-		-		-		-		-	-	0.552	0.552
Engineering Technical Support (NSSEG)	Various	SSC Atlantic : Various	0.729	-		-		-		-		-	-	0.729	0.729
<b>Subtotal</b>			23.908	2.228		0.670		-		-		-	3.058	29.864	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Testing Support Services (Tech Refresh)	MIPR	JITC : Ft. Huachuca	8.784	2.899	Jan 2014	0.302		0.434	Nov 2015	-		0.434	3.558	15.977	Continuing
<b>Subtotal</b>			8.784	2.899		0.302		0.434		-		0.434	3.558	15.977	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract		
<b>Project Cost Totals</b>			35.383	5.147		2.111		0.434		-		0.434	7.176	50.251	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Teleport Program</b>	
Generation Three - Phase 3 FDD MUOS - Legacy	██████████
<b>MUOS to Legacy Gateway Component</b>	
Phase 2 Testing – First Article Testing	██
Phase 3 Operational Assessment – Northwest	██████
Ms C Decision	██
<b>MUOS to Defense Switched Network</b>	
KDP B	██
Installation	██
T&E (DT/OT)	██████
KDP C	██
IOC	██████
<b>Generic Discovery Server</b>	
KDP B	██
Installation	██
T&E (DT/OT)	██████
KDP C	██████
IOC	██████████

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Teleport Program</i></b>				
Generation Three - Phase 3 FDD MUOS - Legacy	4	2014	2	2015
<b><i>MUOS to Legacy Gateway Component</i></b>				
Phase 2 Testing – First Article Testing	2	2014	2	2014
Phase 3 Operational Assessment – Northwest	3	2014	4	2014
Ms C Decision	4	2014	4	2014
<b><i>MUOS to Defense Switched Network</i></b>				
KDP B	3	2014	3	2014
Installation	3	2014	3	2014
T&E (DT/OT)	3	2014	4	2014
KDP C	4	2014	4	2014
IOC	3	2014	4	2014
<b><i>Generic Discovery Server</i></b>				
KDP B	1	2014	1	2014
Installation	1	2014	1	2014
T&E (DT/OT)	1	2014	3	2014
KDP C	2	2014	3	2014
IOC	2	2014	4	2014

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS02 / <i>Teleport Generation 3</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
NS02: <i>Teleport Generation 3</i>	-	-	0.586	1.302	-	1.302	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**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 2014	FY 2015	FY 2016
<p><b>Title:</b> Teleport Program</p> <p><b>Description:</b> Generation 3: Funding will be used to execute Pre-Milestone C documentation preparation and acquisition activities for Generation 3 Phase 3.</p> <p><b>FY 2014 Accomplishments:</b> FY 2014 accomplishments for Teleport Gen 3 are included in the Teleport Gen 1/2 submission.</p> <p><b>FY 2015 Plans:</b> Will continue documentation development in support of Generation 3 Phase 3 Milestone C decision scheduled for 4th quarter of FY 2015.</p> <p>The increase of \$0.586 from FY 2014 to FY 2015 is due to the separation of reporting between Generation 3 acquisition reporting and non-Generation 3 reporting.</p> <p><b>FY 2016 Plans:</b> Will conduct operational testing and evaluations on the DoD Teleport Generation 3 Phase 3 implementation.</p> <p>The increase of \$0.716 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.</p>	-	0.586	1.302
<b>Accomplishments/Planned Programs Subtotals</b>	-	0.586	1.302

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS02 / <i>Teleport Generation 3</i>
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**C. Other Program Funding Summary (\$ in Millions)**

N/A

**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 2014, FY 2015 and FY 2016.



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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS02 / <i>Teleport Generation 3</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Office Support	C/FFP	BAH : McLean, VA	0.000	-		-		0.700	Nov 2014	-		0.700	-	0.700	Continuing
Testing Support Services	MIPR	JITC : Fort Huachuca	0.000	-		0.586		0.602		-		0.602	-	1.188	1.188
<b>Subtotal</b>			0.000	-		0.586		1.302		-		1.302	-	1.888	-
<b>Project Cost Totals</b>			0.000	-		0.586		1.302		-		1.302	-	1.888	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS02 / <i>Teleport Generation 3</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Teleport Generation 3</b>	
Generation Three - Phase 3 FDD MUOS	[REDACTED]

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS02 / <i>Teleport Generation 3</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Teleport Generation 3</i></b>				
Generation Three - Phase 3 FDD MUOS	4	2014	2	2015

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305103K / <i>Cybersecurity Initiative</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	7.357	3.644	3.234	2.976	-	2.976	2.921	3.050	3.238	3.268	Continuing	Continuing
XXX: <i>Cybersecurity Initiative</i>	7.357	3.644	3.234	2.976	-	2.976	2.921	3.050	3.238	3.268	Continuing	Continuing

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

Classified.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	3.658	3.234	3.114	-	3.114
Current President's Budget	3.644	3.234	2.976	-	2.976
Total Adjustments	-0.014	-	-0.138	-	-0.138
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.014	-	-0.138	-	-0.138

**Change Summary Explanation**

Classified.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Information Systems Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	Continuing	Continuing
NF1: <i>Distributed Common Ground/Surface Systems</i>	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	3.348	3.400	3.400	-	3.400
Current President's Budget	3.348	3.400	3.239	-	3.239
Total Adjustments	-	-	-0.161	-	-0.161
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.161	-	-0.161

**Change Summary Explanation**

The FY 2016 decrease of -\$0.161 is due to testing remotely rather than on-site following automation improvements.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>				<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NF1: <i>Distributed Common Ground/Surface Systems</i>	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Distributed Common Ground/Surface Systems (DCGS)	3.348	3.400	3.239
<b>FY 2014 Accomplishments:</b> Continued to support DDTE and provide enhanced functionality with expanding T&E capability, with a focus on increasingly automated evaluations of net-centric data and web services. Determined the extent DCGS Enterprise capabilities comply with established visible, accessible, understandable, and interoperable (VAUSI) standards that and make made them available and accessible in a “storefront” that enhances enhanced the sharing of net-centric data and services. Hosted or			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

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

	FY 2014	FY 2015	FY 2016
<p>provided access to a T&amp;E framework that provides provided validated, automated test tools for compliance testing, and will supported reciprocity with other T&amp;E organizations using accepted T&amp;E environments and tools to provide data for DCGS Enterprise maturity assessments. Enterprise T&amp;E support will continued to include Enterprise-level assessment events for the DCGS PoRs, National Agencies and Coalition Partners. Continued development and instrumentation for data collection and testing support on the 15 DCGS network domains and enclaves. These efforts will bewere measured by the EMM and documented in an annual DCGS T&amp;E FT Enterprise Assessment Report.</p> <p><b>FY 2015 Plans:</b> Will continue to support DDTE and provide enhanced functionality with expanding T&amp;E capability, with a focus on increasingly automated evaluations of net-centric data and web services. To further DCGS Enterprise capabilities, will establish procedures and conduct 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. Will establish and host initial "Testing as a Service" capabilities that will enable DCGS entities to test for standards compliance early and often during the development and acquisition processes. Enterprise T&amp;E support will continue to include Enterprise-level assessment events such as Enterprise Challenge and Unified Vision for the DCGS PoRs, National Agencies and Coalition Partners. Will continue development and instrumentation for data collection and testing support on the DCGS network domains and enclaves; the number of active DDTE nodes is projected to increase as mission-based testing starts to span other communities of interest such as command and control. Data collected by these assessment efforts will continue to be reflected in the EMM and documented in an annual DCGS Enterprise Assessment Report.</p> <p>The increase of +\$0.052 from FY 2014 to FY 2015 is for advancement of DCGS T&amp;E Focus Team (FT) Strategy and expansion of specific analytic software.</p> <p><b>FY 2016 Plans:</b> Continuing to support DDTE and to provide enhanced functionality with expanding T&amp;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&amp;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 Programs of Record (PoRs) participate in</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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 -\$0.161 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.348	3.400	3.239

**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 FY14, 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. This trend is expected to continue in FY15 and FY16. 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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Information Systems Agency												Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 7				PE 0305208K / Distributed Common Ground/Surface Systems				NF1 / Distributed Common Ground/Surface Systems							
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Contracts	Various	N/A : N/A	18.059	1.004	Oct 2013	1.000	Oct 2014	0.900	Oct 2015	-		0.900	Continuing	Continuing	Continuing
<b>Subtotal</b>			18.059	1.004		1.000		0.900		-		0.900	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Services 1	C/T&M	Interop : Ft. Hua, AZ	3.763	-		-		-		-		-	-	3.763	3.376
Engineering/Technical Services 2	C/T&M	NGMS : Ft. Hua, AZ	12.927	-		-		-		-		-	-	12.927	12.927
Engineering/Technical Services 3	C/T&M	NGIT : Ft. Hua, AZ	3.612	-		-		-		-		-	-	3.612	3.612
Engineering/Technical Services 4	C/Various	Various : Various	0.157	0.586	Oct 2013	0.600	Oct 2014	0.209	Oct 2015	-		0.209	Continuing	Continuing	Continuing
Engineering/Technical Services 5	C/CPFF	TASC, Inc : Andover, MA	1.705	1.758	Oct 2013	1.800	Oct 2014	2.130	Oct 2015	-		2.130	-	-	-
<b>Subtotal</b>			22.164	2.344		2.400		2.339		-		2.339	-	-	-
<b>Project Cost Totals</b>			40.223	3.348		3.400		3.239		-		3.239	-	-	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>DCGS</b>																												
DCGS T&E IPT																												
Connectivity to Other Testbeds & Test Event Conduct																												
DDTE Operation and Maintenance Support																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208K / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> NF1 / <i>Distributed Common Ground/Surface Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>DCGS</b>				
DCGS T&E IPT	1	2014	4	2020
Connectivity to Other Testbeds & Test Event Conduct	1	2014	4	2020
DDTE Operation and Maintenance Support	1	2014	4	2020

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Logistics Agency**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

21 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Se
36	0603264S	Agile Transportation for the 21st Century (AT21) - Theater Capability	03	3,754	2,544		2,544	2,679		2,679	U
52	0603712S	Generic Logistics R&D Technology Demonstrations	03	16,531	21,331		21,331	16,543		16,543	U
53	0603713S	Deployment and Distribution Enterprise Technology	03	30,009	29,683		29,683	29,888		29,888	U
55	0603720S	Microelectronics Technology Development and Support	03	80,717	82,700		82,700	79,037		79,037	U
		Advanced Technology Development		131,011	136,258		136,258	128,147		128,147	
126	0605070S	DOD Enterprise Systems Development and Demonstration	05	25,217	15,326		15,326	13,412		13,412	U
128	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	44,260	41,465		41,465	31,660		31,660	U
129	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05		10,135		10,135	13,085		13,085	U
		System Development And Demonstration		69,477	66,926		66,926	58,157		58,157	
157	0605502S	Small Business Innovative Research	06	5,829							U
		Management Support		5,829							
234	0708011S	Industrial Preparedness	07	21,678	22,366		22,366	24,605		24,605	U
235	0708012S	Logistics Support Activities	07	5,482	1,574		1,574	1,770		1,770	U
		Operational System Development		27,160	23,940		23,940	26,375		26,375	
		Total Research, Development, Test & Eval, DW		233,477	227,124		227,124	212,679		212,679	

R-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 21, 2015 at 15:34:59

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***Budget Activity 05: System Development & Demonstration (SDD)***  
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## ACRONYM LISTING

USMIRS- USMEPCOM INTEGRATED RESOURCE MANAGEMENT SYSTEM  
2D - TWO DIMENSIONAL  
3D - THREE DIMENSIONAL  
AC - ADVANCED CONCEPT  
ACAT- ACQUISITION CATEGORY  
ACOI- ACCESSIONS COMMUNITY OF INTEREST  
ACOS- AUTONOMOUS TECHNOLOGIES FOR UNMANNED AIR SYSTEMS  
ACTD - ADVANCED CONCEPT TECHNOLOGY DEMONSTRATION  
ADMITT - ADVANCED DOMESTIC MASK INSPECTION TOOLS AND TECHNOLOGY  
ADS - ATLANTIC DIVING SUPPLY  
AED - ALTERNATE ENERGY DEVELOPMENT  
AESA- ACTIVE ELECTRONIC SCANNED ARRAY  
AFE - ALTERNATIVE FUEL ENGINE  
AFIT - AIR FORCE INSTITUTE OF TECHNOLOGY  
AFRL - AIR FORCE RESEARCH LAB  
AIDC - AUTOMATED INFORMATION AND DATA COLLECTION  
AIN - ALUMINUM NITRIDE  
AIT- AUTOMATED IDENTIFICATION TECHNOLOGY  
ALD - ATOMIC LAYER DEPOSITION  
ALEA – AIRBORNE LAW ENFORCEMENT ASSOCIATION  
AMCOM - ARMY MATERIAL COMMAND  
AMRAMM- ADVANCED MEDIUM RANGE AIR TO AIR MISSILE  
AMS - AEROSPACE MATERIAL SPECIFICATION  
ARC-AUTOMATED RECORDS CHECK  
ARMS - ADVANCED RECONFIGURABLE MANUFACTURING OF SEMICONDUCTORS  
AS- ACQUISITION STRATEGY  
ASIC - APPLICATION SPECIFIC INTEGRATED CIRCUIT  
AT21 - AGILE TRANSPORTATION FOR THE 21ST CENTURY  
ATD – ADVANCED TECHNOLOGY DEVELOPMENT  
ATSP3 - ADVANCED TECHNOLOGY SUPPORT PROGRAM III  
ATUAS – AUTONOMOUS TECHNOLOGIES FOR UNMANNED AIR SYSTEMS  
AV - ASSET VISIBILITY  
AWACS - AIRBORNE WARNING AND CONTROL STATION  
BAA - BROAD AGENCY ANNOUNCEMENT  
BAE-BRITISH AEROSPACE SYSTEMS  
BATTNET - BATTERY NETWORK  
BCA – BUSINESS CASE ANALYSIS  
BEA- BUSINESS ENTERPRISE ARCHITECTURE  
BEIS- BUSINESS ENTERPRISE INFORMATION SYSTEM  
BLI – BUDGET LINE ITEM  
BLT- BOND LINE THICKNESS  
BSCM - BEAM STEERING CONTROL MODULE  
BST - BARIUM STRONTIUM TITANATE  
BTA – BUSINESS TRANSFORMATION AGENCY  
C - CENTIGRADE  
C&T - CLOTHING AND TEXTILES  
C2 - COMMAND AND CONTROL  
CA – COOPERATIVE AGREEMENT  
CACI-CALIFORNIA ANALYSIS CENTER, INC  
CAD- COMPUTER AIDED DESIGN  
CAF- CENTRAL ADJUDICATION FACILITY  
CAGE - COMMERCIAL AND GOVERNMENT ENTITY CODE  
CANDID- COMPUTER ADAPTIVE NETWORK DEFENSE IN DEPTH  
CBCT - COOPER BASED CASTING TECHNOLOGY APPLICATIONS  
CCS - CARBON CAPTURE AND SEQUESTRATION  
CDCIE - CROSS DOMAIN COLLABORATIVE INFO ENVIRONMENT  
CDR – CRITICAL DESIGN REVIEW  
CDUM - CUSTOMER DRIVEN UNIFORM MANUFACTURING  
CG(X) - NEXT GENERATION CRUISER  
CIE - CLOTHING AND INDIVIDUAL EQUIPMENT  
CIF - CENTRAL ISSUE FACILITY  
CIW - COLLABORATIVE INFO WORKSPACE  
CMOS - COMPLEMENTARY METAL OXIDE SEMICONDUCTORS  
CMS - COALITION MOBILITY SYSTEM

CMS - CONGRESSIONALLY MANDATED STUDY  
 COCOM- COMBATANT COMMAND  
 COEX - COMMUNITY OF EXCHANGE  
 CONOPS - CONCEPT OF OPERATIONS  
 CONUS - CONTINENTAL UNITED STATES  
 COP - COMMON OPERATIONAL PICTURE  
 CORANET - COMBAT RATIONS NETWORK FOR TECHNOLOGY IMPLEMENTATION  
 COS - COMMERCIAL OFF THE SHELF  
 COTS- COMMERCIAL OFF THE SHELF  
 CMIS - COUNTER-NARCOTICS MANAGEMENT INFORMATION SYSTEMS  
 CMS – CONGRESSIONALLY MANDATED STUDIES  
 CPFF - COST PLUS FIXED-FREE  
 CPOF - COMMAND POST OF THE FUTURE  
 CRADA - COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT  
 CSL - CATALST SUPPORT LAYER  
 CWB - COLD WEATHER BIODIESEL  
 D2 - DEPLOYMENT AND DISTRIBUTION  
 DAI – DEFENSE AGENCIES INITIATIVE  
 DARPA – DEFENSE ADVANCED RESEARCH PROJECTS AGENCY  
 DBASE - DEFENSE BUSINESS SYSTEMS ACQUISITION STAFF  
 DC - DIRECT CURRENT  
 DCAS – DEFENSE CASH ACCOUNTABILITY  
 DCCM – DEFENSE CONTINUITY & CRISIS MANAGEMENT  
 DCD/DCW- DFAS CORPORATE DATABASE/DFAS CORPORATE WAREHOUSE  
 DCSC - DEFENSE SUPPLY CENTER COLUMBUS  
 DCSP - DEFENSE SUPPLY CENTER PHILADELPHIA  
 DCSR - DEFENSE SUPPLY CENTER RICHMOND  
 DDOC - DEPLOYMENT DISTRIBUTION OPERATIONS CENTER  
 DDR&E - DIRECTOR, DEFENSE RESEARCH & ENGINEERING  
 DDXX - DEPLOYABLE DISTRIBUTION CENTER  
 DEBS - DEFENSE BUSINESS ENTERPRISE SYSTEMS  
 DESC - DEFENSE ENERGY SUPPORT CENTER  
 DFAR- DEFENSE FINANCIAL MANAGEMENT REGULATION  
 DFAS- DEFENSE FINANCE AND ACCOUNTING SERVICES  
 DHS - DEPARTMENT OF HOMELAND SECURITY  
 DISA- DEFENSE INFORMATION SYSTEMS AGENCY  
 DISS- DEFENSE INFORMATION SYSTEM FOR SECURITY  
 DLA - DEFENSE LOGISTICS AGENCY  
 DLIR - DEFENSE LOGISTICS INFORMATION RESEARCH  
 DLIS - DEFENSE LOGISTICS INFORMATION SERVICE  
 DMA – DEFENSE MEDIA ACTIVITY  
 DMDC- DEFENSE MANPOWER DATA CENTER  
 DMEA - DEFENSE MICROELECTRONICS ACTIVITY  
 DMFC - DIRECT METHANOL FUEL CELL  
 DMLSS-W - DEFENSE MEDICAL LOGISTICS STANDARD SUPPORT BLANKET PURCHASE AGREEMENT  
 DMLT - DEFENSE MEDICAL LOGISTICS TRANSFORMATION  
 DMSMS - DIMINISHING MANUFACTURING SOURCE AND MATERIAL SHORTAGE  
 DoD - DEPARTMENT OF DEFENSE  
 DOD EMALL- DEPARTMENT OF DEFENSE ELECTRONIC MALL  
 DOE - DESIGN OF EXPERIMENT  
 DOJ – DEPARTMENT OF JUSTICE  
 DOORA- DLA OFFICE OF OPERATIONS RESEARCH AND RESOURCE ANALYSIS  
 DOP - DISTRIBUTION PROCESS OWNER  
 DORRA - DEFENSE LOGISTICS AGENCY OFFICE OF OPERATIONS RESEARCH AND RESOURCE ANALYSIS  
 DOTLMS PF- DOCTRINE ORGANIZATION TRAINING LEADERSHIP AND EDUCATION  
 DP - DYNAMIC PARTNERING  
 DPNM - DISTRIBUTION PROCESS NODAL MODEL  
 DPO- DISTRIBUTION PROCESS OWNER  
 DPSRC-DEFENSE PERSONNEL SECURITY RESEARCH CENTER  
 DR - DISASTER RELIEF  
 DRAS- DEFENSE RETIRED AND ANNUITANT PAY SYSTEM  
 DRMS - DEFENSE REUTILIZATION AND MARKETING SERVICE  
 DSS – DEFENSE SECURITY SERVICES  
 DTMO- DEFENSE TRAVEL MANAGEMENT OFFICE  
 DTS- DEFENSE TRAVEL SYSTEM  
 DUSD - DEPUTY UNDER SECRETARY OF DEFENSE  
 DVD- DIRECT VENDOR DELIVERY  
 EA- ECONOMIC ASSUMPTIONS  
 EA - EXECUTIVE AGENT  
 EBI – ENTERPRISE BUSINESS INTELLIGENCE

EBS- ENTERPRISE BUSINESS SOLUTIONN  
 EDA- ELECTRONIC DOCUMENT ACCESS  
 EDW- ENTERPRISE DATA WAREHOUSE  
 EFD – ENTERPRISE FUNDS DISTRIBUTION  
 EFT- ELECTRONIC FUNDS TRANSFER  
 EMALL - ELECTRONIC MALL  
 EMFST- ELECTRONICS AND MATERIALS FOR FLEXIBLE SENSORS AND TRANSPORTATION  
 EML - EXPEDITIONARY MEDICAL LOGISTICS  
 EO - ELECTRO-OPTIC  
 EPA - ENERGY POLICY ACT  
 ERP - ENERGY READINESS PROGRAM  
 ESA - ENGINEERING SUPPORT ACTIVITES  
 EUVL - EXTREME ULTRAVIOLET LITHOGRAPHY  
 FAD – FUNDING AUTHORIZATION DOCUMENT  
 FAME - FATTY ACID METHYL ESTER  
 FBAR - FILM BULK ACOUSTIC RESONATOR  
 FC - FUEL CELL  
 FCC - FAME CROSS CONTAMINATION  
 FDA - FOOD AND DRUG ADMINISTRATION  
 FDTPI- FIRST DESTINATION TRANSPORTATION 7 PACKAGING INITIATIVE  
 FFMIA - FEDERAL FINANCIAL MANAGEMENT IMPROVEMENT ACT  
 FFRDC- Federally Funded Research and Development Center  
 FIB - FOCUSED ION BEAM  
 FISCAM – FEDERAL INFORMATION SYSTEM CONTROL AUDIT MANUAL  
 FLIS - FEDERAL LOGISTICS INFORMATION SYSTEM  
 FMS - FOREIGN MILITARY SALES  
 FOB - FORWARD OPERATING BASE  
 FOC- FULL OPERATING CAPABILITY  
 FOS- FAMILY OF SYSTEMS  
 FPS- FINANCIAL PARTNER SYSTEM  
 FSG - FEDERATED SOFTWARE GROUP  
 FTE - FULL TIME EQUIVALENT  
 FWBT- FUNDS BALANCE WITH TREASURY  
 FYDP- FUTURE YEAR DEVELOPMENT PLAN  
 GA - GAP ANALYSIS  
 GaAs - GALLIUM ARSENIDE  
 GaN - GALLIUM NITRIDE  
 GAO – GOVERNMENT ACCOUNTABILITY OFFICE  
 GCCs- GEOGRAPHIC COMBATANT COMMANDERS  
 GDE - GAS DIFFUSION ELECTRODE  
 GFP - GOVERNMENT FURNISHED PROPERTY  
 GIDEP - GOVERNMENT INDUSTRY DATA EXCHANGE PROGRAM  
 GIS - GEOGRAPHIC INFORMATION SYSTEM  
 GITI - GLOBAL INFOTEK, INCORPORATED  
 GPS - GOLBAL POSITIONING SYSTEM  
 GSA- GENERAL SERVICES ADMINISTRATION  
 GSG- GOVERNMENT STEERING GROUP  
 GTAS – GOVERNMENT TREASURY ACCOUNT ADJUSTED TRIAL BALANCE  
 HA - HUMANITARIAN ASSISTANCE  
 HA/DR – HUMANITARIAN ASSISTANCE AND DISASTER RELIEF  
 HAVE- HUMANITARIAN ASSISTANCE/DISASTER REIF ASSET VISIBILITY EXPERIMNT  
 HPA - HIGH POWER AMPLIFIER  
 HRM- HUMAN RESOURCE MANAGEMENT  
 HSCDS- HIGH SPEED CONTAINER DELIVERY SYSTEM  
 HSIO- HIGH SPEED ION OPTICS  
 IACP – INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE  
 IBEX2- INDUSTRIAL BASE EXTENSION AND EXECUTION  
 IBM-INTERNATIONAL BUSINESS MACHINES  
 IC - INTEGRATED CIRCUITS  
 IC- INTEGRATED CIRCUITS  
 ICU-FST - IMPROVED COLLAPSIBLE URETHANE FUEL STORAGE TANKS  
 IDIQ - INDEFINITE DELIVERY INDEFINITE QUANTITY  
 IGT- INTER GOVERNMENTAL TRANSFER  
 InAlN - IDIUM ALUMINUM NITRIDE  
 InGaN - INDIUM GALLIUM NITRIDE  
 I/NGO – INTERNATIONAL/NON-GOVERNMENTAL ORGANIZATIONS  
 IP - INDUSTRIAL POLICY  
 IP- INTELLECTUAL PROPERTY  
 IP Man Tech - INDUSTRIAL PREPAREDNESS MANUFACTURING TECHNOLOGY  
 IPI- INFRASTRUCTURE AND PROCESS IMPROVEMENT

IPO- IVENTORY POLICY OPTIMIZATION  
IPV- PRODUCT SUPPORT VENDORMBE  
IR - INFARED  
ISO - INTERNATIONAL ORGANIZATION FOR STANDARDIZATION  
IT - INFORMATION TECHNOLOGY  
ITV - IN TRANSIT VISIBILITY  
IUID- ITEM UNIQUE IDENTIFIER  
JAIT - JOINT AUTOMATIC IDENTIFICATION TECHNOLOGY  
JCIDS - JOINT CAPABILITY INTEGRATED DEVELOPMENT SYSTEM  
JCTD - JOINT CAPABILITY TECHNOLOGY DEMONSTRATION  
JDDE - JOINT DEPLOYMENT AND DISTRIBUTION ENTERPRISE  
JDMTP - JOINT DEFENSE MANUFACTURING TECHNOLOGY PANEL  
JFAST – JOINT FOW ANALYSIS SYSTEM FOR TRANSPORTATION  
JFCOM - JOINT FORCES COMMAND  
JITC- JOINT INTEROPERABILITY TEST COMMAND  
JMIDS - JOINT MODULAR INTERMODAL DISTRIBUTION SYSTEM  
JMLFDC – JOINT MEDICAL LOGISTICS FUNCTIONAL DEVELOPMENT CENTER  
JP-8 - JET PROPULSION FUEL  
JPADS - JOINT PRECISION AIR DROP  
JPAS- JOINT PERSONNEL ADJUDICATION SYSTEM  
JRADS - JOINT RECOVERY AND DISTRIBUTION SYSTEM  
JTRS - JOINT TACTICAL RADIO SYSTEM  
JVS- JOINT VERIFICATION SYSTEM  
KIFC - KANSAS INTELLIGENCE FUSION CENTER  
KPP - KEY PERFORMANCE PARAMETERS  
L&MR - LOGISTICS & MATERIAL READINESS  
LAV - LIGHT ARMORED VEHICLE  
LEAs – LAW ENFORCEMENT AGENCIES  
LEEDS - LAW ENFORCEMENT EQUIPMENT DATABASE SYSTEM  
LESO – LAW ENFORCEMENT SUPPORT OFFICE  
LIA - LOGISTICS INFO AGENCY  
LIRC - LOGISTICS INFORMATION REVIEW CONCEPT  
LIRC- LOGISTICS INFORMATION REVIEW CONCEPT  
LMI - LOGISTICS MANAGEMENT INSTITUTE  
LOGR&D – LOGISTICS RESEARCH AND DEVELOPMENT TECHNOLOGY  
LRIP - LOW RATE INITIAL PRODUCTION  
LSA – LOGISTICS SUPPORT ACTIVITIES  
LUT- LIMITED USER TESTING  
MAE - MATERIAL ACQUISITION ELECTRONICS  
MAIS- MAJOR AUTOMATED INFORMATION SYSTEM  
MATS – MICROWAVE ASSISTED THERMAL STERILIZATION  
MATTS - MARINE ASSET TAGGING AND TRACKING SYSTEM  
MBE - MOLECULAR BEAM EPITAXY  
MBE- MODEL BASE ENTERPRISE  
MCCD - MARINE CORPS COMBAT DEVELOPMENT COMMAND  
MCM - MULTI CHIP MODULES  
MEA - MEMBRANE ELECTRODE ASSEMBLY  
MEMS - MICRO ELECTRO MECHANICAL SYSTEM  
MEP- MANUFACTURING TECHNOLOGY EXTENSION PARTNERSHIP  
MEPS- MILITARY ENTRANCE PROCESSING STATION  
MILSPEC - MILITARY SPECIFICATION  
MLG - MAIN LANDING GEAR  
MLL - MASK LESS LITHOGRAPHY  
MLN - MEDICAL LOGISTICS NETWORK  
mm - MILLIMETER  
MMIC - MONOLITHIC MICROWAVE INTEGRATED CIRCUITS  
MMPDS - METALLIC MATERIALS PROPERTIES DEVELOPMENT AND STANDARDIZATION  
MOA- MEMORANDUM OF AGREEMENT  
MOCVD - METAL ORGANIC CHEMICAL VAPOR DEPOSITION  
MOSA- MODULAR OPEN SYSTEM ARCHITECTURE  
MPO - METAL PROCESS OPTIMIZATION  
MRAM - MAGNETIC RANDOM ACCESS MEMORY  
MRE - MEALS READY TO EAT  
MRL - MANUFACTURING READINESS LEAVELS  
MRV- MOVEMENT REQUIREMENTS VISIBILITY  
MTBF - MEAN TIME BETWEEN FAILURE  
NAVSEA - NAVAL SEA SYSTEMS COMMAND  
NCSU- NORTH CAROLINA STATE UNIVERSITY  
NDAA - NATIONAL DEFENSE AUTHORIZATION ACT  
NDSU- NORTH DAKOTA STATE UNIVERSITY

NDWC – NATIONAL DISASTER WARNING CENTER  
 NFTD - NATIONAL FORGING TOOLING DATABASE  
 NII - NETCENTRIC INFRASTRUCTURE AND IMPLEMENTATION  
 NIL - NANO IMPRINT LITHOGRAPHY  
 NIST- NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
 NLG - NOSE LANDING GEAR  
 nm - NANOMETER  
 NoMaDD - NODE MANAGEMENT AND DEPLOYABLE DEPOT  
 NOR- NEGATIVE OPERATING RESULTS  
 NRL - NAVAL RESEARCH LAB  
 NRO-NATIONAL RECONNAISSANCE OFFICE  
 NSA - NATIONAL SECURITY AGENCY  
 NSN - NATIONAL STOCK NUMBER  
 NTOA – NATIONAL TACTICAL OFFICERS ASSOCIATION  
 O&M - OPERATION AND MAINTENANCE  
 OCA - OTHER CONGRESSIONAL ADDS  
 OCO - OVERSEAS CONTINGENCY OPERATIONS  
 ODUSD - OFFICE OF THE DEPUTY UNDERSECRETARY OF DEFENSE  
 OEO – OFFICE OF ECONOMIC ADJUSTMENT  
 ONR - OFFICE OF NAVAL RESEARCH  
 OPNAV - OPEARTIONAL NAVY (OFFICE OF THE CHIEF OF NAVAL OPERATIONS)  
 ORTA - OFFICE OF RESEARCH AND TECHNOLOGY APPLICATIONS  
 OUSD(AT&L) – OFFICE OF THE UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY, AND LOGISTICS)  
 PACOM - PACIFIC COMMAND  
 PAO - PUBILC AFFAIRS OFFICER  
 PBAS-FD DW – PBAS-FUNDS DISTRIBUTION DEFENSE WIDE  
 PDC – PACIFIC DIASTER CENTER  
 PDIT - PRODUCT DATA INTEGRATION TECHNOLOGIES  
 PDK - PORTABLE DEPLOYMENT KIT  
 PDR- PRELIMANARY DESIGN REVIEW  
 PDW - PROCUREMENT, DEFENSE WIDE  
 PKI- PUBLIC KEY INFRASTRUCTURE  
 PLT- PRODUCTION LEAD TIME  
 PM - PROGRAM MANAGER  
 PM/DS- PART MANAGEMENT/DATA SHARING  
 PMO - PROGRAM MANAGEMENT OFFICE  
 PPI - PLANNED POSITION INDICATION  
 PQDR- PRODUCT QUALITY DEFICIENCY REPORT  
 PR- PURCHASE REQUEST  
 PR- PURCHASE REQUEST  
 PrCB - PRINTED CIRCUIT BOARD  
 PROACT - PROCUREMENT READINESS OPTIMIZATION-ADVANCED CASTING TECHNOLOGY  
 PROFAST - PROCUREMENT READINESS OPTIMIZATION-FORGING ADVANCE SYSTEM TECHNOLOGY  
 Pt - PLATINUM  
 PTC- PRODUCT TEST CENTER  
 PV - PRIME VENDOR  
 QN - QUALITY NOTICE  
 R&D - RESEARCH AND DEVELOPMENT  
 R2Q - RP2 QUALIFICATION (ROCKET KEROSENE)  
 R3 - REUTILIZATION RISK REDUCTION  
 R12 - RELEASE 12  
 RDCIC - REGIONAL DEFENSE COMMAND INTEGRATION CENTER  
 RDT&E - RESEARCH, DEVELOPMENT, TEST & EVALUTATION  
 RF - RADIO FREQUENCY  
 RFID - RADIO FREQUENCY IDENTIFICATION DEVICE  
 RICE - REPORTS INTERFACE CONVERSION EXTENTIONS  
 RICEW – REPORTS, INTERFACES, CONVERSIONS, EXTENTIONS AND WORKFLOWS  
 RM - REFORMED METHANOL  
 ROI - RETURN ON INVESTMENT  
 SAM – SYSTEM FOR AWARD MANAGEMENT  
 SAPCO - SPECIAL ACCESS PROGRAMS COORDINATION OFFICE  
 SAR - SYNTHETIC APERTURE RADAR  
 SAW - SURFACE ACOUSTIC WAVE  
 SBIR - SMALL BUSINESS INNOVATIVE RESEARCH  
 SCM - SUPPY CHAIN MANAGEMENT  
 SDD – SYSTEM DEVELOPMENT & DEMONSTRATION  
 SDR - STRATEGIC DISTRIBUTION & REUTILIZATION  
 SDR - SUPPLY DISCREPANCY REPORT  
 SDVOSB - SERVICE DISABLED VETERAN OWNED BUSINESS  
 SFIS- STANDARD FINANCIAL INFORMATION STRUCTURE

SHS - SELF PROPAGATING HIGH TEMPERATURE SYNTHESIS  
SiC - SILICON CARBIDE  
SLPC - SINGLE LOAD PLANNING CAPABILITY  
SME - SUBJECT MATTER EXPERT  
SMS- SINGLE MOBILITY SYSTEM  
SMP – STRATEGIC MANAGEMENT PLAN  
SPP – STATE PARTNERSHIP PROGRAM  
SPRs- SOFTWARE PROBLEM REPORTS  
SPX- STOCK PLANNING SYSTEM  
SRD - SYSTEM REQUIREMENTS DOCUMENT  
SSC- SERVICE SUPPORT CONTRACT  
SSO - SINGLE SIGN ON  
STO - STOCK TRANSPORT ORDER  
STP - SHORT TERM PROJECT  
SWNT - SINGLE WALLED CARBON NANOTUBE  
T/R - TRANSMIT/RECEIVE  
TAG - THE ADJUGENT GENERAL  
TARDEC - THE UNITED STATES ARMY TANK AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER  
TAV - TOTAL ASSET VISIBILITY  
TDP - TECHNICAL DATA PACKAGE  
TEES (TAMU) - TEXAS ENGINEERING EXPERIMENT STATIONS (TEXAS A&M UNIVERSITY)  
TENTNET - TENT NETWORK FOR TECHNOLOGY IMPLEMENTATION  
TFBSO - TASK FORCE TO IMPROVE BUSINESS AND STABILITY OPERATIONS  
TMS- TRANSPORTATION MANAGEMENT SYSTEM  
TPFDD – TIME-PHASED FORCE DEPLOYMENT DATA  
TQ - TECHNICAL QUALITY  
TRL - TECHNOLOGY READINESS LEVEL  
TSA - THERMAL STABILITY ADDITIVES  
TTN - TRANSPORTATION TRACKING NUMBER  
TWMS - TIMEWISE MANAGEMENT SYSTEMS  
TWT - TRAVELING WAVE TUBES  
UAV - UNMANNED AERIAL VEHICLE  
UH – UNIVERSITY OF HAWAII  
UGR- UNITIZED GROUP RATIONS  
um - MICRO MILLIMETER  
URG - UNITIZED GROUP RATIONS  
US - UNITED STATES  
USA TACOM – UNITED STATES ARMY TACTICAL COMMAND  
USDA - UNITED STATES DEPARTMENT OF AGRICULTURE  
USD(P) – UNDER SECRETARY OF DEFENSE (POLICY)  
USMC - UNITED STATES MARINE CORPS  
USMEPCOM- UNITED STATES MILITARY ENTRANCE PROCESSING COMMAND  
USMIRS – USMEPCOM INTEGRATED RESOURCE SYSTEM  
USP - UNITED STATES PHARMACOPIA  
USSGL- UNITED STATES STANDARD GENERAL LEDGER  
USSOCOM- UNITED STATES SOUTHERN COMMAND  
USTRANSCOM - UNITED STATES TRANSPORTATION COMMAND  
VED - VIRTUAL ENTERPRISE DEVELOPMENT  
VHP - VEHICLE FUEL CELL AND HYDROGEN LOGISTICS PROGRAM  
VINS - VET BIZ INITIATIVE FOR NATIONAL SUSTAINMENT  
VIPS- VIRTUAL INTERACTIVE PROCESSING SYSTEM  
VR- VIRTUAL REALITY  
WAWF- WIDE AREA WORK FLOW  
WSS - WEAPON SYSTEM SUSTAINMENT  
XML - EXTENSABLE MARKUP LANGUAGE

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	<b>R-1 Program Element (Number/Name)</b> PE 0603264S / Agile Transportation for the 21st Century (AT21) Theater Capability
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	5.221	3.754	2.544	2.679	-	2.679	0.496	0.496	0.496	-	Continuing	Continuing
1: Agile Transportation for the 21st Century (AT21) Theater Capability	5.221	3.754	2.544	2.679	-	2.679	0.496	0.496	0.496	-	Continuing	Continuing

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

Through the Theater Enterprise Deployment and Distribution (TED2) analysis, the Geographic Combatant Commanders identified several gaps between United States Transportation Commands strategic lift processes and Geographic Combatant Commander's distribution processes. Highlighted is a lack of capability to (1.) manage transportation planning and execution processes for cargo and 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 and optimization tools, and development of additional deployment and distribution supporting technology, will provide the capability for combatant commanders to manage theater operations with improved visibility and control for those transportation movements originating from the port of debarkation and delivered to the point of need.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	3.865	7.575	7.781	-	7.781
Current President's Budget	3.754	2.544	2.679	-	2.679
Total Adjustments	-0.111	-5.031	-5.102	-	-5.102
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.111	-			
• Other Program Reduction	-	-5.031	-5.084	-	-5.084
• Economic Assumption	-	-	-0.018	-	-0.018

**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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603264S / Agile Transportation for the 21st Century (AT21) Theater Capability				<b>Project (Number/Name)</b> 1 / Agile Transportation for the 21st Century (AT21) Theater Capability			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: Agile Transportation for the 21st Century (AT21) Theater Capability	5.221	3.754	2.544	2.679	-	2.679	0.496	0.496	0.496	-	Continuing	Continuing

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

Through the Theater Enterprise Deployment and Distribution (TED2) analysis, the Geographic Combatant Commanders identified several gaps between United States Transportation Commands strategic lift processes and Geographic Combatant Commander's distribution processes. Highlighted is a lack of capability to (1.) manage transportation planning and execution processes for cargo and 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 and optimization tools, and development of additional deployment and distribution supporting technology, will provide the capability for combatant commanders to manage theater operations with improved visibility and control for those transportation movements originating from the port of debarkation and delivered to the point of need.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Agile Transportation for the 21st Century (AT21) Theater Capability	3.754	2.544	2.679
<b>Description:</b> 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 and transition of business processes between the strategic and theater segments, as well as improve theater deployment and distribution business processes and support. Theater business process analysis will identify opportunities for insertion of industry best practices and technology to improve the efficiency and effectiveness of managing theater deployment and distribution planning and execution. 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.			
<b>FY 2014 Accomplishments:</b> Continue End-to-End (E2E) supply chain integration to support analysis of deployment and distribution requirements in support of AT21 theater development efforts. Continue data architecture analysis/services work to support reengineered business processes to ensure the seamless transition of deployment and distribution information between strategic & theater operations. Prototyping, development and integration of Theater Transportation Planning Enablement (TTPE) optimization solutions (includes the modification, configuration and integration of Commercial Off-The-Shelf (COTS)/Government Off-The-Shelf (GOTS) tools into the Joint Deployment and Distribution Environment (JDDE). Provide an AT21 theater optimization tool that automates the Joint			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603264S / Agile Transportation for the 21st Century (AT21) Theater Capability	<b>Project (Number/Name)</b> 1 / Agile Transportation for the 21st Century (AT21) Theater Capability		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Operational Support Airlift Center (JOSAC) scheduling process and optimizes airlift mission schedules for operational support airlift requirements.  <b>FY 2015 Plans:</b> 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 E2E supply chain integration to support analysis of deployment and distribution requirements in support of AT21 theater development efforts. 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. TTPE capabilities to be spirally transitioned as respective Geographic CCMD requirements are addressed.  <b>FY 2016 Plans:</b> Complete data architecture analysis/services work to support reengineered business processes to ensure the seamless transition of deployment and distribution information between strategic & theater legs. TTPE capabilities to be spirally transitioned as respective Geographic CCMD requirements are addressed. Complete development of 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				
<b>Accomplishments/Planned Programs Subtotals</b>		3.754	2.544	2.679
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b> N/A				
<b>E. Performance Metrics</b> 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 planning and execution operations. >80% transition rate of proven technologies/capabilities.				

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / Logistics Research and Development Technology (Log R&D)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	66.275	16.531	21.331	16.543	-	16.543	16.949	15.989	16.289	16.625	Continuing	Continuing
1: Medical Logistics Network (MLN)	6.850	1.532	2.266	-	-	-	-	-	-	-	Continuing	Continuing
2: Weapon System Sustainment (WSS)	18.732	5.259	6.074	-	-	-	-	-	-	-	Continuing	Continuing
3: Supply Chain Management (SCM)	10.671	4.173	7.022	-	-	-	-	-	-	-	Continuing	Continuing
4: Strategic Distribution & Reutilization (SDR)	15.057	2.288	2.383	-	-	-	-	-	-	-	Continuing	Continuing
5: Energy Readiness Program (ERP)	9.340	1.395	1.743	-	-	-	-	-	-	-	Continuing	Continuing
6: Defense Logistics Information Research (DLIR)	5.625	1.884	1.843	-	-	-	-	-	-	-	Continuing	Continuing
7: Analytic and Decision Support (A&DS)	0.000	-	-	3.428	-	3.428	3.616	3.605	3.669	3.741	Continuing	Continuing
8: Logistics Processes (LP)	-	-	-	7.543	-	7.543	7.956	7.929	8.071	8.233	Continuing	Continuing
9: Innovative Products and Services for Customers (IPSC)	-	-	-	5.572	-	5.572	5.377	4.455	4.549	4.651	Continuing	Continuing

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

The Defense Logistics Agency is responsible for providing the Military Services, other Federal Agencies, along with the 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. DLA’s 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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>
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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) that will support DLA's efforts to achieve the improvements needed to maintain mission readiness and continue fiscal stewardship while supporting the Department's transition to peacetime operations.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	18.000	16.836	17.207	-	17.207
Current President's Budget	16.531	21.331	16.543	-	16.543
Total Adjustments	-1.469	4.495	-0.664	-	-0.664
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.951	-			
• SBIR/STTR Transfer	-0.518	-			
• Appropriated Bill Increase	-	4.500	-	-	-
• FFRDC	-	-0.005	-	-	-
• Program Adjustment	-	-	-0.664	-	-0.664

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project: 8: Logistics Processes (LP)**

Congressional Add: **\*\*\* PLEASE ENTER CONGRESSIONAL ADD TITLE \*\*\***

	FY 2014	FY 2015
	-	-
Congressional Add Subtotals for Project: 8	-	-
Congressional Add Totals for all Projects	-	-

**Change Summary Explanation**

The Medical On-line Business Analytics capability will be delayed depriving DLA of the ability to properly plan and monitor orders to critical medical customers. 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. In addition, emerging additive manufacturing technology will not be available for low volume parts. The Strategic Distribution and Reutilization reductions mean that DLA support to the COCOM's deployments will be more costly because they will not be able to access regional suppliers through the IBEX2 system. Reductions to the Energy readiness program mean cost increases to the Services for fuel because fewer alternative fuel additives will be available. Finally, the reductions to the Defense Logistics Information project means DLA will not be capable of taking advantage of major advancements in Computer Aided Design/Computer Aided Manufacturing.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Logistics Agency Date: February 2015

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	PE 0603712S / Logistics Research and Development Technology (Log R&D)

FY2016 – FY2020 Restructuring: In December 2013, the DLA Director called for changes to the R&D program that would allow greater flexibility to support the Agency’s mission. As a result, the R&D program is evolving from single supply chain efforts to a few overarching Strategic Focus Areas (SFAs) that will support its efforts to achieve the needed improvements in order to maintain mission readiness and fiscal stewardship as the Department continues transition to peacetime operations. The three Strategic Focus Areas are:

1. Analytic and Decision Support: 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.
2. Logistics Processes: 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.
3. Innovative Products and Services for Customers: R&D efforts undertaken to develop new products and services for DLA customers including helping to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels and emerging, out of cycle requirements that always occur and new products and services developed by DLA.

FY2016 – FY2020 Reprogramming to Industrial Preparedness – 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 MBE is important because much of the data currently developed during the design and production weapon system life cycle is lost and has to be recreated.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 1 / <i>Medical Logistics Network (MLN)</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1: <i>Medical Logistics Network (MLN)</i>	6.850	1.532	2.266	-	-	-	-	-	-	-	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 extension to other supply chains.

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

<b>Title:</b> Medical Logistics Network Accomplishments/Plans	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>FY 2014 Accomplishments:</b> Continued to deliver enhancements to extend the initial accomplishments, and the clinical standardization initiative will begin with its focus on medical/surgical product knowledge and process improvements. Investigated the extension of the processes and capabilities for fair and reasonable pricing to other supply classes such as Subsistence.</p> <p><b>FY 2015 Plans:</b> In FY2015 the On-Demand Business Analytics (ODBA) project and possibly the Cost &amp; Pricing project will be transitioning to sustainment. We will look to broaden the scope of Clinical Standardization to other classes of medical products such as medical equipment. Advancing Cold Chain Management (ACCM), funded and executed as multiple sub-projects, will continue into this year.</p> <p><b>FY 2016 Plans:</b> Efforts related to MLN have been moved to the Analytic and Decision Support (A&amp;DS) and Logistics Processes Strategic Focus Areas.</p>	1.532	2.266	-
<b>Accomplishments/Planned Programs Subtotals</b>	1.532	2.266	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 1 / <i>Medical Logistics Network (MLN)</i>

**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 – Eighty-seven percent of the MedSurg Prime Vendor Program’s Gen IV Requirements are 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). 3) Percentage alignment between Balanced Scorecard Transformation Initiatives and Enterprise Architecture - data to be determined as initiatives are further refined.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 2 / <i>Weapon System Sustainment (WSS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2: <i>Weapon System Sustainment (WSS)</i>	18.732	5.259	6.074	-	-	-	-	-	-	-	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Weapon System Sustainment Accomplishments/Plans	5.259	6.074	-
<p><b>FY 2014 Accomplishments:</b>                      Planning Process Improvements: Customer Collaboration and Supplier Initiated Orders projects were successfully completed and transitioned. Phase 1 of the Exchange Sale of Economic Retention Stock (ESERS) project was successfully complete by selling a sample of NIINs through the GSA. Financial and Inventory Simulation (FINISIM) upgrades requested by DLA were successfully completed, and efforts to transition FINISIM through the J6 Front Door process were initiated by J34 and likely will continue in FY 2015. Some enhancements to Peak/Next Gen requested by DLA were completed, and others initiated which will be completed in FY 2015. An assessment of the Returns process was initiated and scheduled for completion in early FY 2015. Several Challenges from the Planning community were received, and efforts were begun to structure projects based on them.</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> <i>2 / Weapon System Sustainment (WSS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Technical/Quality Process Improvements: Completed an analysis of the potential benefits of changing the definition of Critical Application Items (CAI) to “critical in engineering design or manufacturing requirements” that showed the potential of saving millions of dollars and substantial Administrative Lead Time by avoiding unnecessary Engineering Support Activity reviews. Completed an analysis of new results-based metrics for the Technical/Quality process, and worked with the Technical/quality team to transition them. Several Challenges from the Technical/Quality community were received, and efforts were begun to structure projects based on them</p> <p>Procurement Process Improvements: The Matching Acquisition Strategies to Industry Capabilities (MASIC) project was successfully completed and transitioned to J7. WSS successfully completed an assessment of the ship recycling industry and DLA’s potential future role, and reported the results to the DLA Director as input to his decision whether or not to get back into the ship recycling business.</p> <p><b>FY 2015 Plans:</b>                      Planning Process Improvements: The ESERS, Returns, FINISIM and Peak/Next Gen projects that were active in FY 2014 will be completed and transition efforts conducted as appropriate. A Collaborative Planning with Military Service Industrial Maintenance Sites project will be initiated that promises to substantially improve the accuracy of demand forecasts and greatly improve support to warfighters. New projects will be initiated based on the Challenges in the Planning area that were received in FY 2014. In addition, collaborative efforts will be continued with the Planning Process team to develop additional new projects targeting FY 2016 awards.</p> <p>Technical/Quality Process Improvements: A follow-on project to the CAI effort completed in FY 2014 will be initiated to work with DLA experts to develop a set of recommendation for the joint DLA/Military Service Engineering Support Working Group to match engineering support / risk reduction with item criticality and procurement risk. New projects will be initiated based on the Challenges in the Technical/Quality area that were received in FY 2014. In addition, collaborative efforts will be continued with the Technical/Quality Process team to develop additional new projects targeting FY 2016 awards.</p> <p>Procurement Process Improvements: A Low Demand Parts project will be initiated to improve support to items seeing low demand by identifying and assessing approaches to group such parts and recommending methods to implement approaches to acquire parts in the groups, with a goal of reducing backorders while increasing participation by small businesses. A concerted effort will be made to identify additional projects for FY 2015 or FY 2016 starts by working with J7 personnel.</p> <p><b>FY 2016 Plans:</b></p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 2 / <i>Weapon System Sustainment (WSS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Funding and efforts related to Weapon Systems Sustainment have been moved to the Analytic and Decision Support and Logistics Processes Strategic Focus areas.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.259	6.074	-

**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.

**E. Performance Metrics**

The WSS program supports the Director's objectives of lower material costs, lower inventory levels and better customer support.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 3 / <i>Supply Chain Management (SCM)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3: <i>Supply Chain Management (SCM)</i>	10.671	4.173	7.022	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Supply Chain Management Accomplishments/Plans	4.173	7.022	-
<b>FY 2014 Accomplishments:</b> Invested in the technologies to implement advanced Supply Chain Management techniques into DLA's Supply Chains. DLA continued to work on reducing the Production Lead-time needed to produce critical DLA Land and Maritime items.			
<b>FY 2015 Plans:</b> 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.			
<b>FY 2016 Plans:</b> FY 2016 Plans: Funding and effort related to Supply Chain Management have been moved to the Innovative Products and Services for Customers Strategic Focus area.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.173	7.022	-

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 3 / <i>Supply Chain Management (SCM)</i>

**E. Performance Metrics**

SCM is measured on the ability to meet emerging needs that occur out of phase with the budget cycle.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 4 / <i>Strategic Distribution &amp; Reutilization (SDR)</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
4: <i>Strategic Distribution &amp; Reutilization (SDR)</i>	15.057	2.288	2.383	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Strategic Distribution & Reutilization (SDR) Accomplishments / Planned Program	2.288	2.383	-
<b>FY 2014 Accomplishments:</b> Completed transition of First-Destination Transportation and Packaging Initiative (FDTP) and Humanitarian Assistance/Disaster Relief (HA/DR) capabilities. Supported technology planning and insertions into disposition and distribution operations.			
<b>FY 2015 Plans:</b> Complete transition of IBex2 capabilities. Address inadequate legacy capabilities for worldwide distribution, disposition, reutilization, and retrograde operations via technology planning and insertion.			
<b>FY 2016 Plans:</b> Efforts related to the SDD Program have been moved to the Analytic and Decision Support (A&DS) and Logistics Processes Strategic Focus Areas (SFA).			
<b>Accomplishments/Planned Programs Subtotals</b>	2.288	2.383	-

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

N/A

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 4 / <i>Strategic Distribution &amp; Reutilization (SDR)</i>

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

SDD improves DLA distribution capability to respond to contingency and humanitarian relief operations.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 5 / <i>Energy Readiness Program (ERP)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
5: <i>Energy Readiness Program (ERP)</i>	9.340	1.395	1.743	-	-	-	-	-	-	-	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) (e.g. the study and development of fuel additives; studies to increase sources of supply), and Infrastructure & Process Improvement (IPI) (e.g. the development of analytical tools).

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Energy Readiness Program (ERP) Accomplishments/Plans	1.395	1.743	-
<b>FY 2014 Accomplishments:</b> Continued PMO support in program implementation and planning (\$0.318M PMO/CMS). Continued support of alternative/renewable energy solution study, test, and demonstration (\$0.570M AED). Continued support Class IIIB supply chain through product improvement to increase sources, improve quality, and reduce cost. (\$0.800M CPI). Continue to support infrastructure & process improvements (\$0.570M IPI).			
<b>FY 2015 Plans:</b> Continued PMO support in program implementation and planning (\$0.240M PMO/CMS). Continued support of alternative/renewable energy solution study, test, and demonstration (\$0.440M AED). Continued support Class IIIB supply chain through product improvement to increase sources, improve quality, and reduce cost. (\$0.620M CPI). Continue to support infrastructure & process improvements (\$0.440M IPI).			
<b>FY 2016 Plans:</b> 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 (\$0.365M PMO/CMS). Continued support of alternative/renewable energy solution study, test, and demonstration (\$0.656M AED). Continued support Class IIIB supply chain through product improvement to increase sources, improve quality, and reduce cost. (\$0.914M CPI). Continue to support infrastructure & process improvements (\$0.656M IPI).			
<b>Accomplishments/Planned Programs Subtotals</b>	1.395	1.743	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 5 / <i>Energy Readiness Program (ERP)</i>

**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.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 6 / <i>Defense Logistics Information Research (DLIR)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>6: Defense Logistics Information Research (DLIR)</i>	5.625	1.884	1.843	-	-	-	-	-	-	-	Continuing	Continuing

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

FY2016-FY2020 funding for this 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 Defense Logistics Agency's (DLA's) strategic vision. DLIR improves functional and business processes using the latest technologies available, which support the nation's warfighter. The technical areas of interest are: 1.) 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. 2.) Next Generation Automated Electronic Commerce and Sourcing. The Next Generation Automated Electronic Commerce and Sourcing technical area of interest focuses on employing the best of breed processes, practices, and technology to enable and/or streamline electronic commerce from the customer's point-of-need to point-of-satisfaction.

DLIR is working several short term projects in the first area of interest only. They 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Logistics Information Research (DLIR) Accomplishments/Plans	1.884	1.843	-
<b>FY 2014 Accomplishments:</b> Continued to identify ways for DLA to utilize the recommendations for using automated tools and processes for obtaining and exchanging technical data.			
<b>FY 2015 Plans:</b> Continue work on a 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.			
<b>FY 2016 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 6 / <i>Defense Logistics Information Research (DLIR)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Efforts related to DLIR have been moved to the Industry and Customer Collaboration Strategic Focus Area. P.E. 0708011S			
<b>Accomplishments/Planned Programs Subtotals</b>	1.884	1.843	-

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 7 / <i>Analytic and Decision Support (A&amp;DS)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>7: Analytic and Decision Support (A&amp;DS)</i>	-	-	-	3.428	-	3.428	3.616	3.605	3.669	3.741	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 and 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Analytic and Decision Support (A&DS)	-	-	3.428
<b>Description:</b> E-Mall Access for TENTNET: This project will make it possible for MilSpec Tent information to be available to all EMALL users. It will expand the number of tent and shelter products that have rich technical and performance information available on DOD EMALL. The project is structured to benefit the entire tent manufacturing community by making their product more visible and, more importantly, it will improve the quality of product information available to the warfighter. Plans include completing data collection and web design for three additional MILSPEC tents, complete modifications, and develop web-based training capability.			
Extension of Supply Chain Simulation project: This represents additional tasking for an existing project. The project will simulate the capability of the tent supply chain to surge production under varying conditions and requirements. We expect this project to produce an effective decision making tool for DLA's Industrial Capabilities Programs allowing program management to evaluate the effect of placing buffer stocks at various levels within the supply chain. Anticipate completion by Sept 2011.			
<b>FY 2014 Accomplishments:</b> New start in FY 16			
<b>FY 2015 Plans:</b> New start in FY 16			
<b>FY 2016 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Planning Process will focus on initial capabilities of Supply chain risk management and examine the potential benefits of alternative ownership strategies for inventory. FY 17: 3.616 FY 18: 3.605 FY 19: 3.669 FY 20:3.741</p> <p>Medical Supply Chain will transition the Fair &amp; Reasonable Evaluation (FRE) application, on the Cost &amp; Pricing charter, to sustainment. A new project for assembly data management could be undertaken this year. FY 17: 0.735 FY 18: 0.748 FY 19: 0.765 FY 20: 0.780</p> <p>Distribution and Disposition will examine alternatives to accurately account for outsourcing costs and benefits of emergency management planning. Additionally, Distribution and Disposition will support integrated analytic and decision support to enhance decision making processes and boost the strategic value of the procurement strategy. FY 17: 0. 945 FY 18: 0. 885 FY 19: 0. 906 FY 20: 0. 924</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	3.428

**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**

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.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 8 / <i>Logistics Processes (LP)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
8: <i>Logistics Processes (LP)</i>	-	-	-	7.543	-	7.543	7.956	7.929	8.071	8.233	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. Specifically, Cost of Quality processes, increasing use of DOD organic manufacturing capabilities, reduction of ESA reviews caused by Critical Item Reviews.

Selected process improvements cover processes outside the scope of the Technical/Quality (T/Q) Function including identifying improved methods for improving support for Low demand parts, accurate material receipt processes and eCommerce and catalog items as an alternative to stocking items.

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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Logistics Processes (LP)	-	-	7.543
<b>FY 2014 Accomplishments:</b> New Start in FY 16			
<b>FY 2015 Plans:</b> New Start in FY 16			
<b>FY 2016 Plans:</b> 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.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 8 / <i>Logistics Processes (LP)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Selected Process initiatives for FY 16 include expanding the use of supplier owned and managed inventory, exploring the use of mobile technology in logistics processes and adapting commercial practices to DLA internal operations. FY 17: 4.318 FY 18: 4.398 FY 19: 4.457 FY 20: 4.546				
Medical Processes could initiate a new project in real-time assembly data management to notify all Services that the items in their assemblages are obsolete and the assemblages must be modified. FY 17: 1.618 FY 18: 1.645 FY 19: 1.683 FY 20: 1.717				
The Distribution and Disposition initiative will leverage emerging distribution and disposal technologies and state of the art reverse logistics. FY 17: 2.080 FY 18: 1.947 FY 19: 1.993 FY 20: 2.033				
<b>Accomplishments/Planned Programs Subtotals</b>		-	-	7.543
		<b>FY 2014</b>	<b>FY 2015</b>	
<b>Congressional Add:</b> *** PLEASE ENTER CONGRESSIONAL ADD TITLE ***		-	-	
<b>FY 2014 Accomplishments:</b> [*** PLEASE ENTER CONGRESSIONAL ADD TEXT FOR PRIOR YEAR. ***]				
<b>Congressional Adds Subtotals</b>		-	-	
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				
<b>E. Performance Metrics</b>				
At least 30% of the completed projects will transition.				
OSD-C financial metrics (obligation and disbursement) will be achieved.				

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>				<b>Project (Number/Name)</b> 9 / <i>Innovative Products and Services for Customers (IPSC)</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9: <i>Innovative Products and Services for Customers (IPSC)</i>	-	-	-	5.572	-	5.572	5.377	4.455	4.549	4.651	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.

Included in the budget (\$1.250M) is the Print on Demand (POD) project for Mapping Enterprise Business System (MEBS) enhancements. DLA Headquarters/CC mandated the POD process to establish a web-based tool for DLA Document Services to receive, order and print maps on demand.

The enhancements improve system capabilities by implementing new and improved program data, user interface, and rules to integrate the POD business process. These enhancements will greatly improve map services to the warfighter while significantly reducing lead times and lowering overhead costs attributed to printing, storage and shipping. The POD Project will require an RMD to transfer funds to a new program element prior to the PB16 submission.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Innovative Products and Services for Customers (IPSC)	-	-	5.572
<b>FY 2014 Accomplishments:</b> New start in FY 16			
<b>FY 2015 Plans:</b> New start in FY 16			
<b>FY 2016 Plans:</b> 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 17: 5.377 FY 18: 4.455 FY 19: 4.549 FY 20: 4.651			
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			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603712S / <i>Logistics Research and Development Technology (Log R&amp;D)</i>	<b>Project (Number/Name)</b> 9 / <i>Innovative Products and Services for Customers (IPSC)</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. FY 17: 2.607 FY 18: 2.649 FY 19: 2.711 FY 20: 2.765			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	5.572

**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.



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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / Deployment and Distribution Enterprise Technology
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	86.456	30.009	29.683	29.888	-	29.888	25.652	25.904	28.332	29.404	Continuing	Continuing
1: Capabilities Based Logistics	7.342	-	-	-	-	-	-	-	-	-	Continuing	Continuing
2: Deployment and Distribution Velocity Management	6.869	-	-	-	-	-	-	-	-	-	Continuing	Continuing
3: Cross Domain Intuitive Planning	2.408	-	-	-	-	-	-	-	-	-	Continuing	Continuing
4: End-to-End Visibility	4.922	1.051	0.666	0.400	-	0.400	0.500	0.500	0.500	0.500	Continuing	Continuing
5: Distribution Planning and Forecasting	8.504	-	-	-	-	-	-	-	-	-	Continuing	Continuing
6: Joint Transportation Interface	14.917	-	-	-	-	-	-	-	-	-	Continuing	Continuing
7: Distribution Protection/Safety/Security	15.135	-	-	-	-	-	-	-	-	-	Continuing	Continuing
8: Command and Control/Optimization/Modeling and Simulation	17.294	18.430	18.780	16.492	-	16.492	14.070	14.222	15.696	16.346	Continuing	Continuing
9: Cyber	0.481	3.209	2.986	5.436	-	5.436	4.878	4.916	5.283	5.445	Continuing	Continuing
10: Global Access	8.584	7.319	7.251	7.560	-	7.560	6.204	6.266	6.853	7.113	Continuing	Continuing

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

USTRANSCOM is tasked to provide globally integrated, agile deployment and distribution solutions and related enabling capabilities to support national security, force readiness and sustainability within an increasingly constrained defense budget. Unpredictable and 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 and invest in enabling capabilities that contribute to mission success and help ensure the viability of our capabilities and implementation of a relevant transportation strategy. Effective knowledge sharing, decision support and transparency across the joint logistics enterprise, facilitated by secure enterprise-wide visibility into logistical processes and the ability to effectively collaborate/operate in a contested cyberspace, is required to promote effective, efficient and responsive global management of force projection and sustainment resources.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	30.256	29.683	29.959	-	29.959
Current President's Budget	30.009	29.683	29.888	-	29.888
Total Adjustments	-0.247	-	-0.071	-	-0.071
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.247	-			
• Economic Assumption	-	-	-0.071	-	-0.071

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 1 / <i>Capabilities Based Logistics</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1: <i>Capabilities Based Logistics</i>	7.342	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 2014	FY 2015	FY 2016
<b>Title:</b> Capabilities Based Logistics	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 2 / <i>Deployment and Distribution Velocity Management</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>2: Deployment and Distribution Velocity Management</i>	6.869	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 2014	FY 2015	FY 2016
<b>Title:</b> Deployment and Distribution Velocity Management	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 3 / <i>Cross Domain Intuitive Planning</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3: <i>Cross Domain Intuitive Planning</i>	2.408	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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)**

<b>Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<b>Title:</b> Cross Domain Intuitive Planning	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>				<b>Project (Number/Name)</b> 4 / <i>End-to-End Visibility</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
4: <i>End-to-End Visibility</i>	4.922	1.051	0.666	0.400	-	0.400	0.500	0.500	0.500	0.500	Continuing	Continuing

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

Enhanced end-to-end visibility of all aspects of power projection and 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 and 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 and system architecture which will automate and 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. 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)**

<b>Title:</b> End-to-End Visibility	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>FY 2014 Accomplishments:</b> Continue process to determine parts failure/usage patterns and mission type/environment to initiate sustainment support actions. Complete effort to provide capability to read RFID tags from standoff distances thus increasing theater visibility coverage without increasing infrastructure. Complete integration of basic web mapping capabilities with high end analytical mapping services to properly authenticated users.	1.051	0.666	0.400
<b>FY 2015 Plans:</b> 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.			
<b>FY 2016 Plans:</b> 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.051	0.666	0.400

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 4 / <i>End-to-End Visibility</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> Project performance metrics are specific to each effort and include measures identified in the metric project plans. Project completions and 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 and enhance effectiveness and efficiency of DOD logistics/supply chain operations.		

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 5 / <i>Distribution Planning and Forecasting</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
5: <i>Distribution Planning and Forecasting</i>	8.504	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 2014	FY 2015	FY 2016
<b>Title:</b> Distribution Planning and Forecasting	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>				<b>Project (Number/Name)</b> 6 / <i>Joint Transportation Interface</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
6: <i>Joint Transportation Interface</i>	14.917	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Joint Transportation Interface	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 7 / <i>Distribution Protection/Safety/Security</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>7: Distribution Protection/Safety/Security</i>	15.135	-	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 2014	FY 2015	FY 2016
<b>Title:</b> Distribution Protection/Safety/Security	-	-	-
<b>FY 2014 Accomplishments:</b> *** PLEASE ENTER TEXT ***			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	-

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>				<b>Project (Number/Name)</b> 8 / <i>Command and Control/Optimization/Modeling and Simulation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
8: <i>Command and Control/Optimization/Modeling and Simulation</i>	17.294	18.430	18.780	16.492	-	16.492	14.070	14.222	15.696	16.346	Continuing	Continuing

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

Capabilities which improve deployment, distribution and supply chain decision-making/collaboration (planning stage to real-time execution and 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 and drilldown capability, and resilient C2 infrastructure capabilities. Current planning, forecasting and 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. Transportation information exchange across the DOD is inhibited by disparate systems, multiple data standards and insufficient interfaces. 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. 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)**

<b>Title:</b> Command and Control/Optimization/Modeling and Simulation	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
	18.430	18.780	16.492
<b>FY 2014 Accomplishments:</b>			
Begin to create 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 a browser-based tool to capture user feedback/expertise/learning preferences and domain knowledge over time. 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 the effort to develop the ability to effectively and efficiently schedule missions from all known sources of airlift requirements. Continue development and spiral transition of collaboration & situational awareness technologies to provide dynamic planning and course of action development/execution capabilities. 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 application of semantic technologies within the JDDE for data validation			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> <i>8 / Command and Control/Optimization/Modeling and Simulation</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>and correction. Complete effort to optimized surface transportation solutions satisfying customer requirements in a “capabilities-based” application environment.</p> <p><b>FY 2015 Plans:</b> Start effort to provide ability to rapidly develop, assess, adapt, and execute plans in a dynamic environment. Commence and complete effort to improve data quality and accessibility, information security improves accessibility, reliability, availability, integrity aspects of information assurance. 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. Complete 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 &amp; situational awareness technologies to provide dynamic planning and course of action development/execution capabilities. 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.</p> <p><b>FY 2016 Plans:</b> Commence development of information technology and data efforts that support roadmap strategy. Begin comprehensive account of strategies, optional implementations &amp; recommendations for enterprise-wide management of metadata. 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 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 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	18.430	18.780	16.492

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 8 / <i>Command and Control/Optimization/Modeling and Simulation</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0603264S: <i>Agile Transportation for the 21st Century (AT21)</i>	0.400	-	-	-	-	-	-	-	-	Continuing	Continuing

**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 and 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 and enhance effectiveness and efficiency of DOD logistics/supply chain operations.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 9 / <i>Cyber</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9: <i>Cyber</i>	0.481	3.209	2.986	5.436	-	5.436	4.878	4.916	5.283	5.445	Continuing	Continuing

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

USTRANSCOM requires mission assurance in a persuasive/dynamic cyber environment. Projects in this area address the following: procedures/technologies which improve cyber surveillance and control of networks across multiple domains; ability to continue critical network operations in contested unclassified and classified network environments; ability to differentiate between valid and unauthorized users; determine and quantify the trustworthiness of hardware/software systems; rapidly analyze & correlate data regarding malicious activities; select/evoke real-time defense actuators; automated reasoning capabilities that address data quality issues that are currently manual, difficult, and time consuming to resolve; and ability to rapidly return to a known/safe operating state.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Cyber	3.209	2.986	5.436
<b>FY 2014 Accomplishments:</b> 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, and choose and 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 cyper secure enclave.			
<b>FY 2015 Plans:</b> Begin effort to identify and tailor best business practices, process improvement, knowledge management, and technology transition to operationalize cyber security. 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, and choose and 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 cyper secure enclave.			
<b>FY 2016 Plans:</b> Start development of cyber efforts that support roadmap strategy. Commence 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 cyper 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, and choose and implement the response that best balances addressing the cyber threat while minimizing mission impact.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.209	2.986	5.436

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 9 / <i>Cyber</i>

**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 and 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 and enhance effectiveness and efficiency of DOD logistics/supply chain operations.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 10 / <i>Global Access</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
10: <i>Global Access</i>	8.584	7.319	7.251	7.560	-	7.560	6.204	6.266	6.853	7.113	Continuing	Continuing

**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/cargo management; materiel handling innovations; improved physical node access (includes aircraft all-weather visual systems); 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 2014	FY 2015	FY 2016
<b>Title:</b> Global Access	7.319	7.251	7.560
<p><b>FY 2014 Accomplishments:</b> Commence and complete effort to provide autonomous (manned, unmanned) vehicle/convoy operations. Commence and complete effort to study the viability of a motion compensation platform for loading/off-loading commercial container ships at sea. Collaborate with Natick Soldiers Center 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. Continue effort to remotely access and retrieve containers and vehicles at sea. Complete effort for a system that decontaminates large frame aircraft. Complete development of manned and unmanned technologies that deliver cargo/logistics/sustainment to the point of need (Autonomous Technologies for Unmanned Air Systems (ATUAS)) JCTD. Complete effort to investigate effects of chemical agents on aircraft materials and structures. Complete developing capability to safely air drop supplies directly on populated areas. Complete ship-to-shore causeways linkage system to support deployment/sustainment of the warfighter in austere locations and joint logistics over the shore. Complete effort that enables lower communication cost (via Wideband Global SATCOM) and flexible en route SATCOM options when Fixed Installed Satellite Antenna (FISA) is unavailable.</p> <p><b>FY 2015 Plans:</b> Development and integration of Large Aircraft Infrared Countermeasures (LAIRCM) Enhanced Situational Awareness (LESA) capability with LAIRCM and the Dynamic Retasking Capability display, and demonstrate the capability. 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. Continue 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</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603713S / <i>Deployment and Distribution Enterprise Technology</i>	<b>Project (Number/Name)</b> 10 / <i>Global Access</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>using. Access airship/hybrid airship viability through studies and limited technical or operational demonstrations. Complete effort to remotely access and retrieve containers and vehicles at sea.</p> <p><b>FY 2016 Plans:</b>                      Start development of a robust capability to rapidly repair degraded ports in strategic locations results in the capability to present adversaries with a more complex targeting problem while ensuring agile strategic logistics, namely the ability to discharge strategic sealift vessels. 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 effort to provide a 500-2,000 pound High Altitude Low Opening (HALO) Container Delivery System (CDS) as well as work on 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. Access 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 development and integration of Large Aircraft Infrared Countermeasures (LAIRCM) Enhanced Situational Awareness (LESA) capability with LAIRCM and the Dynamic Retasking Capability display, and demonstrate the capability. Complete 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	7.319	7.251	7.560

**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 and 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 and enhance effectiveness and efficiency of DOD logistics/supply chain operations.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	143.518	80.717	82.700	79.037	-	79.037	71.245	72.049	72.928	74.371	Continuing	Continuing
1: <i>Technology Development</i>	76.988	47.052	55.502	50.151	-	50.151	45.177	46.390	47.033	47.906	Continuing	Continuing
2: <i>Trusted Foundry</i>	66.530	33.665	27.198	28.886	-	28.886	26.068	25.659	25.895	26.465	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 increasing worldwide supply chain risks with threats to defense microelectronics. The threats include risks, such as, counterfeiting, Trojan horses, unreliability 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. In these cases, DMEA procures a license to produce technologies in-house 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 skills to ensure that the Department is provided with 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 often 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.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>
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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 not, only then does DMEA provide the necessary prototypes and low volume production. 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 that an industry partner’s 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	82.700	72.144	79.037	-	79.037
Current President's Budget	80.717	82.700	79.037	-	79.037
Total Adjustments	-1.983	10.556	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.556			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.983	-			

**Change Summary Explanation**

Congressional Adds: Appropriation increased from amount requested. (Bill HR 83, Report 113-59)

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>				<b>Project (Number/Name)</b> 1 / <i>Technology Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: <i>Technology Development</i>	76.988	47.052	55.502	50.151	-	50.151	45.177	46.390	47.033	47.906	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, the development of trusted field programmable gate arrays (FPGAs), and the extension 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/or are required to remain in service beyond planned replacements, 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 these systems to remain operational. As such, DMEA and its capability are considered a National Critical Asset.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Technology Development Accomplishments/Plans	47.052	55.502	50.151
<b>FY 2014 Accomplishments:</b> DMEA designed, developed, and demonstrated microelectronics concepts, advanced technologies, and applications to solve operational problems for hundreds of programs. DMEA applied advanced technologies to add performance enhancements			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 1 / <i>Technology Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p>in response to the newest asymmetric threats and to modernize aging weapon systems. In keeping with the rapid pace of microelectronics technology, DMEA started the process to extend its capability at smaller node sizes.</p> <p><b>FY 2015 Plans:</b> 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, adapting tools and processes to detect increasingly sophisticated counterfeit microelectronics to ensure a secure supply chain, and developing trusted field programmable gate arrays (FPGAs), all to meet quick turn solutions on which COCOMs and Special Operations can rely.</p> <p><b>FY 2016 Plans:</b> 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, adapting tools and processes to detect increasingly sophisticated counterfeit microelectronics to ensure a secure supply chain, and developing trusted field programmable gate arrays (FPGAs), all to meet quick turn solutions on which COCOMs and Special Operations can rely.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	47.052	55.502	50.151

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 1 / <i>Technology Development</i>

**E. Performance Metrics**

N/A

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>				<b>Project (Number/Name)</b> 2 / <i>Trusted Foundry</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2: <i>Trusted Foundry</i>	66.530	33.665	27.198	28.886	-	28.886	26.068	25.659	25.895	26.465	Continuing	Continuing

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

The Department and the National Security Agency (NSA) require uninterrupted access to state-of-the-art design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. Under DODI 5200.44, Application Specific Integrated Circuits (ASICs) in critical/essential systems must be procured from Trusted sources in order to avoid 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 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 and NSA 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 NSA Trusted Access Program Office has successfully contracted with commercial sources to satisfy their state-of-the-art semiconductor requirements. It is imperative for a wide range of technologies in ongoing and future Department/ and NSA 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Trusted Foundry	33.665	27.198	28.886
<b>FY 2014 Accomplishments:</b> Co-funded with the NSA a new contract to provide Trusted access to state-of-the-art microelectronics technologies for the needs of the Department and NSA. Continued the development of a capability for the inspection and analysis of application-specific integrated circuits (ASICs). Refined methods for improved efficiency, accuracy, and applicability to multiple processes. Enhanced the cadre of trusted suppliers for the critical trusted components and services needed for appropriate defense systems. Enhanced Trusted Microelectronics products to include key specialty processes requested by Department programs, such as high voltage, extreme environments, and embedded non-volatile memory. Enhanced trusted design activities to encompass new processing capabilities. Expanded a line of trusted catalog components that can be purchased by Defense contractors.			
<b>FY 2015 Plans:</b>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603720S / <i>Microelectronics Technology Development and Support (DMEA)</i>	<b>Project (Number/Name)</b> 2 / <i>Trusted Foundry</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>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. Enhance trusted design activities to encompass new processing capabilities. Expand a line of trusted catalog components, possibly including Field Programmable Gate Arrays (FPGAs), which could be purchased by Defense contractors. Continue activities that ensure the Department has Trusted Access to leading edge semiconductor technologies.</p> <p><b><i>FY 2016 Plans:</i></b> 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, possibly including FPGAs that can be purchased by Defense contractors. Continue activities that ensure the Department has Trusted Access to leading edge semiconductor technologies.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	33.665	27.198	28.886

**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 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	66.654	25.217	15.326	13.412	-	13.412	4.493	4.579	4.689	4.781	Continuing	Continuing
1: Business Enterprise Information Services (BEIS)	9.667	3.360	0.957	-	-	-	-	-	-	-	Continuing	Continuing
4: Defense Information System for Security (DISS)	44.746	7.512	9.958	9.529	-	9.529	4.250	4.333	4.437	4.525	Continuing	Continuing
5: Defense Travel System (DTS)	0.000	1.216	0.221	0.207	-	0.207	0.243	0.246	0.252	0.256	Continuing	Continuing
8: Defense Retired and Annuitant Pay System (DRAS)	6.781	8.229	-	-	-	-	-	-	-	-	Continuing	Continuing
9: Enterprise Funds Distribution (EFD)	5.460	4.900	4.190	3.676	-	3.676	-	-	-	-	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	25.217	15.326	13.501	-	13.501
Current President's Budget	25.217	15.326	13.412	-	13.412
Total Adjustments	-	-	-0.089	-	-0.089
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation	-	-	-0.089	-	-0.089

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration				<b>Project (Number/Name)</b> 1 / Business Enterprise Information Services (BEIS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: Business Enterprise Information Services (BEIS)	9.667	3.360	0.957	-	-	-	-	-	-	-	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Business Enterprise Information Services (BEIS)	3.360	0.957	-
<b>FY 2014 Accomplishments:</b>			
BEIS DDRS Financial Reporting Services:			
-In November 2013, BEIS DDRS deployed SFIS Compliant Budgetary Reporting for National Defense University (NDU) Enterprise Business Accountability System (EBAS), Washington Headquarters Services (WHS) EBAS, and Financial Accounting Management Information System (FAMIS) accounting systems.			
-In September 2014, the DDRS and DCAS system components of BEIS achieved Full Deployment to successfully complete BEIS Increment I.			
-DDRS transitioned back to the Defense Finance and Accounting Service (DFAS) for sustainment in September 2014, while the DCAS system component is slated to transition by end of FY15.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 1 / Business Enterprise Information Services (BEIS)		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>BEIS DCAS Cash Accountability Reporting Services:                      –BEIS DCAS implemented the final deployment of the PowerBuilder to Web (PB2WEB) software to the Defense Finance and Accounting Service (DFAS) in May 2014.</p> <p><b>FY 2015 Plans:</b>                      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.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		3.360	0.957	-
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
<p>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.</p>				
<b>E. Performance Metrics</b>				
N / A				

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 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

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 1 / Business Enterprise Information Services (BEIS)

FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Acquisition Milestones - Business Enterprise Information Services (BEIS)</b>	
Increment 1 - Full Deployment	

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

<b>Acquisition Milestones - Business Enterprise Information Services (BEIS)</b>	
Increment 1 - Full Deployment	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 1 / Business Enterprise Information Services (BEIS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Acquisition Milestones - Business Enterprise Information Services (BEIS)</b>				
Increment 1 - Full Deployment	3	2009	4	2014



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration				<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
4: Defense Information System for Security (DISS)	44.746	7.512	9.958	9.529	-	9.529	4.250	4.333	4.437	4.525	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Information System for Security (DISS)	7.512	9.958	9.529
<b>Description:</b> 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.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>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.</p> <p><b>FY 2014 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• Conducted initial analysis and development of the Enterprise Application Integration (EAI) layer.</li> <li>• Conducted End User Experience Evaluations using simulated DMDC Data Services to test and validate current JVS system and user requirements.</li> <li>• Initiated JVS procurement action.</li> <li>• Finalized requirements for HSPD-12 and Suitability Initial Capabilities.</li> <li>• Initiated development of CATS v4 functionality including human adjudication, reporting, and management capabilities.</li> <li>• Initiated development and test of the DMDC SDS and DISS Data Migration.</li> <li>• Provided support to Insider Threat and Continuous Evaluation communities.</li> <li>• Continued change management/communications outreach, risk management, and schedule management tasks.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>• Complete development of the CATS Service Desk application.</li> <li>• Continue development and testing of the JVS prototype.</li> <li>• Transition 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.</li> <li>• Develop and deploy DISS common portal enhancements.</li> <li>• Initiate Development of JVS Self-Service user module and JVS Service Desk application.</li> <li>• Complete interface development for ESB.</li> <li>• Complete DMDC Data Migration for DISS.</li> <li>• Initiate JVS integration with DMDC Enterprise Services.</li> <li>• Continue change management/communications outreach, risk management, and schedule management tasks.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• Complete development and testing of the JVS (DISS 2.0).</li> <li>• Complete integration of DISS with DMDC Enterprise Services.</li> <li>• Complete development of JVS Self-Service user module and JVS Service Desk application.</li> <li>• Define system capabilities for emerging Office of the Under Secretary of Defense, Intelligence requirements.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
• Continue change management/communications outreach, risk management, and schedule management tasks.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.512	9.958	9.529

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

N/A

**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 is scheduled for 2nd Quarter, Fiscal Year 2015.

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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DISS Product Development	C/FFP	TBD : TBD	-	-		-		3.569	Feb 2016	-		3.569	Continuing	Continuing	Continuing
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	Sep 2014	-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	C/FFP	iWorks Corporation, : Reston, VA	11.715	0.084	Sep 2014	-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Manpower Data Center (DMDC) GSA-Philadelphia : Philadelphia, PA	5.054	2.000	Apr 2014	3.631	Mar 2015	1.924	Mar 2016	-		1.924	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Manpower Data Center (DMDC) GSA-Philadelphia. : Philadelphia, PA	-	0.274	Sep 2014	-		-		-		-	Continuing	Continuing	Continuing
DISS Product Development	MIPR	Defense Intelligence Agency : N/A	-	0.999	Jan 2015	-		-		-		-	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		0.013	Mar 2015	-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			23.916	4.748		5.655		5.493		-		5.493	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)
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<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
DISS Support	C/FFP	iWorks Corporation : Reston, VA	-	0.310	Sep 2014	0.120	Feb 2015	-		-		-	Continuing	Continuing	Continuing
DISS Support	C/FFP	IMMIX Technology Inc. : McLean, VA	0.063	-		0.061	Jan 2015	0.051	Jan 2016	-		0.051	Continuing	Continuing	Continuing
DISS Support	C/FFP	Carahsoft Technology : Reston, VA	0.229	-		0.060	Dec 2014	0.060	Dec 2015	-		0.060	Continuing	Continuing	Continuing
DISS Support	C/FFP	Sterling Computer Corp : Dakota Dunes, SD	0.188	-		0.150	Jan 2015	0.150	Feb 2016	-		0.150	Continuing	Continuing	Continuing
DISS Support	C/FFP	Carahsoft Technology- : Reston, VA	-	-		0.150	Jan 2015	0.150	Jan 2016	-		0.150	Continuing	Continuing	Continuing
DISS Support	C/FFP	TBD : TBD	-	-		0.150	Feb 2015	0.100	Feb 2016	-		0.100	Continuing	Continuing	Continuing
DISS Support	MIPR	Defense Manpower Data Center (DMDC) GSA- San Francisco : San Francisco, CA	-	0.364	Jul 2014	-		-		-		-	Continuing	Continuing	Continuing
DISS Support	MIPR	Technology Applications Office : Ft. Detrick, MD	0.376	-		-		-		-		-	Continuing	Continuing	Continuing
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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
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	-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			6.687	0.674		0.711		0.511		-		0.511	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DISS Test and Evaluation	MIPR	Joint Interoperability Test Command (JITC) : Indian Head, MD	0.070	-		0.210	Mar 2015	-		-		-	Continuing	Continuing	Continuing
DISS Test and Evaluation	MIPR	Defense Manpower Data Center (DMDC), Seaside : Seaside, CA	4.118	2.079	Oct 2014	1.522	Mar 2015	1.925	Mar 2016	-		1.925	Continuing	Continuing	Continuing
DISS Test and Evaluation	MIPR	SPAWARSYSCEN : Charleston, SC	0.020	-		-		-		-		-	Continuing	Continuing	Continuing
SBIR Tax	SS/ Various	TBD : TBD	-	-		0.329	Sep 2015	-		-		-	-	-	-
<b>Subtotal</b>			4.208	2.079		2.061		1.925		-		1.925	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency													Date: February 2015		
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 5				PE 0605070S / DoD Enterprise Systems Development and Demonstration				4 / Defense Information System for Security (DISS)							
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DISS Management Services	Option/FFP	Celerity Government Solutions/Xcelerate : McLean, VA	-	-		1.531	Dec 2014	1.600	Dec 2015	-		1.600	Continuing	Continuing	Continuing
DISS Management Services	Various	Government Program Management Office : Alexandria, VA	1.435	0.011	Oct 2013	-		-		-		-	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
<b>Subtotal</b>			9.935	0.011		1.531		1.600		-		1.600	-	-	-
Project Cost Totals			44.746	7.512		9.958		9.529		-		9.529	-	-	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)

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

Defense Information System for Security (DISS)	[Redacted]																											
	[Redacted]																											



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 4 / Defense Information System for Security (DISS)

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Defense Information System for Security (DISS)	1	2014	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration				<b>Project (Number/Name)</b> 5 / Defense Travel System (DTS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
5: Defense Travel System (DTS)	-	1.216	0.221	0.207	-	0.207	0.243	0.246	0.252	0.256	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Travel System (DTS)	1.216	0.221	0.207
<b>FY 2014 Accomplishments:</b>			
-Continued "work-off" of development related Software Problem Reports (SPRs).			
-Financial Partner System (FPS) system changes			
-Defense Lodging and Preferred Lodging Contract Modification was completed.			
-Defense Lodging and Preferred Lodging Kick Off, and work has commenced.			
<b>FY 2015 Plans:</b>			
-Continue "work-off" of development related Software Problem Reports (SPRs).			
-Simplify User Interface/Usability Enhancements			
-User functionality enhancements based upon user community requirements			
-Address system changes if needed in support of DoD Audit Readiness objectives			
-Integrate 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			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 5 / Defense Travel System (DTS)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
-Implement 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			
<b><i>FY 2016 Plans:</i></b> -Continue "work-off" of development related Software Problem Reports (SPRs) -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			
<b>Accomplishments/Planned Programs Subtotals</b>	1.216	0.221	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

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 5 / Defense Travel System (DTS)
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
TBD	Allot	TBD : Alexandria, VA	0.000	1.216		0.221		0.207		-		0.207	Continuing	Continuing	-
<b>Subtotal</b>			0.000	1.216		0.221		0.207		-		0.207	-	-	-
<b>Project Cost Totals</b>			0.000	1.216		0.221		0.207		-		0.207	-	-	-

**Remarks**  
Funding needed for any new development required to keep the Defense Travel System operational and sustainable

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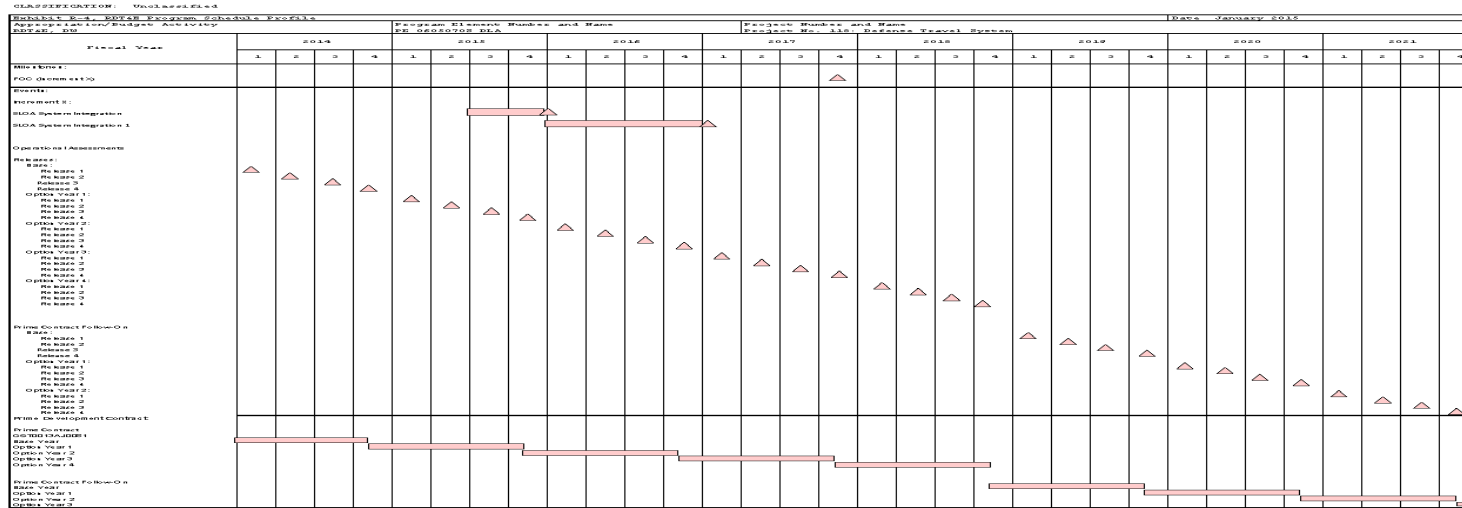
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Defense Logistics Agency**

**Date: February 2015**

**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)



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 5 / Defense Travel System (DTS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Increment X</b>				
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

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 5 / Defense Travel System (DTS)
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Events by Sub Project	Start		End	
	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

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**Exhibit R-5, RDT&E Termination Liability:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / <i>DoD Enterprise Systems Development and Demonstration</i>	<b>Project (Number/Name)</b> 5 / <i>Defense Travel System (DTS)</i>
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Cost (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
<b>Program Termination Liability</b>	0.000	-	-	-	-	-	-	-



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 8 / Defense Retired and Annuitant Pay System (DRAS)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
8: Defense Retired and Annuitant Pay System (DRAS)	6.781	8.229	-	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Defense Retired and Annuitant Pay System (DRAS)	8.229	-	-
<b>FY 2014 Accomplishments:</b> DRAS2 received a Material Development Decision (MDD) to allow the program to proceed with pre-Milestone B activities: -DRAS2 awarded an Indefinite Delivery Indefinite Quantity contract for the Integration of services. -DRAS2 awarded a Task Order for the requirements fit-gap analysis, data management activities, interface management, system design and Preliminary Design Review. --DRAS2 began development of all appropriate artifacts and documentation in alignment with business systems acquisition, this includes all required documents to proceed to Milestone B; Systems Engineering Plan, Configuration Management Plan, Risk Management Plan etc.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.229	-	-

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / <i>DoD Enterprise Systems Development and Demonstration</i>	<b>Project (Number/Name)</b> 8 / <i>Defense Retired and Annuitant Pay System (DRAS)</i>

**E. Performance Metrics**

N / A

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 8 / Defense Retired and Annuitant Pay System (DRAS)
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DRAS2 System Development and Integration	C/IDIQ	To be Determined : To be Determined	6.781	8.229	Sep 2014	-		-		-		-	-	-	-
<b>Subtotal</b>			6.781	8.229		-		-		-		-	-	-	-
<b>Project Cost Totals</b>			6.781	8.229		-		-		-		-	-	-	-

**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.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 8 / Defense Retired and Annuitant Pay System (DRAS)

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
"N/A"																												
"N/A"																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 8 / Defense Retired and Annuitant Pay System (DRAS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
"N/A"				
"N/A"	1	2014	4	2014

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration				<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9: Enterprise Funds Distribution (EFD)	5.460	4.900	4.190	3.676	-	3.676	-	-	-	-	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Enterprise Funds Distribution (EFD)	4.900	4.190	3.676
<b>Description:</b> EFD will distribute funds to the Military Departments and the Defense Agencies.			
<b>FY 2014 Accomplishments:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Modernization efforts for FY2014 focus on activities to continue the configuration of the COTS solution to support lower level funds distribution for all Defense Organizations receiving and distributing Defense-Wide funding. Activities planned for FY2014 include:</p> <ul style="list-style-type: none"> <li>• Add additional distribution levels within EFD to accommodate the Defense Organizations</li> <li>• Continue to configure the Budget Structure in EFD for the lower level funds distribution</li> <li>• Configuration of detailed reports</li> <li>• Delivery of a standard out-bound interface to Agency ERPs and accounting systems</li> <li>• Complete the Technology Refresh/Upgrade of the COTS Momentum software from Version 6.4.1 to Version 7.0.2</li> <li>• Configure USSGL to support deployment of the DoD Standard Line of Accounting</li> <li>• Configure drill-down capability for reports</li> <li>• Improve integration between system modules</li> <li>• Improve usability of the ad-hoc reporting</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>• System integration and regression testing for the new configuration of the budget structure in EFD for the lower level funds distribution process</li> <li>• Extensive training for the users at the Defense Organizations</li> <li>• Planned implementation of the first subset of Defense Organizations onto EFD</li> <li>• Conversion of Family Housing data into EFD</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>• Provide training to the end users who are responsible for the BRAC and non-general funds accounts.</li> <li>• Conduct transition activities in preparation for DFAS to sustain the system.</li> <li>• 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.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	4.900	4.190	3.676

**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.



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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Savantage Solutions	Option/FP	Savantage Solutions : Rockville, MD	5.460	4.900		4.190		3.676	Sep 2012	-		3.676	-	-	-
<b>Subtotal</b>			5.460	4.900		4.190		3.676		-		3.676	-	-	-

**Remarks**  
EFD Product Development – Technical Design and Development

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	5.460	4.900	4.190	3.676	-	3.676	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems <i>Development and Demonstration</i>	<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)

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

<b>"N/A"</b>	
No Sub Projects	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605070S / DoD Enterprise Systems Development and Demonstration	<b>Project (Number/Name)</b> 9 / Enterprise Funds Distribution (EFD)
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>"N/A"</b>				
No Sub Projects	1	2014	1	2014

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agency Initiatives (DAI) - Financial System
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	44.260	41.465	31.660	-	31.660	26.896	3.869	-	-	Continuing	Continuing
1: Defense Agency Initiatives (DAI) - Financial System	0.000	44.260	41.465	31.660	-	31.660	26.896	3.869	-	-	Continuing	Continuing

**MDAP/MAIS Code:**  
**Other 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	46.489	41.465	28.800	-	28.800
Current President's Budget	44.260	41.465	31.660	-	31.660
Total Adjustments	-2.229	-	2.860	-	2.860
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.229	-			
• Reprogramming from FY16 O&M to FY16/17 RDT&E	-	-	2.860	-	2.860

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agency Initiatives (DAI) - Financial System	<b>Project (Number/Name)</b> 1 / Defense Agency Initiatives (DAI) - Financial System
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1: Defense Agency Initiatives (DAI) - Financial System	-	44.260	41.465	31.660	-	31.660	26.896	3.869	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**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), version 11i (R11). DAI implemented an 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 Quadrennial Defense Review (QDR) Strategy 5, "Reform the business and support functions of the Defense enterprise". DAI is also aligned to the FY 2014/FY 2015 DOD Strategic Management Plan Business Goal 2: "Strengthen DoD financial management to respond to warfighter needs and sustain public confidence through auditable financial statements". The objective of the Defense Agencies Initiative is to achieve auditable, CFO Act compliant business environments for the Defense Agencies with accurate, timely, authoritative financial data.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>

The primary goal is to deploy a standardized system solution to improve overall financial management and comply with BEA, Standard Financial Information Structure (SFIS), 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; Acquire to Retire (real property lifecycle accounting only); Hire to Retire (Time and Labor reporting only); and Order to Cash. Future capabilities will support Defense Working Capital Fund accounting, Budget Formulation, Grants Financial Management, and Re-Sale Accounting (for Defense Commissary Agency (DeCA)) as well as a Contract Writing capability.

DAI is currently implemented at 11 Defense Agencies and the Office of the Under Secretary of Defense, Comptroller, (OUSD(C)) (Time and Labor only) and supporting over 9,200 users. In addition, since Oracle is phasing out maintenance of Oracle EBS, Release 11i, the program is required to migrate to EBS Release 12 (R12). 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, complete the R12 upgrade, initiate the annual Statement on Standards for Attestation Engagements (SSAE 16) assertion packages, and sustain the system.

The benefits of DAI are:

- Common business processes and data standards;
- Access to real-time financial data transactions;
- Significantly reduced data reconciliation requirements;
- Enhanced analysis and decision support capabilities; Standardized line of accounting with the use of SFIS; and
- Use of United States Standard General Ledger (USSGL) Chart of Accounts to resolve DoD material weaknesses and deficiencies.

The DAI PMO will provide the R12 Upgrade system integration services that include: acquisition management, project management; blueprinting; design, build, and unit test; developing required Reports, Interfaces, Conversions, Extensions, Forms and Workflows (RICEFW) objects; testing (information assurance, integration, functional, performance, conversion, security, 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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Agency Initiatives (DAI) - Financial System	44.260	41.465	31.660
<b>FY 2014 Accomplishments:</b>			
In FY14, the DAI PMO procured new user licenses and Technology Software Licenses. DAI was granted Authority to Operate (ATO) from the Designated Accrediting Authority. The PMO developed a Release 1 Workforce Preparation Strategy; R12 Analysis/ Planning and Reporting Strategy Definition; and a study of hardware hosting options. A plan for a Test & Development			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>

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

	FY 2014	FY 2015	FY 2016
<p>(T&amp;D) environment at DISA Defense Enterprise Computing Center (DECC) Mechanicsburg, PA was initiated. A Release 1 pre-deployment planning and Business Process Reengineering (BPR) was conducted, as well as, Release 1 Systems Engineering (SE) Technical Reviews. Five Release 1 simulation mocks with the agencies were conducted. The DAI PMO also conducted R12 Analysis/ Planning and Pre-Deployment planning at using/projected new Defense Agencies . Received DAI Release 3.0 Joint Interoperability Certification. Awarded an Acquisition Milestone B decision by Acquisition Decision Memorandum (ADM) April 18, 2014 and an Acquisition Program Baseline on July 7, 2014. Received Full Deployment Decision Criteria by ADM on 28 September, 2014. Successfully completed first independent audit, Statement of Standards for an Attestation Engagement (SSAE), No. 16 report, with a qualified opinion – only 3 Notices of Finding. Successfully completed an independent review of 1,026 applicable Federal Financial Management Improvement Act (FFMIA) requirements – 96% compliant. Successfully completed an independent Federal Information System Controls Audit Manual (FISCAM) Test of Design/Test of Effectiveness.</p> <p><b>FY 2015 Plans:</b> In FY2015, the PMO will:</p> <ul style="list-style-type: none"> <li>• Conduct Business Process Re-engineering.</li> <li>• Resolve critical software errors and critical statutory/regulatory enhancements that impact operations and incorporate changes identified during BPR and the Audit generated corrective action plans.</li> <li>• Conduct BEA version 12.0 compliance assessment.</li> <li>• Support the DIACAP process maintaining activity to support actions included in the DAA required POA&amp;M resulting in a decision to award an Authority to Operate.</li> <li>• Conduct testing to include: unit testing on developed items; monthly release testing that includes regression; annual release development testing that includes a SIT and UAT; Oracle R12 upgrade developmental testing including a SIT and UAT; as well as an operational test event in conjunction with DOT&amp;E following the annual release at using Defense Agencies.</li> <li>• Develop ability to send/receive the Department’s Purchase Request and Procurement Data Standards (PRDS/PDS).</li> <li>• Conduct contract renewal competitions and exercise options on existing contracts and monitor contractor performance and billing.</li> <li>• Migrate all existing DAI users and their data to the DAI Increment 2 DAI production baseline in 2Q FY 2015.</li> <li>• Complete migration of some of the October 2016 deploying Defense Agencies users to DAI Time and Labor.</li> <li>• Conduct October 2016 deploying Defense Agencies implementation activities including data conversion.</li> <li>• Develop, test and release Electronic Funds Distribution (EFD) to DAI production.</li> <li>• Support the Audit Readiness Office in developing service provider assertion packages supporting the SSAE 16 Service SOC 1 Report and resolve any NOFs pertaining to DAI.</li> <li>• Configure Grants Financial Management capability;</li> <li>• Conduct development lifecycle for internal controls automation.</li> <li>• Prepare to migrate and stabilize DAI user base during upgrade to Oracle R12.</li> </ul>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>

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

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>• Monitor the operations of the DISA DECCs at Ogden, UT (Production and T&amp;D to include training); Columbus, OH (COOP) and Mechanicsburg (T&amp;D). 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). The DAI PMO will use the DECC 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.</li> <li>• Maintain currency with existing Federal, DFAS and target Enterprise systems including the SAM web services, as SAM assumes the functionality of the Federal Integrated Acquisition Environment (IAE) systems.</li> <li>• Maintain the DAI master data leveraging feeds from the authoritative data sources.</li> <li>• Maintain a sufficient Information Assurance posture and support the DIACAP process maintaining activity to support actions included in the Designated Approval Authority required actions included in the POA&amp;M including maintaining currency of documentation in EMASS and the VMS. This includes maintaining the operational and application software currency and security patches.</li> <li>• Maintain the program's DODAF views in accordance with DLA guidance and in DLA systems.</li> <li>• Administer all of the databases: production; T&amp;D/training; and COOP.</li> <li>• Maintain the system configuration leveraging the best of DLA's Gold Standard for documentation.</li> <li>• Maintain currency with functional policy with regard to function and data standards.</li> <li>• 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.</li> <li>• Maintain and monitor user roles and responsibilities at the system level and guide using Agencies at the Component level.</li> <li>• Conduct an Acquisition In-Process Review (IPR) with the MDA.</li> <li>• Conduct Release 2 Systems Engineering (SE) Physical Configuration Audit (PCA) technical review for new Agency implementation activities</li> </ul> <p><b>FY 2016 Plans:</b> In FY16, the DAI PMO will procure required hardware, software and licenses for new Agency's personnel. Release 3 gaps will be defined and new RICFW objects will be finalized. Authority to Operate (ATO) and Interoperability Certification will be obtained. Migration of October 2015 Defense Agencies to DAI T&amp;L will be completed. The DAI PMO will develop Release 3 Budget Formulation and Direct Treasury Disbursing, work instructions and training materials and RICEFW objects. Pre-deployment planning and BPR, with new Agencies targeted for Release 3, will be conducted, as well as, new Agency implementation activities' preparation, Release 3 mocks with the Agencies and Release 4 SE technical reviews. Release 2 SE technical review will be conducted, as well as, deployment of Release 2 software at DISA DECCs and Release 2 T&amp;L to new Agencies.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	44.260	41.465	31.660

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>
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**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).  
  
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. When the upgrade is completed (January 2015), Increment 2 Release 1 will overwrite 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:

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>
<ul style="list-style-type: none"> <li>* Exchange contract, obligation, receipt and invoice information with external systems to support procurement processes. Objective-95%;</li> <li>* Receive Purchase Card information from external systems to manage government purchase cards (P-Cards). Objective-95%;</li> <li>* Exchange data across agencies to support intergovernmental Purchase Request (PR) processes. Objective-95%;</li> <li>* Receive travel related data from external systems to support travel financial accounting events. Objective-95%; and</li> <li>* Exchange miscellaneous payment information with trading partners. Objective-95%.</li> </ul> <p>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:</p> <ul style="list-style-type: none"> <li>* Exchange data with external systems to support management of customer orders. Objective-95%;</li> <li>* Exchange receivables data with external systems. Objective-95%; and</li> <li>* Manage exchange collections data with external systems. Objective-95%.</li> </ul> <p>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:</p> <ul style="list-style-type: none"> <li>* Receive asset creation information from external systems. Objective-95%;</li> <li>* Accumulate and transmit costs incurred for Capital Assets on Construction in Progress (CIP) and Work in Progress (WIP) projects. Objective-95%;</li> <li>* Generate and transmit property accounting information. Objective-95%;</li> <li>* Receive property maintenance data from external systems. Objective-95%; and</li> <li>* Receive disposal of assets information from external systems. Objective-95%.</li> </ul> <p>A.5. Cost Management (formerly Cost Accounting). DAI provides Cost Accounting and Allocation Capabilities DAI will measure the percentage of successful attempts to:</p> <ul style="list-style-type: none"> <li>* Receive Project Budgets from external systems. Objective-95%; and</li> <li>* Receive cost data to support cost collection processes. Objective-95%.</li> </ul> <p>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:</p> <ul style="list-style-type: none"> <li>* Exchange employee and timekeeping information with external systems. Objective-95%; and</li> <li>* Process and send payroll data to external systems. Objective-95%.</li> </ul> <p>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.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>
<p>- The DAI production application is hosted in a DISA DECC environment located in Ogden, UT and is managed by DAI Program Management Office</p> <p>2) Measures of Performance (MOPs) to measure network entrance and management performance:</p> <p>a) Network related (DISA) – as per DISA Catalog of Services</p> <ul style="list-style-type: none"> <li>-Interactive Availability - Portion of network/system controlled by DISA CSD available to the partner during the interactive window</li> <li>-Batch Throughput – Completion rate and delivery by specified time during batch window specified in SLA</li> </ul> <p>b) Database related (DAI Program Management Office)</p> <ul style="list-style-type: none"> <li>-System Availability</li> <li>-On Line user system response</li> </ul> <p>3) Network Management:</p> <ul style="list-style-type: none"> <li>-The Agency (user) being supported is responsible for the communications infrastructure necessary for leaving their location to connect users to the NIPRNet</li> <li>-DISA is responsible for communications on NIPRNet between the end user and the main DAI environment</li> <li>-DAI Program Management Office is responsible for activities occurring within the application and the Oracle Database</li> </ul> <p>4) Systems Management</p> <ul style="list-style-type: none"> <li>-NIPRNet and Infrastructure - Centralized within DISA CSD</li> <li>-DAI System – centralized within DAI Program Management Office</li> </ul> <p>5) Network Configuration Parameters – N/A (within the realm of DISA management) DAI will measure the percentage of success for:</p> <ul style="list-style-type: none"> <li>* Supports secure Internet/NIPRNET access to solution. Interactive Availability. Objective-98.5%;</li> <li>* Supports secure Internet/NIPRNET access to solution. Batch Throughput. Objective-95%;</li> <li>* Provides adequate system response and availability to support operations. System Availability. (Condition: 5000 users/hour) Objective-95%; and</li> <li>* Provides adequate system response and availability to support operations. On-line system response. (Condition: 5000 users/hour) Objective-95%.</li> </ul> <p>NR-KPP Att C - Effectively Exchange Information.</p> <p>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.</p> <p>Major Performers</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>
<p>DISA DECC Columbus, OH Test and Development</p> <p>DISA DECC Mechanicsburg, PA Test and Development</p> <p>DISA, Joint Interoperability Test Command (JITC) Indian Head, MD and Fort Huachuca, AZ Test Management and ITT Lead Services, Test tool, Information Exchange/Interfaces, DLA Transaction Services Instance and limited Operational Assessment Support.</p> <p>CACI Inc Federal Chantilly, VA Enterprise Solutions -Budget to Report, Procure to Pay, Order to Fill, Cost Accounting, Time &amp; Labor and Asset to Retire</p> <p>CACI ISS Inc Fairfax, VA Infrastructure Support</p> <p>Computer Sciences Corporation Falls Church, VA Enterprise Solutions for Customer Application Development</p> <p>International Business Machines Corporation Bethesda, MD Enterprise Solutions- Procure to Pay, Order to Cash and Budget to Report</p> <p>CACI Inc. Federal Chantilly, VA Enterprise Solutions - Acquire to Retire, Cost Accounting and Time and Labor</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / Defense Agency Initiatives (DAI) - Financial System	<b>Project (Number/Name)</b> 1 / Defense Agency Initiatives (DAI) - Financial System
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Enterprise Solutions Enhancements	Option/CPFF	CACI Inc Federal : Chantilly, VA	0.000	10.176	Apr 2014	5.737	Jan 2015	5.846	Jan 2016	-		5.846	Continuing	Continuing	-
Enterprise Solutions Implementation	Option/CPAF	CACI Inc Federal : Chantilly, VA	0.000	5.674	Apr 2014	5.939	Jul 2015	5.863	Jul 2016	-		5.863	Continuing	Continuing	-
Infrastructure Support	Option/FFP	CACI ISS Inc : Fairfax, VA	0.000	2.659	Mar 2014	0.057	Jan 2015	0.096	Jan 2016	-		0.096	Continuing	Continuing	-
Enterprise Solution CAD	C/CPFF	CSC : Falls Church, VA	0.000	1.275	Mar 2014	-		-		-		-	-	1.275	-
Enterprise Solutions P2P	C/FFP	IBM : Bethesda, MD	0.000	3.821	Mar 2014	8.040	Apr 2015	5.513	Apr 2016	-		5.513	Continuing	Continuing	-
Enterprise Solutions A2R	C/CPFF	CACI Inc Federal : Chantilly, VA	0.000	0.658	Mar 2014	6.415	Apr 2015	6.415	Apr 2016	-		6.415	Continuing	Continuing	-
Data Conversion Services	Option/FFP	IPI : Boerne, TX	0.000	0.814	May 2014	0.850	May 2015	0.866	May 2016	-		0.866	Continuing	Continuing	-
Global Model Development Support	TBD	TBD : TBD	0.000	0.933		7.448	Sep 2015	-		-		-	-	8.381	-
Oracle Software	PO	TBD : TBD	0.000	8.170	Sep 2014	-		-		-		-	-	8.170	-
CLM Licenses	TBD	TBD : TBD	0.000	3.342	Jan 2015	-		-		-		-	-	3.342	-
Jaws Professional Software	C/FFP	Immix Technology : McLean, VA	0.000	0.017	Sep 2014	-		-		-		-	-	0.017	-
Kurzweil 508 Software	C/FFP	Envision Tech INC DBA : Bethesda, MD	0.000	0.008	Sep 2014	-		-		-		-	-	0.008	-
Dragon Naturally Speaking Software	C/FFP	Red River Computer Co INC DBA : Claremont, NH	0.000	0.007	Sep 2014	-		-		-		-	-	0.007	-
<b>Subtotal</b>			0.000	37.554		34.486		24.599		-		24.599	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency												Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)						Project (Number/Name)					
0400 / 5				PE 0605080S / Defense Agency Initiatives (DAI) - Financial System						1 / Defense Agency Initiatives (DAI) - Financial System					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Development	MIPR	DISA : Pensacola, FL	0.000	3.537	Oct 2013	2.674	Oct 2014	2.674	Oct 2015	-		2.674	Continuing	Continuing	-
Independent Testing	MIPR	JITC : Indian Head, MD	0.000	3.169	Feb 2014	2.900	Apr 2015	2.955	Apr 2016	-		2.955	Continuing	Continuing	-
<b>Subtotal</b>			0.000	6.706		5.574		5.629		-		5.629	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	TBD	TBD : TBD	0.000	-		1.405	Oct 2014	1.432	Oct 2015	-		1.432	Continuing	Continuing	-
<b>Subtotal</b>			0.000	-		1.405		1.432		-		1.432	-	-	-
<b>Project Cost Totals</b>			0.000	44.260		41.465		31.660		-		31.660	-	-	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>

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

N/A	[REDACTED]																											
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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605080S / <i>Defense Agency Initiatives (DAI) - Financial System</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Agency Initiatives (DAI) - Financial System</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
N/A	1	2014	1	2014

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)	<b>R-1 Program Element (Number/Name)</b> PE 0605090S / Defense Retired and Annuitant Pay System 2 (DRAS)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	10.135	13.085	-	13.085	8.166	2.986	1.735	1.770	Continuing	Continuing
1: Defense Retired and Annuitant Pay System 2 (DRAS)	0.000	-	10.135	13.085	-	13.085	8.166	2.986	1.735	1.770	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	-	10.135	13.116	-	13.116
Current President's Budget	-	10.135	13.085	-	13.085
Total Adjustments	-	-	-0.031	-	-0.031
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation Adjustment	-	-	-0.031	-	-0.031

**Change Summary Explanation**

The DRAS 2 PE is a new program element in FY2015 therefore there are no significant program changes and the increase is due to the establishment of this PE.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605090S / Defense Retired and Annuitant Pay System 2 (DRAS)				<b>Project (Number/Name)</b> 1 / Defense Retired and Annuitant Pay System 2 (DRAS)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: Defense Retired and Annuitant Pay System 2 (DRAS)	-	-	10.135	13.085	-	13.085	8.166	2.986	1.735	1.770	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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Defense Retired and Annuitant Pay System (DRAS) 2	-	10.135	13.085
<b>FY 2015 Plans:</b> -DRAS2 will issue a system development task order for the DRAS2 product and detailed design activities. -DRAS2 will obtain the appropriate COTS software licensing and begin the establishment of hosting and transport services. -DRAS2 will begin initial Information Assurance activities and system architecture development.			
<b>FY 2016 Plans:</b> -DRAS2 will issue Task Order 3 to continue system development, testing, and Information Assurance activities. -DRAS2 will obtain additional COTS software licensing. -Implement transport services for DRAS2 system interfaces. -Establish testing environment at hosting facility.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	10.135	13.085

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

N/A

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605090S / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>

**D. Acquisition Strategy**

The DRAS2 program received Materiel Development Decision in March of 2014 where the Milestone Decision Authority authorized entry into the acquisition lifecycle at pre-Milestone B and release of Indefinite Delivery Indefinite Quantity (IDIQ) request for proposal for system design and development. This contract will be utilized to issue system development and integration task orders.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605090S / Defense Retired and Annuitant Pay System 2 (DRAS)	<b>Project (Number/Name)</b> 1 / Defense Retired and Annuitant Pay System 2 (DRAS)
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DRAS2 System Development and Integration	Option/ IDIQ	To be Determined : To be Determined	0.000	-		6.338	Sep 2015	4.082	Sep 2016	-		4.082	Continuing	Continuing	-
DRAS2 COTS License Purchase	Option/ TBD	To be Determined : To be Determined	0.000	-		2.550	Sep 2015	6.286	Sep 2016	-		6.286	Continuing	Continuing	-
DISA Hosting	MIPR	DISA : Mechanicsburg, PA	0.000	-		0.247	Mar 2015	0.717	Mar 2016	-		0.717	Continuing	Continuing	-
Transaction Services Interface Design	MIPR	DLA Transaction Services : Chambersburg, PA	0.000	-		1.000	Dec 2014	2.000	Dec 2015	-		2.000	Continuing	Continuing	-
<b>Subtotal</b>			0.000	-		10.135		13.085		-		13.085	-	-	-
<b>Project Cost Totals</b>			0.000	-		10.135		13.085		-		13.085	-	-	-

**Remarks**  
The System Development and Integration Contract is scheduled to award during September 2014.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 Defense Logistics Agency</b>			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605090S / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>	

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

"N/A"																												
"N/A"	[REDACTED]																											

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605090S / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>	<b>Project (Number/Name)</b> 1 / <i>Defense Retired and Annuitant Pay System 2 (DRAS)</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
"N/A"				
"N/A"	1	2014	4	2014



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>					<b>R-1 Program Element (Number/Name)</b>							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>					PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	5.976	5.829	-	-	-	-	-	-	-	-	Continuing	Continuing
1: <i>Small Business Innovative Research (SBIR)</i>	5.976	5.829	-	-	-	-	-	-	-	-	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 degree of technical risk where the technical feasibility of the proposed work has not been fully established. 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. Phase II selections will be strongly influenced on future market possibilities and commercialization potential demonstrated.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	-	-	-	-	-
Current President's Budget	5.829	-	-	-	-
Total Adjustments	5.829	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	5.829	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>			<b>Project (Number/Name)</b> 1 / <i>Small Business Innovative Research (SBIR)</i>				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: <i>Small Business Innovative Research (SBIR)</i>	5.976	5.829	-	-	-	-	-	-	-	-	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 three DLA Elements:

J3 R&D

- Advanced Battery Manufacturing (BATTNET):
- Advanced Castings and Forgings (PRO-Fast):
- Anti Counterfeiting:

J6 R&D

- TBD

DMEA

- TBD

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SBIR Accomplishments/Plans	5.829	-	-
<b>FY 2014 Accomplishments:</b>			
- Continued the execution of the active Phase I and Phase II SBIR Projects, and selected eight new Phase I proposals in FY 14. The SBIR program included the BATTNET topic in the DOD-wide 2014.2 Broad Agency Announcement. Three Phase I Options were executed in FY14, providing the opportunity to compete for Phase II awards in FY2015.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>	<b>Project (Number/Name)</b> 1 / <i>Small Business Innovative Research (SBIR)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>DLA SBIR:</p> <ul style="list-style-type: none"> <li>- To continue execution of all active Phase I and Phase II SBIR Projects. One or more new SBIR research topics will be developed with a focus on J62 requirements. Anticipate four Phase I awards per topic. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards.</li> <li>- Anticipate using the new DLA STTR topic supporting advanced anti-counterfeiting technologies in the DOD-wide 2015.2 STTR BAA. Plan to select four Phase I awards. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards.</li> </ul>			
<p>DMEA SBIR</p> <p>DMEA will complete testing and demonstration of hardware for a proof-of-concept quadrature mixer with integrated in-phase/quadrature-phase (I/Q) mismatch calibration. DMEA will complete testing and demonstration of hardware for a prototype high-speed, high-resolution x-ray system for inspection of integrated circuit cards. DMEA will complete the development of an integrated quantum receiver architecture and design and the analysis of requirements for a quantum cryptography single-photon detector integrated circuit. DMEA will simulate the performance of an Avalanche Photodiode quantum key receiver. DMEA will develop an architecture for differential read-out of balanced Single-Photon Avalanche Photodiode devices, with analysis of the expected performance of the integrated solution.:</p> <p><b>FY 2016 Plans:</b></p> <p>DLA SBIR:</p> <ul style="list-style-type: none"> <li>- To continue execution of all active Phase I and Phase II SBIR/STTR Projects. Anticipate using the DLA SBIR topic supporting BATTNET in the DOD-wide 2016.2 SBIR BAA. Anticipate the development of between one and three new SBIR research topic areas for new Phase I projects. Anticipate four Phase I awards per topic. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards.</li> <li>- To continue execution of all active Phase I and Phase II STTR Projects. Anticipate the development of one new STTR research topic areas for new Phase I projects. Anticipate four Phase I awards per topic and that the topic will be included in the DOD-wide 2016.A STTR BAA. Upon completion, all active Phase I projects have the opportunity to compete for Phase II awards.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502S / <i>Small Business Innovative Research (SBIR)</i>	<b>Project (Number/Name)</b> 1 / <i>Small Business Innovative Research (SBIR)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.829	-	-

**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. All new project execution work is solicited through the DoD SBIR Broad Agency Announcement (BAA). There are three separate solicitation periods throughout each year.

**E. Performance Metrics**

SBIR /STTR programs measure performance in two separate metrics

- First in terms of progression from Phase I to Phase II, to Phase III. Each successive progression is deemed a success. DLA Seeks to have a 50% progression from one Phase to the next as a minimum.
- Second in terms of the congressional definition of "commercialization," as defined by 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

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	67.792	21.678	22.366	24.605	-	24.605	24.865	25.295	25.987	26.507	Continuing	Continuing
1: <i>Combat Rations (CORANET)</i>	5.004	1.154	1.593	-	-	-	-	-	-	-	Continuing	Continuing
2: <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>	11.231	3.944	3.421	-	-	-	-	-	-	-	Continuing	Continuing
3: <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>	7.282	3.045	2.139	-	-	-	-	-	-	-	Continuing	Continuing
4: <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>	3.460	1.163	1.026	-	-	-	-	-	-	-	Continuing	Continuing
5: <i>Material Acquisition Electronics (MAE)</i>	36.343	10.501	12.185	-	-	-	-	-	-	-	Continuing	Continuing
6: <i>Battery Network (BATTNET)</i>	4.472	1.871	2.002	-	-	-	-	-	-	-	Continuing	Continuing
7: <i>Material Availability (MA)</i>	-	-	-	6.875	-	6.875	6.956	7.073	7.293	7.439	Continuing	Continuing
8: <i>High Quality Sources (HQS)</i>	-	-	-	12.373	-	12.373	12.482	12.707	13.011	13.271	Continuing	Continuing
9: <i>Industry and Customer Collaboration (ICC)</i>	-	-	-	5.357	-	5.357	5.427	5.515	5.683	5.797	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. Matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. Addresses production issues early by providing timely solutions. Reduces risk and positively impacts system affordability by providing solutions to manufacturing problems before they occur.

DLA ManTech includes Combat Rations Network for Technology Implementation (CORANET), Customer Driven Uniform Manufacturing (CDUM), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST),

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>
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Material Acquisition Electronics (MAE) and Battery Network (BATTNET). As well as, Other Congressional Add (OCA) programs that are Congressionally Directed efforts.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	22.291	22.366	22.729	-	22.729
Current President's Budget	21.678	22.366	24.605	-	24.605
Total Adjustments	-0.613	-	1.876	-	1.876
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.613	-			
• Program Adjustment	-	-	1.876	-	1.876

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1: <i>Combat Rations (CORANET)</i>	5.004	1.154	1.593	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Funding and technical work for the Combat Rations program has been reallocated to the Material Availability Strategic Focus Area. Modern battlefield requirements demand subsistence support that adequately provides for the needs of our military personnel in extremely intense and highly mobile combat situations that can be easily adapted to the civilian sector for humanitarian feeding. In FY 2014, DLA Troop Support Subsistence sold \$4 billion in subsistence goods and services to the Department of Defense and other customers. The Rations portion of this business was \$702M in FY 2014. The Combat, Humanitarian and Disaster Relief Rations R&D funding request is .002% of sales. The Combat Rations Program is focused on improving the manufacturing technologies related to the production and distribution of the combat rations that are at the forefront of these operations, including Meals Ready to Eat (MREs) as well as Unitized Group Rations (UGR). The objectives are increased readiness, improved quality, optimum sizing for transportation and storage; and better ration variety. CORANET research efforts also help control the cost of the combat rations. The CORANET 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 and transition improved technologies for Combat, Humanitarian and Disaster Relief Rations.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Combat Rations Accomplishments/Plans	1.154	1.593	-
<b>FY 2014 Accomplishments:</b> Completed Short Term Projects (STP) 3006 (MRE Assembly Improvement: Optimization Model for Packaging), STP 3008 (Improved Thermal Processing of Foods Sealed in Polymeric Trays, STP 3015 (Continuous Retort Processing, STP 3012 (Implementation Knurled Heat Seal Bar and Destructive Test Protocol, STP 3013 (Test Methodology Directional Tear), and STP 3014 (Measuring Tray Compressibility during Non-Destructive Seal Strength Test).			
<b>FY 2015 Plans:</b> Complete and begin implementation for STP 3016 using proven MATS processing and determine if other rations can benefit from the same pilot process as a second wave of MATS initiatives. Kick-off the new STPs for Optimizing Combat Ration Inspections (STP 4017) and MRE Supply Chain Process and Cost Evaluation (STP 4018) and MRE Shelf Life Monitoring Analysis (STP 5019). Refine the Inventory Optimization review white paper and convert to the Charter Format for approval. Revisit or redefine CORANET Workshop requirements in order to reconvene with DLA Troop Support active participation.			
<b>FY 2016 Plans:</b> Efforts related to Combat Rations have been moved to the Material Availability Strategic Focus Area.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.154	1.593	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

The Combat Rations 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.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Clemson University	C/CPFF	Clemson University : SC	0.160	0.020		0.020		-		-		-	-	-	-
Michigan State University	C/CPFF	Michigan State University : MI	0.020	0.020		0.020		-		-		-	-	-	-
Rutgers State University of New Jersey Division of Grants & Contract Accounting	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contract Accounting : NJ	2.000	0.800		0.400		-		-		-	-	-	-
SOPAKO, Incorporated	C/CPFF	SOPAKO, Incorporated : SC	0.020	0.020		0.020		-		-		-	-	-	-
University of Illinois	C/CPFF	University of Illinois : IL	0.400	0.020		0.020		-		-		-	-	-	-
University of Tennessee	C/CPFF	University of Tennessee : TN	0.600	0.020		0.020		-		-		-	-	-	-
Washington State University	C/CPFF	Washington State University : WA	0.400	0.020		0.020		-		-		-	-	-	-
Cadillac Products Incorporated	C/CPFF	Cadillac Products Incorporated : MI	0.200	0.020		0.020		-		-		-	-	-	-
Oregon Freeze Dry Incorporated	C/CPFF	Oregon Freeze Dry Incorporated : OR	0.020	0.020		0.020		-		-		-	-	-	-
Research and Development Associates	C/CPFF	Research and Development Associates : TX	0.020	0.020		0.020		-		-		-	-	-	-
The Wornick Company	C/CPFF	The Wornick Company : AL	0.400	0.034		0.300		-		-		-	-	-	-
Sterling Foods	C/CPFF	Sterling Foods : TX	0.300	0.020		0.020		-		-		-	-	-	-
Virginia Polytechnic Institute and State University	C/CPFF	Virginia Polytechnic Institute and State University : VA	0.020	0.020		0.020		-		-		-	-	-	-
Male Duck Inc.	C/FP	Male Duck Inc. : VA	0.100	0.100		0.100		-		-		-	-	-	-
Analytic Strategies, LLC	C/FP	Analytic Strategies, LLC : VA	0.344	-		0.100		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Defense Logistics Agency</b>	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>
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Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Alion Science and Technology Corporation	C/CPFF	Alion Science and Technology Corporation : IL	0.000	-		0.473		-		-		-	-	-	-
<b>Subtotal</b>			5.004	1.154		1.593		-		-		-	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			5.004	1.154		1.593		-		-		-	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MRE Supply Chain Process and Cost Evaluation	[Redacted]																											
Optimization Inspection Costs	[Redacted]																											
Shelf Life Monitoring Improvement Process	[Redacted]																											
Non Destructive Seal Tester for Bakery Products	[Redacted]																											
Emerging Products	[Redacted]																											
Tempature Evaluation Defense San Joaquin	[Redacted]																											
Chemical Resistance Packaging Condiments	[Redacted]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 1 / <i>Combat Rations (CORANET)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MRE Supply Chain Process and Cost Evaluation	1	2014	4	2015
Optimization Inspection Costs	1	2015	4	2015
Shelf Life Monitoring Improvement Process	1	2015	4	2015
Non Destructive Seal Tester for Bakery Products	1	2015	4	2015
Emerging Products	1	2015	4	2015
Tempature Evaluation Defense San Joaquin	1	2015	4	2015
Chemical Resistance Packaging Condiments	1	2015	4	2015

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				<b>Project (Number/Name)</b> <i>2 / Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>2: Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>	11.231	3.944	3.421	-	-	-	-	-	-	-	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 continuing CDUM projects have been transitioned into the Military Uniform System Technology (MUST) Program. The Military Uniform System Technology (MUST) Program was initiated in 4th quarter 2014. The strategic objective of the DLA Military Uniform System Technology (MUST) Program is to identify, adapt, and adopt technologies that can significantly reduce the lead-time from development to sustainment from years to months or weeks for the military uniforms and individual equipment. The Program focuses on quick-reaction and technologies that will transform the military uniform supply chain from a two-dimensional (2D), manual environment into a three-dimensional (3D), digital environment. The resulting knowledge based system will develop a neutral platform that will seamlessly communicate military uniform requirements to the military uniform industrial base.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Customer Driven Uniform Manufacturing Accomplishments/Plans	3.944	3.421	-
<b>FY 2014 Accomplishments:</b> The CDUM program successfully completed in October 2014 with the implementation of item level RFID technology in the military Recruit Induction Centers (RICS). These implementations resulted in increased inventory accuracy, ability to meet audit readiness, and significant time savings in in the Services uniform issuing operations.			
<b>FY 2015 Plans:</b> MUST Partner awards were made in late FY 2014. Four MUST STP awards have been made to date to do research on existing processes for the development of item requirements within the Services and DLA as well as research into the accessibility of these requirements by the Military Uniform Industrial Base.			
<b>FY 2016 Plans:</b> Once the as-is processes have been documented the MUST program will develop technologies to transform the military uniform supply chain into a three-dimensional (3D), digital environment, that will provide seamless communication of military requirements to the Military Uniform Industrial Base.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.944	3.421	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 2 / <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>

**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.

Improved Service/DLA collaboration on requirement changes and improved communication of those changes to the industrial base.

Completed projects will transition

OSD-C financial metrics (obligation and disbursement) will be achieved.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> <i>2 / Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CDUM 1	C/CPFF	Patricio Enterprises : VA	1.681	0.450	Mar 2014	-		-		-		-	-	-	-
CDUM1A	C/CPFF	Patricio Enterprises : VA	0.000	1.370	Feb 2015	-		-		-		-	-	-	-
CDUM 2	MIPR	Alion Science and Technology Corporation : VA	2.950	0.287	Mar 2014	-		-		-		-	-	-	-
MUST 1	C/CPFF	Advantech, Inc : MD	2.000	0.015	Aug 2014	0.952	Mar 2015	-		-		-	-	-	-
MUST 1A	C/CPFF	Advantech, Inc : MD	0.000	0.495	Sep 2014	0.056	Sep 2015	-		-		-	-	-	-
MUST 2	C/CPFF	Logistics Management Institute d/b/a LMI : VA	3.200	0.015	Aug 2014	1.164	Mar 2015	-		-		-	-	-	-
MUST 2A	C/CPFF	Logistics Management Institute d/b/a LMI : VA	0.000	0.500	Sep 2014	0.300	Sep 2015	-		-		-	-	-	-
MUST 2B	C/CPFF	Logistics Management Institute d/b/a LMI : VA	0.000	0.178	Mar 2014	-		-		-		-	-	-	-
MUST 3	C/CPFF	XSB Inc. : NY	1.400	0.015	Aug 2014	0.555	Mar 2015	-		-		-	-	-	-
MUST 3A	C/CPFF	XSB Inc. : NY	0.000	0.495	Sep 2014	0.300	Sep 2015	-		-		-	-	-	-
MUST 4	C/CPFF	ZWEAVE, INC : VA	0.000	0.015	Aug 2014	-		-		-		-	-	-	-
MUST 5	C/CPFF	Clemson University : SC	0.000	0.015	Aug 2014	0.094	May 2015	-		-		-	-	-	-
MUST 5A	C/CPFF	Clemson University : SC	0.000	0.094	Sep 2014	-		-		-		-	-	-	-
<b>Subtotal</b>			11.231	3.944		3.421		-		-		-	-	-	-





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 2 / <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CDUM 1	[REDACTED]																											
CDUM 2	[REDACTED]																											
MUST 1	[REDACTED]																											
MUST 2	[REDACTED]																											
MUST 3	[REDACTED]																											
MUST 4	[REDACTED]																											
MUST 5	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 2 / <i>Customer Driven Uniform Manufacturing (CDUM) (Previously called Apparel Research Network)</i>

Schedule Details

Events	Start		End	
	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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 3 / <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>3: Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>	7.282	3.045	2.139	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders. Cast parts are ~2% of all hardware National Stock Numbered parts but represent ~4% of all backorders, and when only the oldest backorders are considered up to 10% are castings. PRO-ACT develops methods and technologies to improve the supply of cast parts. We take a holistic view of the problem and attacks root causes inside DLA, at DLA's engineering support activity partners in the Services, and at DLA casting suppliers. This program includes tasks in developing new and improved metalcasting capabilities in the areas of inspection, materials, modeling, and design. Once developed these capabilities will support the foundry industry, where the technologies will be tested and implemented.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Procurement Readiness Optimization-Advanced Casting Technology Accomplishments/Plans	3.045	2.139	-
<b>FY 2014 Accomplishments:</b> Completed alpha version of our Integrated Casting Order Network (ICON) and tested its ability to send foundries/contractors active solicitations matched to tooling records. Also validated the improved stress model by comparing and achieving agreement between measured displacements and those displacements predicted by the model during solidification and cooling. The algorithms were integrated into MAGMA's stress model.			
<b>FY 2015 Plans:</b> Plan to complete our additive manufacturing project on ceramic stereolithography for gas turbine engine airfoils, blades & vanes			
<b>FY 2016 Plans:</b> Funding and efforts of the PRO-ACT program were transferred into the Material Availability Strategic Focus Area.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.045	2.139	-

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

N/A

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 3 / <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>

**D. Acquisition Strategy**

Competitive Broad Agency Announcement (BAA) is planned to be drafted this 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.

**E. Performance Metrics**

Reductions in lead-times and improvements in manufacturing processes 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.





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 3 / <i>Procurement Readiness Optimization-Advanced System Technology (PRO-ACT)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Tools for Streamlining Casting Supply Chains	1	2014	4	2015
Defense Casting For Supply Integration and Statistical Properties for MMPDS Standard	1	2014	4	2015
Modeling of Steel Casting Performance Dimensions and Distortion	1	2014	4	2015
Lube-Free Die Casting	1	2014	4	2015
Lightweight High Strength Cast Alloys Process Development	1	2014	4	2015
Additive Manufacturing of Airfoil Investment Casting Cores by Ceramic Stereolithography	1	2014	4	2014

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				<b>Project (Number/Name)</b> 4 / <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
4: <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>	3.460	1.163	1.026	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Weapon system spare parts managed by DLA that contain forgings are responsible for a disproportionate share of DLA's backorders. Forged parts are ~2% of National Stock Numbered parts but represent ~4% of all backorders, and when only the oldest backorders are considered up to 10% are forgings. This program develops methods and technologies to improve the supply of forged parts. This program takes a holistic view of the problem and attacks root causes inside DLA, at DLA's engineering support activity partners in the Services, and at DLA forging suppliers. The program has three thrusts: Business Enterprise Integration to improve supply support approaches; FORGE-IT to develop and improve technical problems; and R&D which develops new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time and 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Procurement Readiness Optimization-Forging Advanced System Technology Accomplishments/Plans	1.163	1.026	-
<b>FY 2014 Accomplishments:</b> Previous projects were completed in FY14 with Final Report received in October 2014. A new base contract was awarded on September 22, 2014 along with one task order contract for two projects. Additional projects will be awarded under new Task Order contracts in FY15. We conduct annual technical reviews in conjunction with an annual Joint Defense Manufacturing Technology Panel (JDMTP) Metals Subpanel review of all metal related ManTech projects.			
<b>FY 2015 Plans:</b> Planned accomplishments for FY15 include initiation of new projects.			
<b>FY 2016 Plans:</b> Funding and efforts of the PRO-FAST program were transferred into the Material Availability Strategic Focus Area.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.163	1.026	-

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

N/A



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 4 / <i>Procurement Readiness Optimization-Forging Advanced System Technology (PRO-FAST)</i>

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

**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.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / Industrial Preparedness Manufacturing Technology (IP ManTech)	<b>Project (Number/Name)</b> 4 / Procurement Readiness Optimization- Forging Advanced System Technology (PRO-FAST)

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Forging Process Improvement Using Intensive Quenching	[REDACTED]																											
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	[REDACTED]																											
Innovations in Repair of Forging Dies	[REDACTED]																											
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	[REDACTED]																											
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	[REDACTED]																											
Forged Fiber Reinforced Aluminum Engine Components	[REDACTED]																											
Improved Forging Acquisition Manufacture and Materials (IFAMM)	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 4 / <i>Procurement Readiness Optimization- Forging Advanced System Technology (PRO-FAST)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Forging Process Improvement Using Intensive Quenching	1	2014	4	2015
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	1	2014	4	2015
Innovations in Repair of Forging Dies	1	2014	4	2015
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	1	2014	4	2015
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	1	2014	4	2015
Forged Fiber Reinforced Aluminum Engine Components	1	2014	4	2015
Improved Forging Acquisition Manufacture and Materials (IFAMM)	1	2014	4	2015

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				<b>Project (Number/Name)</b> <i>5 / Material Acquisition Electronics (MAE)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>5: Material Acquisition Electronics (MAE)</i>	36.343	10.501	12.185	-	-	-	-	-	-	-	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Material Acquisition Electronics Accomplishments/Plans	10.501	12.185	-
<b>FY 2014 Accomplishments:</b> MAE has transitioned a Dielectrically Isolated TTL Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned Emulation capability will address several discontinued device families and will increase the potential Emulation production envelope by several hundred NSNs. MAE completed development of a flexible NMOS/PMOS Digital Microcircuit Emulation capability. MAE continued development of additional implementations including higher density Read-Only and Random-Access Memory, Advanced Emitter-Coupled Logic and Closed-Cell CMOS capabilities. MAE continued 350 and 250 nanometer Emulation fabrication process development, bringing new capabilities to the Customers and Agency.			
<b>FY 2015 Plans:</b> 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 transition flexible NMOS/PMOS Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. MAE will also 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 Advanced Schottky TTL and TTL-Compatible CMOS Emulation Capabilities. It will			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 5 / <i>Material Acquisition Electronics (MAE)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
continue prototyping 350 nanometer Emulation circuitry, bringing Emulation capability that re-establishes sources for additional NSNs.			
<b>FY 2016 Plans:</b> Funding and efforts associated with Material Acquisition electronics has been moved to the High Quality Sources SFA for FY 16.			
<b>Accomplishments/Planned Programs Subtotals</b>	10.501	12.185	-

**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.

At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Logistics Agency												<b>Date:</b> February 2015				
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				<b>Project (Number/Name)</b> 5 / <i>Material Acquisition Electronics (MAE)</i>								
<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>		<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>			
SRI International	C/CPFF	SRI International : CA	31.343	9.951		11.785		-		-		-	-	-	-	-
SPAWARSYSCEN San Diego	MIPR	SPAWARSYSCEN San Diego : CA	5.000	0.550		0.400		-		-		-	-	-	-	-
<b>Subtotal</b>			36.343	10.501		12.185		-		-		-	-	-	-	-
			<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>			36.343	10.501		12.185		-		-		-	-	-	-	
<b>Remarks</b>																

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> <i>5 / Material Acquisition Electronics (MAE)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dielectrically Isolated TTL	██████████																											
128 Kilobit RAM/ROM	██████████																											
0.8 Micron PMOS & NMOS	██████████																											
0.5 Micron Closed-cell CMOS	██████████																											
Advanced Emitter-Coupled Logic	██████████				██████████																							
0.35 CMOS Process Devel. I	██████████				██████████																							
Op Amp Process Devel. I	██████████				██████████																							
Advanced Schottky TTL					██████████																							
TTL Compatible CMOS					██████████																							
Process Capability Enhancement I					██████████																							
SPAWAR COTR	██████████				██████████																							



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 5 / <i>Material Acquisition Electronics (MAE)</i>

Schedule Details

Events	Start		End	
	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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 6 / <i>Battery Network (BATTNET)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
6: <i>Battery Network (BATTNET)</i>	4.472	1.871	2.002	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> BATTNET Accomplishments/Plans	1.871	2.002	-
<b>FY 2014 Accomplishments:</b> BATTNET developed the production capability at Ultralife and EaglePicher for high energy Li-CFx batteries that double the mission time for soldiers - awarded 2014 Defense Manufacturing Technology Achievement Award. BATTNET developed low-energy capable cells designed to transition to emerging lithium-ion batteries for Defense weapon systems. BATTNET initiated a new project to develop and transition production-scale capabilities in low cost, solvent-free electrode production.			
<b>FY 2015 Plans:</b> R&D will continue to be performed through identification and awards of new Short Term Projects (STP) with an expected duration of 18-24 months and an average funding of \$200K-\$500K per year. STP proposals are required to include a business case with specific metrics and transition plan for success. BATTNET will also pursue additional battery manufacturing advances from successful DLA SBIR projects.			
<b>FY 2016 Plans:</b> Funding and efforts of the BATTNET program were transferred into the Material Availability Strategic Focus Area.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.871	2.002	-

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

N/A

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 6 / <i>Battery Network (BATTNET)</i>

**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 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.

OSD-C financial metrics (obligation and disbursement) will be achieved.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 6 / <i>Battery Network (BATTNET)</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Alion Science and Technology Corporation	C/CPFF	Alion Science and Technology Corporation : IL	1.032	0.308		0.102		-		-		-	-	-	-
Eskra Technical Products Inc	C/FFP	Eskra Technical Products Inc : WI	0.822	1.332		0.015		-		-		-	-	-	-
EaglePicher Technologies LLC	C/CPFF	EaglePicher Technologies LLC : MO	0.279	0.159		0.420		-		-		-	-	-	-
Quallion, LLC	C/CPFF	Quallion, LLC : CA	0.778	0.010		0.460		-		-		-	-	-	-
Saft America Inc	C/CPFF	Saft America Inc : MD	0.098	0.010		1.005		-		-		-	-	-	-
Redblack Communications Inc	C/CPFF	Redblack Communications Inc : MD	0.430	0.010		-		-		-		-	-	-	-
Logistics Management Institute	C/CPFF	Logistics Management Institute : VA	0.158	-		-		-		-		-	-	-	-
Navitas Systems	C/CPFF	Navitas Systems : MI	0.308	-		-		-		-		-	-	-	-
US Army	MIPR	US Army : MI	0.467	0.042		-		-		-		-	-	-	-
Giner Inc	C/CPFF	Giner Inc : MA	0.100	-		-		-		-		-	-	-	-
<b>Subtotal</b>			4.472	1.871		2.002		-		-		-	-	-	-
<b>Project Cost Totals</b>			4.472	1.871		2.002		-		-		-	-	-	-

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 6 / <i>Battery Network (BATTNET)</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Production Processes for Hybrid Li-CFx Batteries																												
Low Cost Dry Electrode Production Capability																												
Zero Volt Technology for Military Applications																												
Production Processes for NAVAIR Lithium-ion																												
Production Design & Processes for Li-ion 6T																												
Advanced Battery Manufacturing Technologies																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 6 / <i>Battery Network (BATTNET)</i>

Schedule Details

Events	Start		End	
	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
Advanced Battery Manufacturing Technologies	4	2015	4	2015

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>7: Material Availability (MA)</i>	-	-	-	6.875	-	6.875	6.956	7.073	7.293	7.439	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 and assure the DLA managed products meet requirements, and continuously improve in the 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, Combat Rations, 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 FY2013, DLA received 130,600 orders for 2.76 million batteries at \$177M net value.

The Combat Rations network is focused on improving the manufacturing technologies related to the production and distribution of the combat rations that are at the forefront of operations, including Meals Ready to Eat (MREs) and Unitized Group Rations (UGR). The objectives are increased readiness, improved quality, optimum sizing for transportation and storage, and better ration variety. CORANET research efforts also help control the cost of the combat rations. The CORANET 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 and transition improved technologies for operational rations.

The Castings consortium objective is to develop methods and technologies to improve the supply of cast parts; looking at root causes of supply issues inside DLA and at casting suppliers. This program includes tasks to develop new and improved metalcasting capabilities in the areas of inspection, materials, modeling, and design. Once developed these capabilities will support the foundry industry, where the technologies will be tested and implemented. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders. Cast parts are ~2% of National Stock Numbered parts but represent ~4% of all backorders, and when only the oldest backorders are considered up to 10% are castings.

The Forgings consortium objective is to develop methods and technologies to improve the supply of forged parts; looking at root causes of supply issues inside DLA and at forging suppliers. The program has three thrusts: Business Enterprise Integration to improve supply support approaches; FORGE-IT to develop and improve technical problems; and R&D which develops new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time and expensive item) and for simulation of metal flow inside the forge die to eliminate trial and error development of the die. Weapon system spare parts managed by DLA that contain

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>
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forgings are responsible for a disproportionate share of DLA's backorders. Forged parts are ~2% of National Stock Numbered parts but represent ~4% of all backorders, and when only the oldest backorders are considered up to 10% are forgings.

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 2014	FY 2015	FY 2016
<p><b>Title:</b> Material Availability (MA)</p> <p><b>FY 2014 Accomplishments:</b> New Start in FY 16</p> <p><b>FY 2015 Plans:</b> New Start in FY 16</p> <p><b>FY 2016 Plans:</b> 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. FY 17: 2.070 FY 18: 2.107 FY 19: 2.159 FY 20: 2.202</p> <p>The Combat Rations network plan is to complete STP 4018 and begin implementation. Complete STP 4017 and establish follow-on Project which will incorporate Inspection Improvement recommendations into a quality process review for effective and efficient implementation of the new Food Safety Act requirements. Develop long term programmatic improvements in conjunction with DLA Troop Support in order to establish the highest priorities for limited R&amp;D funding. Non-Destructive Seal Tester for Bakery Products and other related ration improvements should be factored in when funds are available. FY 17: 1.654 FY 18: 1.681 FY 19: 1.739 FY 20: 1.774</p> <p>The Castings consortium plan is to identify and award new Short Term Projects with an expected duration of 18-24 months. Proposals are required to include a business case with specific metrics and transition plan for success. FY 17: 2.220 FY 18: 2.257 FY 19: 2.333 FY 20: 2.380</p> <p>The Forgings consortium plan is to identify and award new Short Term Projects with an expected duration of 18-24 months. 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. FY 17: 1.064 FY 18: 1.082 FY 19: 1.119 FY 20: 1.141</p>	-	-	6.875



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	6.875

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

N/A

**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 Combat Rations network acquisition strategy is delivery orders against competitively awarded IDIQ R&D contracts.

The Castings consortium plan is a competitive Broad Agency Announcement (BAA). Evaluations were completed and two contracts were awarded competitively September 2011. The current contracts reach the end of their base period of performance September 30, 2014. Option extensions will be exercised to extend the base contracts.

The Forgings consortium plan is a competitive Broad Agency Announcement (BAA). Evaluations are completed and contract(s) will be awarded soon. The current contract ends September 30, 2014. A Broad Agency Announcement (BAA) was issued on 20 August 2013, with proposals received by 07 October 2013. Contract award(s) is expected 4th quarter FY14. The plan also includes awarding Phase 2 and 3 projects from DLA's Small Business Innovation Research (SBIR) in advanced Forging manufacturing technology.

The Additive Manufacturing plan will partner with the Military Services and use organic and commercial AM parts production capabilities.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>

**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 Combat Rations 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.

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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Clemson University	C/CPFF	Clemson University : SC	0.000	-		-		0.020		-		0.020	-	-	-
Michigan State University	C/CPFF	Michigan State University : MI	0.000	-		-		0.020		-		0.020	-	-	-
Rutgers State University of New Jersey Division of Grants & Contracts Accounting	C/CPFF	Rutgers State University of New Jersey Division of Grants & Contracts Accounting : NJ	0.000	-		-		0.400		-		0.400	-	-	-
SOPAKO Inc	C/CPFF	SOPAKO Inc : SC	0.000	-		-		0.020		-		0.020	-	-	-
University of Illionois	C/CPFF	University of Illionois : IL	0.000	-		-		0.020		-		0.020	-	-	-
University of Tennessee	C/CPFF	University of Tennessee : TN	0.000	-		-		0.020		-		0.020	-	-	-
Washington State University	C/CPFF	Washington State University : WA	0.000	-		-		0.020		-		0.020	-	-	-
Cadillac Products Inc	C/CPFF	Cadillac Products Inc : MI	0.000	-		-		0.020		-		0.020	-	-	-
Oregon Freeze Dry Inc	C/CPFF	Oregon Freeze Dry Inc : OR	0.000	-		-		0.020		-		0.020	-	-	-
Research and Development Associates	C/CPFF	Research and Development Associates : TX	0.000	-		-		0.020		-		0.020	-	-	-
The Wornick Company	C/CPFF	The Wornick Company : AL	0.000	-		-		0.400		-		0.400	-	-	-
Sterling Foods	C/CPFF	Sterling Foods : TX	0.000	-		-		0.020		-		0.020	-	-	-
Virginia Polytechnic Institute and State University	C/CPFF	Virginia Polytechnic Institute and State University : VA	0.000	-		-		0.020		-		0.020	-	-	-
Male Duck Inc	C/FP	Male Duck Inc : VA	0.000	-		-		0.100		-		0.100	-	-	-
Analytic Strategies LLC	C/FP	Analytic Strategies LLC : VA	0.000	-		-		0.100		-		0.100	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Logistics Agency											<b>Date:</b> February 2015				
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>					<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>						

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Alion Science and Technology Corporation	C/CPFF	Alion Science and Technology Corporation : IL	0.000	-		-		0.521		-		0.521	-	-	-
Eskra Technical Products Inc	C/CPFF	Eskra Technical Products Inc : WI	0.000	-		-		0.015		-		0.015	-	-	-
EaglePicher Technologies LLC	C/CPFF	EaglePicher Technologies LLC : MO	0.000	-		-		0.420		-		0.420	-	-	-
Quallion LLC	C/CPFF	Quallion LLC : CA	0.000	-		-		0.460		-		0.460	-	-	-
Saft America Inc	C/CPFF	Saft America Inc : MD	0.000	-		-		1.020		-		1.020	-	-	-
Advanced Technologies Institute	C/CPFF	Advanced Technologies Institute : SC	0.000	-		-		3.219		-		3.219	-	-	-
<b>Subtotal</b>			0.000	-		-		6.875		-		6.875	-	-	-

Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>	0.000	-	-	6.875	-	6.875	-	-	-

Remarks

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MRE Supply Chain Process and Cost Evaluation																												
Optimization Inspection Costs																												
Shelf Life Monitoring Improvement Process																												
Non Destructive Seal Tester for Bakery Products																												
Emerging Projects																												
Tempature Evaluation Defense Depot San Joaquin																												
Chemical Resistance Packaging Condiments																												
Low Cost Dry Electrode Production Capability																												
Production Design & Processes for Li-ion 6T																												
Advanced Battery Manufacturing Technologies																												
Tools for Streamlining Casting Supply Chains																												
Defense Casting For Supply Integration and Statistical Properties for MMPDS Standard																												
Modeling of Steel Casting Performance Dimensions and Distortion																												
Lube-Free Die Casting																												
Lightweight High Strength Cast Alloys Process Development																												
Forging Process Improvement Using Intensive Quenching																												
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains																												
Innovations in Repair of Forging Dies																												

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	████████████████████
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	████████████████████
Forged Fiber Reinforced Aluminum Engine Components	████████████████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 7 / <i>Material Availability (MA)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MRE Supply Chain Process and Cost Evaluation	1	2016	4	2016
Optimization Inspection Costs	1	2016	4	2016
Shelf Life Monitoring Improvement Process	1	2016	2	2016
Non Destructive Seal Tester for Bakery Products	1	2016	2	2016
Emerging Projects	1	2016	4	2016
Tempature Evaluation Defense Depot San Joaquin	1	2016	4	2016
Chemical Resistance Packaging Condiments	1	2016	4	2016
Low Cost Dry Electrode Production Capability	1	2016	4	2016
Production Design & Processes for Li-ion 6T	1	2016	4	2016
Advanced Battery Manufacturing Technologies	1	2016	4	2016
Tools for Streamlining Casting Supply Chains	1	2016	4	2016
Defense Casting For Supply Integration and Statistical Properties for MMPDS Standard	1	2016	4	2016
Modeling of Steel Casting Performance Dimensions and Distortion	1	2016	4	2016
Lube-Free Die Casting	1	2016	4	2016
Lightweight High Strength Cast Alloys Process Development	1	2016	4	2016
Forging Process Improvement Using Intensive Quenching	1	2016	4	2016
FORGE-IT, AFCAT, and MetaLFACT for Streamlining Forging Supply Chains	1	2016	4	2016
Innovations in Repair of Forging Dies	1	2016	4	2016
Large-Scale Forging Die Fabrication in Support of the Defense Logistics Agency	1	2016	4	2016
Simulation as an Integral Tool in the Development and Optimization of Advanced Forging Processes	1	2016	4	2016
Forged Fiber Reinforced Aluminum Engine Components	1	2016	4	2016

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 8 / <i>High Quality Sources (HQS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>8: High Quality Sources (HQS)</i>	-	-	-	12.373	-	12.373	12.482	12.707	13.011	13.271	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: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. 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 2014	FY 2015	FY 2016
<b>Title:</b> High Quality Sources (HQS)	-	-	12.373
<b>FY 2014 Accomplishments:</b> New Start in FY 16			
<b>FY 2015 Plans:</b> New Start in FY 16			
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 transition flexible NMOS/PMOS Digital Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. MAE will also 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 Advanced Schottky TTL and TTL-Compatible CMOS Emulation Capabilities. It will			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 8 / <i>High Quality Sources (HQS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>continue prototyping 350 nanometer Emulation circuitry, bringing Emulation capability that re-establishes sources for additional NSNs.</p> <p><b>FY 2016 Plans:</b> 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 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 and 512K Read-Only and Random-Access Memory. MAE will also initiate several new implementations including development of a 1 million gate Application-Specific Integrated Circuit (ASIC) Emulation Capability. It will complete prototyping 350 nanometer Emulation circuitry, bringing Emulation capability that re-establishes sources for additional NSNs. FY 17: 12.576 FY 18: 12.804 FY 19: 13.112 FY 20: 13.374</p> <p>Strategic Materials: New Start in 2016. A request for white paper proposals was recently added to DLA's Emerging R&amp;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.  FY 16- FY 20: Funding will be reallocated based project requirements and reclassified into the Strategic Material Thrust.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	12.373

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 8 / <i>High Quality Sources (HQS)</i>

**E. Performance Metrics**

Transition of one technology implementation (base array) to low-rate initial production or full-scale production.

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.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 8 / <i>High Quality Sources (HQS)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Advanced Schottky TTL																												
TTL Compatible CMOS																												
0.35 CMOS Process Devel. II																												
Op Amp Process Devel. II																												
Process Capability Enhancement I																												
SPAWAR COTR																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 8 / <i>High Quality Sources (HQS)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Advanced Schottky TTL	1	2016	4	2016
TTL Compatible CMOS	1	2016	4	2016
0.35 CMOS Process Devel. II	1	2016	2	2016
Op Amp Process Devel. II	1	2016	2	2016
Process Capability Enhancement I	1	2016	4	2016
SPAWAR COTR	1	2016	4	2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>				<b>Project (Number/Name)</b> 9 / <i>Industry and Customer Collaboration(ICC)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9: <i>Industry and Customer Collaboration(ICC)</i>	-	-	-	5.357	-	5.357	5.427	5.515	5.683	5.797	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Industry and Customer Collaboration 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 Uniform System Technology and the Defense Logistics Information Research (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.

This Strategic Focus Area has 5 Roadmaps: Military Uniform System Technology (MUST), Model Based Enterprise, Technical and Logistical Data Interoperability, Proactive Forecasting and Retail Support, and Supplier Operations Interface.

The Military Uniform System Technology roadmap will address GAO Report 12-707 recommendations that DOD to establish a "knowledge based approach" to collaborate on define and communicate of military uniforms. 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. MUST will research enabling technologies and apply them to reengineering technical data requirement management process for the common environment recommended by the GAO.

The Model Based Enterprise will develop capabilities operations to systematically accept, validate, store, item design information 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 designs. The problem with legacy part is that they do not have engineering models so a specific decision has to be made on the economics of 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.

The Proactive Forecasting and Retail Support will roadmap will identify ways to look ahead at military operations and budgets to systematically identify parts there demand changes can be expected. The alternative is reactively waiting for forecasting to recognize trends which could be after the fact and too late to affect logistics support decisions.

The Supplier Operations Interface Roadmap will work with DLA process owners, the DLA supply chains and the industrial base, to identify the relevant data sets and most desirable methods of providing DLA suppliers with NIIN inventory visibility where the supplier is contractually responsible for providing a specified level of support. Allowing suppliers to more effectively anticipate DLA's requirements will improve both DLA and supplier efficiency.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 9 / <i>Industry and Customer Collaboration(ICC)</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p><b>Title:</b> Industry and Customer Collaboration(ICC)</p> <p><b>FY 2014 Accomplishments:</b> New Start in FY 16</p> <p><b>FY 2015 Plans:</b> New Start in FY 16</p> <p><b>FY 2016 Plans:</b> The MUST program will be beginning to build the first increment of the knowledge based environment required by GAO Report 12-707. The basic contracts are in place and the initial development projects from FY 15 will be underway. FY 17: 3.553 FY 18: 3.612 FY 19: 3.735 FY 20: 3.810</p> <p>The 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. FY 17: 1.915 FY 18: 1.946 FY 19: 1.992 FY 20: 2.032</p> <p>Proactive forecasting and retail support will perform an initial project which will complete the initial characterization and strategy. A follow-on project will be initiated to pursue the priority directions identified in the initial project. Plans for supplier operations interface will be completed, and the first steps taken in implement the plan.</p> <p>FY 16 – FY 20 Funding will be reallocated and reclassified based on identification of specific requirements.</p>	-	-	5.357
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	5.357

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

**Remarks**

**D. Acquisition Strategy**  
Delivery/Task Orders are awarded against a competitively awarded IDIQ contract.

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
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At least 30% of the completed projects will transition.

OSD-C financial metrics (obligation and disbursement) will be achieved.





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 9 / <i>Industry and Customer Collaboration(ICC)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CDUM 1																												
MUST 1																												
MUST 2																												
MUST 5																												
DLIR 1																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708011S / <i>Industrial Preparedness Manufacturing Technology (IP ManTech)</i>	<b>Project (Number/Name)</b> 9 / <i>Industry and Customer Collaboration(ICC)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CDUM 1	1	2016	2	2016
MUST 1	1	2016	4	2016
MUST 2	1	2016	2	2016
MUST 5	1	2016	2	2016
DLIR 1	1	2016	4	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	9.578	5.482	1.574	1.770	-	1.770	1.770	1.770	1.770	1.770	Continuing	Continuing
1: <i>Logistics Support Activities (LSA)</i>	7.928	4.560	-	-	-	-	-	-	-	-	Continuing	Continuing
2: <i>Pacific Disaster Center</i>	1.650	0.922	1.574	1.770	-	1.770	1.770	1.770	1.770	1.770	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).

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	4.659	1.574	1.531	-	1.531
Current President's Budget	5.482	1.574	1.770	-	1.770
Total Adjustments	0.823	-	0.239	-	0.239
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.823	-			
• SBIR/STTR Transfer	-	-			
• Internal Adjustment	-	-	0.239	-	0.239

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>				<b>Project (Number/Name)</b> 1 / <i>Logistics Support Activities (LSA)</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: <i>Logistics Support Activities (LSA)</i>	7.928	4.560	-	-	-	-	-	-	-	-	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. USD(AT&L) and the DoD CIO will provide acquisition oversight authority for the program.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>				<b>Project (Number/Name)</b> 2 / <i>Pacific Disaster Center</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2: <i>Pacific Disaster Center</i>	1.650	0.922	1.574	1.770	-	1.770	1.770	1.770	1.770	1.770	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)

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Pacific Disaster Center (PDC)	0.922	1.574	1.770
<p><b>Description:</b> 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. USD(AT&amp;L) and the DoD CIO will provide acquisition oversight authority for the program.</p> <p>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&amp;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.</p> <p>The PDC Program Office's (USD(P), ASD(HD&amp;GS), and DASD(DC&amp;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</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>	<b>Project (Number/Name)</b> 2 / <i>Pacific Disaster Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>priorities with the UH and PDC. The PDC Program Office also serves as a support element of the Hawaii-based organization especially in the area of gaining Federal agency support and resources, as well as business opportunities.</p> <p><b><i>FY 2014 Accomplishments:</i></b>                      In 2013-2014, the Center's applications, services, and products were used around the clock by U.S. Agencies as well as by international partners involved in disaster preparedness and response, and those involved in HA/DR operations. Domestically, the capabilities were used by Department of Defense (DoD), Department of Homeland Security (DHS) and Federal Emergency management Agency, state National Guards, and a host of other federal, state, and county emergency managers in the U.S. to better prepare for and respond to disasters. PDC's application, for instance, was one of the primary tools used by the Hawaii State Governor and The Adjutant General for their decision-making as Hurricane Iselle approached the State in 2014. Internationally, the Center supported major partners globally, and in particular those in Southeast Asia and the Americas, regions frequently affected by significant earthquakes, storms, floods, and tsunami threats. In all, PDC's public applications—providing hazard monitoring, alerting, and related information services—were accessed from at least from 120 countries worldwide, and its mobile (iOS and Android) applications exceeded 1.45 million downloads.</p> <p>Emphasis areas in FY 2014 included:</p> <ul style="list-style-type: none"> <li>• Improved Situational Awareness and Decision Support Applications, including planned release of internet-based DisasterAWARE (1 major, 2 main, and 8 minor releases) and mobile DisasterALERT (2 iOS and Android releases) applications</li> <li>• Expanded national socio-economic risks and vulnerability assessment, and resilience indicators</li> <li>• Provided location-based notifications, information, and analytical support to DoD and other HA/DR stakeholders during at least 30 major disasters or events in the US and around the globe</li> <li>• Supported 15 exercises in 6 Partner Countries across 3 COCOM AORs</li> <li>• Maintained and expanded content and capabilities of global information services to increase situational awareness and to address humanitarian relief operational needs</li> <li>• 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</li> </ul> <p><b><i>FY 2015 Plans:</i></b>                      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</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>	<b>Project (Number/Name)</b> <i>2 / Pacific Disaster Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>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.</p> <p>Emphasis areas in FY 2015 include:</p> <ul style="list-style-type: none"> <li>• Implement uniform communication, expanding operational utility of mobile applications</li> <li>• Improve automated damage and needs assessment and other analytical reports</li> <li>• Expand bio/health related monitoring capabilities (in partnership with OSD and U.S. Navy).</li> <li>• Continue 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.</li> <li>• Build 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</li> </ul> <p><b>FY 2016 Plans:</b></p> <p>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.</p> <p>Emphasis areas in FY 2016 include:</p> <ul style="list-style-type: none"> <li>• 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)</li> <li>• Extend and enhance mobile computing and situational awareness platform for DisasterAWARE/RAPIDS to include:             <ol style="list-style-type: none"> <li>a) limited "down range" data collection &amp; sharing capabilities (e.g., damage photos, voice memos, etc.)</li> <li>b) investigate and implement degraded but functional/operational "off-grid" capabilities</li> <li>c) investigate and implement degraded but operational "low bandwidth" capabilities</li> </ol> </li> <li>• Enhance DisasterAWARE's social media/network visualization capabilities, in collaboration with partners such as ONR-funded research in the subject matter</li> <li>• 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</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Logistics Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>	<b>Project (Number/Name)</b> 2 / <i>Pacific Disaster Center</i>
--	---	--

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>• Extend collaboration with DTRA &amp; other data providers in enhancing data fusion capabilities</li> <li>• 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</li> <li>• 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</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.922	1.574	1.770

**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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Logistics Agency												Date: February 2015		
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 0708012S / Logistics Support Activities (LSA)				Project (Number/Name) 2 / Pacific Disaster Center				

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PDC DisasterAWARE: Early Warning and Decision Support Applications	MIPR	University of Hawaii Systems : Honolulu, HI	1.650	0.922	Dec 2013	1.574	Dec 2014	1.770	Dec 2015	-		1.770	-	-	-
<b>Subtotal</b>			1.650	0.922		1.574		1.770		-		1.770	-	-	-
<b>Project Cost Totals</b>			1.650	0.922		1.574		1.770		-		1.770	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Logistics Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>	<b>Project (Number/Name)</b> 2 / <i>Pacific Disaster Center</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>PDC</i>																												
PDC																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Logistics Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0708012S / <i>Logistics Support Activities (LSA)</i>	<b>Project (Number/Name)</b> 2 / <i>Pacific Disaster Center</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>PDC</b>				
PDC	1	2014	4	2020

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Security Cooperation Agency**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense Security Cooperation Agency • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Operational System Development	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518
Summary Recap of FYDP Programs							
Research and Development	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Operational System Development	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518
Summary Recap of FYDP Programs							
Research and Development	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Defense Security Cooperative Agency	16,807	12,386		12,386	10,518		10,518
Total Research, Development, Test & Evaluation	16,807	12,386		12,386	10,518		10,518

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Se
179	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	3,270	1,750		1,750	1,750		1,750	U
180	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	287	286		286	294		294	U
183	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	13,250	10,350		10,350	8,474		8,474	U
		Operational System Development		16,807	12,386		12,386	10,518		10,518	
Total Research, Development, Test & Eval, DW				16,807	12,386		12,386	10,518		10,518	

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Defense Security Cooperative Agency  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

23 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
179	0605127T	Regional International Outreach (RIO) and Partnership for Peace Information Mana	07	3,270	1,750		1,750	1,750		1,750	U
180	0605147T	Overseas Humanitarian Assistance Shared Information System (OHASIS)	07	287	286		286	294		294	U
183	0607327T	Global Theater Security Cooperation Management Information Systems (G-TSCMIS)	07	13,250	10,350		10,350	8,474		8,474	U
Operational System Development				16,807	12,386		12,386	10,518		10,518	
Total Defense Security Cooperative Agency				16,807	12,386		12,386	10,518		10,518	



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Defense Security Cooperation Agency • President's Budget Submission FY 2016 • RDT&E Program

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*Budget Activity 07: Operational Systems Development*  
*Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide*

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183	07	0607327T	Global Theater Security Cooperation Management information Systems (G-TSCMIS)...	Volume 5 - 477

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Overseas Humanitarian Assistance Shared Information System (OHASIS)	0605147T	180	07.....	Volume 5 - 471
Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)	0605127T	179	07.....	Volume 5 - 461

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Cooperation Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605127T I <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	7.081	3.270	1.750	1.750	-	1.750	1.750	1.750	1.783	1.817	Continuing	Continuing
000000: <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>	7.081	3.270	1.750	1.750	-	1.750	1.750	1.750	1.783	1.817	Continuing	Continuing

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

Regional International Outreach (RIO) - Partnership for Peace (PfP) Information Management System (PIMS) is an Office of the Secretary of Defense (OSD) initiative. The primary 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 as required. The program uses a spiral methodology (making available capabilities as developed), 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 designated DoD institutions and communities. It provides DoD and international partner security practitioners a platform to share information, communicate and collaborate, and improve administrative activities. It also 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. PIMS, as a part of the NATO Enlargement Facilitation Act of 1996, implements the Congressional endorsement for the modernization of Defense capabilities in eligible PfP countries relative to their telecommunications infrastructure. RIO-PIMS provides allies and partner countries the ability to collaborate in critical cooperative activities that underpin the spirit of the PfP program. The program supports PfP coalition initiatives through development of distributive collaboration tools to support aspects of U.S. and NATO-approved PfP cooperative activities. This support is important to achieve the interoperability/integration outlined in the Guidance for the Employment of the Force. RIO-PIMS supports internet-based education and collaboration, exercise simulations, and training center requirements.

The Regional Centers Person/Activity Management System (RCPAMS) provides an integrated student and activities management framework for the Regional Centers for Security Studies that was designed to complement the capabilities of the Security Assistance Network (SAN). Data updates in GlobalNET and RCPAMS will be shared to ensure data integrity.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Cooperation Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605127T <i>I Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	3.270	1.750	1.750	-	1.750
Current President's Budget	3.270	1.750	1.750	-	1.750
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

FY 2014: RIO-PIMS required \$3.270 to research and implement the learning management module identified as required from multiple user communities in FY 2014; move the system out of current hosted environment and deploy it in a FEDRAMP compliant hosting facility; to research the computer human interface (CHI) ensuring it is closely aligned with the new stakeholder workflow; migrate the technology from an older code base to a newer version reducing security vulnerabilities and making system extensions less costly to perform and maintain; deploy a native video teleconference (VTC) capability to replace the existing Adobe connect system; update and complete DIACAP paperwork and support DSCA CIO to get a GIG waiver.

FY2015: The decrease reflects sequestration reduction and SBIR/STTR transfer

FY2016: No Change

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>				<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000000: <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>	7.081	3.270	1.750	1.750	-	1.750	1.750	1.750	1.783	1.817	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Regional International Outreach (RIO) - Partnership for Peace (PfP) Information Management System (PIMS) is an Office of the Secretary of Defense (OSD) initiative. The primary 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 - fosters networks of partner influencers and enables better use of DoD resources through collaboration among the Regional Centers for Security Studies, PfP and international partners, other DoD educational institutions and communities as required. The program uses a spiral methodology (making available capabilities as developed), 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 designated DoD institutions and communities. It provides DoD and international partner security practitioners a platform to share information, communicate and collaborate, and improve administrative activities. It also 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. PIMS, as a part of the NATO Enlargement Facilitation Act of 1996, implements the Congressional endorsement for the modernization of Defense capabilities in eligible PfP countries relative to their telecommunications infrastructure. RIO-PIMS provides allies and partner countries the ability to collaborate in critical cooperative activities that underpin the spirit of the PfP program. The program supports PfP coalition initiatives through development of distributive collaboration tools to support aspects of U.S. and NATO-approved PfP cooperative activities. This support is important to achieve the interoperability/integration outlined in the Guidance for the Employment of the Force. RIO-PIMS supports internet-based education and 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 interface between the SAN, RCPAMS, and GlobalNET will provide faculty and students an effective information service to ensure student, activity, and alumni management. Data will be shared between the systems ensuring improved data integrity.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>	<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> Regional International Outreach - Partnership for Peace Information Management System</p> <p><b>FY 2014 Accomplishments:</b>                      Move the system out of current hosted environment and deploy it in a FEDRAMP compliant hosting facility. Currently the security requirements according to the DSCA CIO do not meet the new baseline requirements and need to be hardened. The technology is intended to be hosted at the same facility as RCPAMS taking advantage of economies of scale. At the same time, update and complete new DIACAP paperwork and support DSCA CIO to get a GIG waiver.</p> <p>Implement the learning management module identified as required. Users have identified the current workflow built into the system as incomplete and it is required to be extended. The NATO School uses an open source LMS that we will make available via GlobalNET with single sign –on which they currently lack this gives us economies of scale that can be realized and by using NATO School’s open source LMS which will be less costly than extending the software for this functionality.</p> <p>Common access card (CAC) enable the system. As the system was designed to support foreign nationals, it does not support CAC authentication and with the security requirements and the inclusion of more US citizens, CAC enablement will provide more access control and easier access.</p> <p>Migrate the technology from an older code base to a newer version. GlobalNET is at risk for falling two major software releases behind, increasing the lack of supportability and development personnel. The update will certify all of the extensions and move to the most recent stable version which will reduce security vulnerabilities and make system extensions less costly to perform and maintain</p> <p>Continue to research the computer human interface (CHI) ensuring it is closer aligned with the consolidated workflow. We continue to refine the interface such that users are finding operations to be easier and more intuitive to perform.</p> <p>Deploy a native video teleconference (VTC) capability to replace the existing hosted service. GlobalNET is currently bundled with a loosely coupled Adobe connect system outside of the GlobalNET stack and hosting environment. The capability would create a native VTC capability inside of the platform allowing much tighter integrations with messaging, file sharing, white boarding, and chatting and reduce the operations and maintenance (O&amp;M) expense of leasing this service.</p> <p>Work 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.</p>	3.270	1.750	1.750



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>	<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Extend the information exchange between the RCPAMS and GlobalNET. The exchange is only working for exporting users from RCPAMS to GlobalNET for account provisioning and there are three additional functions to implement.</p> <p><b>FY 2015 Plans:</b> 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><b>FY 2016 Plans:</b> 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	3.270	1.750	1.750

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

N/A

**Remarks**

**D. Acquisition Strategy**

The GlobalNET effort employs a spiral acquisition strategy to ensure 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 agencies,

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>	<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>

existing assets are leveraged to preserve U.S. investments, avoid duplication of effort between agencies, and offer economically prudent solutions to improve information sharing and achieve U.S. security cooperation goals. Independent Operational Test teams were brought on to ensure that GlobalNET and bears independent validation of the development team's effort. GlobalNET has regional based personnel to assist in the adoption of the platform with partners who are not familiar with social collaboration and networking media. RCPAMS uses a similar spiral approach, testing and fielding approach.

**E. Performance Metrics**

RIO-PIMS projects 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.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>	<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Deploy System	[REDACTED]																											
Award Support Services Contract for Support, ISP, and Limited Equipment Support	[REDACTED]																											
Refine Interface for Community Use	[REDACTED]																											
Certification and Accreditation	[REDACTED]																											
Deploy full RCPAMS Interface	[REDACTED]																											
Identify New Institutions for GlobalNET	[REDACTED]																											
Upgrade Core and Maintenance Releases	[REDACTED]																											
Deploy to Other Institutions	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605127T / <i>Regional International Outreach (RIO) - Partnership for Peace Information Management System (PIMS)</i>	<b>Project (Number/Name)</b> 000000 / <i>Regional International Outreach - Partnership for Peace Information Management Systems</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Deploy System	1	2014	2	2017
Award Support Services Contract for Support, ISP, and Limited Equipment Support	1	2015	4	2018
Refine Interface for Community Use	4	2014	4	2017
Certification and Accreditation	3	2014	3	2017
Deploy full RCPAMS Interface	3	2014	4	2014
Identify New Institutions for GlobalNET	2	2014	4	2017
Upgrade Core and Maintenance Releases	3	2014	4	2017
Deploy to Other Institutions	3	2014	4	2017

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Cooperation Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / <i>Overseas Humanitarian Assistance Shared Information System (OHASIS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.842	0.287	0.286	0.294	-	0.294	0.299	0.302	0.308	0.314	Continuing	Continuing
000204: <i>Overseas Humanitarian Assistance Shared Information System</i>	0.842	0.287	0.286	0.294	-	0.294	0.299	0.302	0.308	0.314	Continuing	Continuing

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

The Overseas Humanitarian Assistance Shared Information System (OHASIS) provides Humanitarian Assistance (HA) offices, including embassy staff, country team members, Combatant Command leads, and the Defense Security Cooperation Agency (DSCA) the capability to manage and visualize Overseas Humanitarian, Disaster and Civic Aid (OHDACA) funded projects on a web-based map display, automate report generation, coordinate with Inter-Agency and Partner Nation stakeholders, as well as perform a variety of analysis.

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 2.2 system which contains more than 14,000 projects valued at more than \$1.8 billion, with a community of over 3,000 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, and manage 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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	0.287	0.286	0.294	-	0.294
Current President's Budget	0.287	0.286	0.294	-	0.294
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

FY14-16: 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)				<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000204: Overseas Humanitarian Assistance Shared Information System	0.842	0.287	0.286	0.294	-	0.294	0.299	0.302	0.308	0.314	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Overseas Humanitarian Assistance Shared Information System (OHASIS) enables Humanitarian Assistance (HA) offices, including embassy staff, country team members, Combatant Command leads, and the Defense Security Cooperation Agency (DSCA) to manage and visualize Overseas Humanitarian, Disaster and Civic Aid (OHDACA) projects on a web-based map display, automate report generation, and perform a variety of analysis.

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 2.2 system which contains 15,000 projects valued at more than \$1.8 billion, with a community of over 3,000 users. The OHASIS system is a critical and mission essential means for thousands of military and civilian users to develop, staff, approve and manage 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Overseas Humanitarian Assistance Shared Information System	0.287	0.286	0.294
<b>FY 2014 Accomplishments:</b>			
Building upon the improvements above: the FY 2014 funding will be used to improve reporting capabilities and efficiencies, and continue development of establishing quantifiable measures of effectiveness within HA projects that can be used to assess program success. Specific plans include:			
Operationalize Project Umbrella functionality			
Develop one Year After Action Reporting data input forms			
Refine and tune Humanitarian Assistance project nomination template			
Refine and tune Humanitarian Assistance Mine Action project nomination template			
<b>FY 2015 Plans:</b>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / <i>Overseas Humanitarian Assistance Shared Information System (OHASIS)</i>	<b>Project (Number/Name)</b> 000204 / <i>Overseas Humanitarian Assistance Shared Information System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Focus on developing functionality geared towards the analysis of project information, after action reporting, and assess data. Develop tools to measure long-term effects of HA steady state projects.</p> <p><b>FY 2016 Plans:</b> Develop ways to use the data and tools, within OHASIS, to measure long-term effects of our HA projects. This includes beginning the development of the one-year AAR by leveraging the system tools (i.e. project nomination template, 30-day AAR, etc).</p> <p>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.</p> <p>Continue working the system accreditation through the DSCA CIO. Refine and implement the "Umbrella Project" concept within the system. The umbrella project will give users a more strategic approach towards our humanitarian assistance investment.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.287	0.286	0.294

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

N/A

**Remarks**

**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.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Security Cooperation Agency											<b>Date:</b> February 2015					
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)				<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System								
<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>				
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
Geospatial Research Integration Development and Support (GriDS) II, IDIQ	MIPR	SAIC : Alexandria, VA	0.842	0.287	Jun 2014	0.286		0.294		-		0.294	Continuing	Continuing	Continuing	
<b>Subtotal</b>			0.842	0.287		0.286		0.294		-		0.294	-	-	-	
<b>Project Cost Totals</b>			0.842	0.287		0.286		0.294		-		0.294	-	-	-	
<b>Remarks</b>																

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)	<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1-yr After Action Reporting Module	████████████████																											
Measuring Effectiveness of Projects Module					████████████████																							
" Umbrella Project"Program Module	████████████████																											
Establish SIPR Presence					████████████████																							
SIPR Data Replication									████																			
SIPR Project Prioritization													████████████████															
SIPR Project Analysis													████████████████															
Develop Low Bandwidth Connectivity	████████████████																											
Project Evaluation Capability	████████████████																											
Handheld Data Access									████████████																			
Handheld Data Collection									████████████																			

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605147T / Overseas Humanitarian Assistance Shared Information System (OHASIS)	<b>Project (Number/Name)</b> 000204 / Overseas Humanitarian Assistance Shared Information System

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
1-yr After Action Reporting Module	1	2014	3	2015
Measuring Effectiveness of Projects Module	4	2014	4	2016
" Umbrella Project"Program Module	1	2014	2	2015
Establish SIPR Presence	4	2014	1	2016
SIPR Data Replication	4	2015	4	2015
SIPR Project Prioritization	4	2016	4	2017
SIPR Project Analysis	4	2016	4	2017
Develop Low Bandwidth Connectivity	2	2014	4	2015
Project Evaluation Capability	1	2014	3	2015
Handheld Data Access	4	2015	2	2016
Handheld Data Collection	4	2015	2	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Cooperation Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	13.250	10.350	8.474	-	8.474	12.328	12.025	11.758	11.982	Continuing	Continuing
1: <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	0.000	13.250	10.350	8.474	-	8.474	12.328	12.025	11.758	11.982	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 Department of Defense's (DoD) 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 security cooperation systems. It will provide a comprehensive picture of 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 strategic and operational planning 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 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 DoD systems, such as Joint Training Information Management System (JTIMS) and Joint Capability Requirements Manager (JCRM). 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 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 2020.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Cooperation Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	13.250	10.350	8.550	-	8.550
Current President's Budget	13.250	10.350	8.474	-	8.474
Total Adjustments	-	-	-0.076	-	-0.076
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation Reduction	-	-	-0.076	-	-0.076

**Change Summary Explanation**

FY 2014: USD(AT&L) transferred responsibility of continued development and sustainment of Global Theater Security Cooperation Management Information System (G-TSCMIS) to Defense Security Cooperation Agency (DSCA). First year of DSCA execution.

FY 2015: - \$500K realigned to O&M for sustainment support.

FY2016: -No significant impact

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>				<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>				
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1: <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	-	13.250	10.350	8.474	-	8.474	12.328	12.025	11.758	11.982	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) and Joint Capability Requirements Manager (JCRM). 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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
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releases require defined objectives and mature technology. Based on analysis of 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 2020.

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

	FY 2014	FY 2015	FY 2016
<p><b>Title:</b> Global Theater Security Cooperation Management Information System (G-TSCMIS)</p> <p><b>FY 2014 Accomplishments:</b>                      Conduct Operational Test of Release 1. Obtain Full Deployment Decision (FDD) for Release 1. Retire legacy TSCMIS variants once all activities have migrated to G-TSCMIS.</p> <p>Continue development of Release 2 software. This will include CSITs for Iterations 1 and 2, government IV&amp;V testing, and IA testing. Obtain IA certification of Release 2 to support making the Release operational. Conduct DT for Iterations 1 and 2. User communities will participate in CSIT testing as continued early trouble report identification and risk reduction activities. User stories and scenarios will be developed to support testing. Use Release 2 development effort to implement any necessary IA and maintenance fixes to G-TSCMIS software.</p> <p>Collaborate with JS J6 to finalize all Release 3 functional and architectural requirements in support of conducting Release 3 Build Decision. Revise appropriate acquisition documentation to support this Build Decision.</p> <p>Collect software metrics and sunk cost information to refine cost estimate, monitor Should Cost initiatives and oversee contract execution.</p> <p>Prepare Release 3 Request For Proposal (RFP) to align with contract strategy.</p> <p><b>FY 2015 Plans:</b>                      Complete development of Release 2 software. This will include user community testing event of Iteration 3, government Independent Verification and Validation (IV&amp;V) testing, IA testing, and Integrated Test (IT) with operational test agency participation for risk reduction. User stories and scenarios will be developed to support testing.</p> <p>Hold Release 3 Build Decision. Award contract for Release 3 software development. Commence development of new capabilities. Work with JS J6 to finalize all Release 4 functional and architectural requirements in support of conducting Release 4 Build Decision. Revise appropriate acquisition documentation to support this future Build Decision.</p> <p>Define Contract Strategy for software development of Releases 4 and 5.</p> <p><b>FY 2016 Plans:</b></p>	13.250	10.350	8.474



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Program office will complete fielding of Release 2 software and development and fielding of Release 3 software. This will include contractor, government and user community testing. User stories and scenarios will be developed to support testing.			
Program office holds Release 4 Build Decision, conduct source selection for Release 4 software development and commence development of new capabilities.			
Program office will work with JS J6 to finalize all Release 4 and 5 functional and architectural requirements in support of conducting Release 4 and 5 Build Decision, revise appropriate acquisition documentation to support this future Build Decision, and define Contract Strategy for software development of Release 4 and 5.			
<b>Accomplishments/Planned Programs Subtotals</b>	13.250	10.350	8.474

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0605104D8Z: <i>Technical Studies</i>	-	-	-	-	-	-	-	-	-	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 FY 2012 and enter the Incremental and Iterative Development and Deployment (IIDDD) 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. Barriers to competition were minimized by using performance and functional specifications and equivalent commercial standards. Releases 3 through 5 will 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 3 releases.

**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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
<p>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&amp;V and Developmental tests validate system performance.</p> <p>Major Performers: Science Applications International Corporation (SAIC) for Release 1 and 2 software development</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Security Cooperation Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering	MIPR	SSC LANT : Charleston, SC	-	3.513	Mar 2014	2.495	Dec 2014	8.474		-		8.474	Continuing	Continuing	-
Software Development	C/CPIF	TBD : TBD	-	6.183	Mar 2014	0.920	Dec 2014	-		-		-	Continuing	Continuing	-
Software Development	C/CPIF	TBD : TBD	-	-		4.653		-		-		-	Continuing	Continuing	-
Systems Engineering	MIPR	MITRE : San Diego	-	-		0.203	Dec 2014	-		-		-	Continuing	Continuing	-
Training Development	MIPR	SSC PAC : San Diego	-	-		0.201	Dec 2014	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	9.696		8.472		8.474		-		8.474	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation	MIPR	Various : Various	-	0.698	Mar 2014	0.247	Dec 2014	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	0.698		0.247		-		-		-	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	Option/CPFF	BAH : San Diego, CA	-	2.856	Mar 2014	-		-		-		-	Continuing	Continuing	-
Program Management Support	Option/CPFF	Seaport : San Diego, CA	0.000	-		1.171	Dec 2015	-		-		-	Continuing	Continuing	-
Contract Engineering Support	Option/CPFF	Seaport : San Diego, CA	0.000	-		0.344	Dec 2014	-		-		-	Continuing	Continuing	-
Government Engineering Support	MIPR	SSC PAC : San Diego, CA	0.000	-		0.106	Dec 2014	-		-		-	Continuing	Continuing	-



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
<b>Acquisition Milestones</b>																																				
G-TSCMIS Rel 1 FDR	██████████																																			
G-TSCMIS Rel 3 Build Decision					████																															
G-TSCMIS Rel 2 FDR					████████████████████																															
G-TSCMIS Rel 4 Build Decision									████																											
G-TSCMIS Rel 3 FDR													████																							
G-TSCMIS Rel 5 Build Decision																	████																			
G-TSCMIS Rel 4 FDR																	████																			
<b>Iterative &amp; Incremental Development / Deployment (IIDD) Activities Release 3</b>																																				
Systems Engineering					████████████████████																															
Define/Design/Develop Capabilities					████████████████████																															
<b>Iterative &amp; Incremental Development / Deployment (IIDD) Activities Release 4</b>																																				
Systems Engineering									██																											
Define/Design/Develop Capabilities									██																											
<b>Iterative &amp; Incremental Development / Deployment (IIDD) Activities Release 5</b>																																				
Systems Engineering													██																							
Define/Design/Develop Capabilities													██																							

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Security Cooperation Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607327T / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>	<b>Project (Number/Name)</b> 1 / <i>Global Theater Security Cooperation Management information Systems (G-TSCMIS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Acquisition Milestones</b>				
G-TSCMIS Rel 1 FDR	2	2014	4	2014
G-TSCMIS Rel 3 Build Decision	1	2015	1	2015
G-TSCMIS Rel 2 FDR	3	2015	3	2016
G-TSCMIS Rel 4 Build Decision	3	2016	3	2016
G-TSCMIS Rel 3 FDR	1	2017	1	2017
G-TSCMIS Rel 5 Build Decision	4	2017	4	2017
G-TSCMIS Rel 4 FDR	2	2018	2	2018
<b>Iterative &amp; Incremental Development /Deployment (IIDD) Activities Release 3</b>				
Systems Engineering	1	2015	1	2017
Define/Design/Develop Capabilities	1	2015	1	2017
<b>Iterative &amp; Incremental Development /Deployment (IIDD) Activities Release 4</b>				
Systems Engineering	1	2016	2	2018
Define/Design/Develop Capabilities	1	2016	2	2018
<b>Iterative &amp; Incremental Development /Deployment (IIDD) Activities Release 5</b>				
Systems Engineering	1	2017	4	2018
Define/Design/Develop Capabilities	1	2017	4	2019

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Security Service**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense Security Service • President's Budget Submission FY 2016 • RDT&E Program

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

08 Jan 2015

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

Line No	Element Number	Program Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
178	0604130V	Enterprise Security System (ESS)	07	7,552	3,988		3,988	7,929		7,929	U
225	0305327V	Insider Threat	07		8,670		8,670	11,733		11,733	U
		Operational System Development		7,552	12,658		12,658	19,662		19,662	
Total Research, Development, Test & Eval, DW				7,552	12,658		12,658	19,662		19,662	

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Defense Security Service • President's Budget Submission FY 2016 • RDT&E Program

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

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<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
178	07	0604130V	Enterprise Security System.....	Volume 5 - 497
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Defense Security Service • President's Budget Submission FY 2016 • RDT&E Program

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

<b>Program Element Title</b>	<b>Program Element Number</b>	<b>Line Item</b>	<b>Budget Activity</b>	<b>Page</b>
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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	93.925	7.552	3.988	7.929	-	7.929	6.641	3.275	3.332	3.399	Continuing	Continuing
000: <i>Enterprise Security System</i>	93.925	7.552	3.988	7.929	-	7.929	6.641	3.275	3.332	3.399	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 27 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 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	7.552	3.988	3.800	-	3.800
Current President's Budget	7.552	3.988	7.929	-	7.929
Total Adjustments	-	-	4.129	-	4.129
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Program Increase	-	-	4.129	-	4.129

**Change Summary Explanation**

Increase is due to additional funds being allocated to the support of Mobile Web applications and Proactive Monitoring.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Service										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System</i>				<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
000: <i>Enterprise Security System</i>	93.925	7.552	3.988	7.929	-	7.929	6.641	3.275	3.332	3.399	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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System</i>
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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 2014	FY 2015	FY 2016
<p><b>Title:</b> Systems Enhancement</p> <p><b>FY 2014 Accomplishments:</b></p> <p>1. National Industrial Security System (NISS). Completed Phase I of Business Re-engineering (BPR). Completed Phase I Functional Requirements. Obtained DCMO Pre-Milestone A approval for acquisition of the NISS Material Solution. Initiated Phase II of the Business Re-engineering (BPR) in July 2014 which includes non-material solutions review and implementations.</p> <p>2. Mobile Workforce Applications (MWA). Complete the functional and technical requirements, and test prototypes. Leverage DoD Enterprise Mobility capabilities in deploying services to DSS, DoD, and Industry.</p> <p>3. National Industrial Security Program (NISP) Control Access and Information Security System (NCAISS). Accomplish migration from the IdM to its replacement since Oracle will no longer support the Sun IdM product. This will be a major upgrade to the IdM program. Once existing applications are interfaced with NCAISS and transitioned; production to incorporate other DSS's applications to the new platform will continue.</p>	7.552	3.988	7.929

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Security Service		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>4. Migration from Sun-based NCAISS Solution to its replacement, Oracle will no longer support the Sun NCAISS product in 2014. This will be a major upgrade to the NCAISS program. Once existing applications are interfaced with NCAISS, transitioned, production to incorporate other DSS' application to the new platform will continue into FY2014.</p> <p>5. Office of Designated Approving Authority(ODAA) Business Management System (OBMS). The OBMS system was released for initial operating capability (IOC) in July for a 6 month user testing effort. Continue to support operations and sustainment activities which typically are applying security patches and software upgrades plus other system administration functions.</p> <p><b>FY 2015 Plans:</b></p> <p>1. NISS. Execute acquisition of NISS Project Integrator through Proof of Concept product demonstrations. Conduct prototyping of Facility Clearance (FCL) Processing module with initial development exception rules. Acquisition will include purchase of infrastructure licensing and hardware. Initial baseline includes Analytics and Reporting capabilities. DCMO approval will permit acquisition for development activities to begin approximately at the end of Q2 of FY2015 with delivery increment one during late Q3 of FY2015. Maintenance is scheduled to begin the first year.</p> <p>2. ISFD. Completed assessment of ISFD application code with automated and manual checks.</p> <p><b>FY 2016 Plans:</b></p> <p>1. NISS. Complete development for the FCL Processing module. Revalidate requirements begin prototyping incident response and proactive monitoring modules. Requirements workshops to support Mobile Workforce Applications (MWA) will follow the completion of each new module immediately after development of core capabilities. Analytics and reporting capabilities will expand with each new module. Begin Development of NISS Increment 1 for consolidation of ISFD and eFCL functions, implement BPR Future state workflows, dashboard, notification and native mobile capabilities.</p> <p>2. NCCS. Continued enhancements and version releases and FOC in FY 16.</p> <p>3. OBMS. Application enhancements, Security patching, software upgrades and continued sustainment activities.</p> <p>4. NCAISS. Continued integration and application sustainment costs, with some software upgrades</p> <p>5. ISFD. Execute LDAP (may include NCAISS Interface) and Discoverer (OBIEE) Upgrades.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	7.552	3.988	7.929

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

N/A

**Remarks**

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Security Service **Date:** February 2015

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

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Security Service												Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 7				PE 0604130V / Enterprise Security System				000 / Enterprise Security System							
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Enterprise Security System	C/BPA	SAIC, Northrup Grumman, EDS, Herndon, VA and Columbia, MD : Herndon, VA	93.925	7.552	Nov 2013	3.988	Dec 2014	7.929		-		7.929	Continuing	Continuing	Continuing
<b>Subtotal</b>			93.925	7.552		3.988		7.929		-		7.929	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			93.925	7.552		3.988		7.929		-		7.929	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Security Service		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0604130V / <i>Enterprise Security System</i>	<b>Project (Number/Name)</b> 000 / <i>Enterprise Security System</i>

Exhibit R-4

Exhibit R-4, RDT&E Project Schedule Profile																Date: September 2014																
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT								PROJECT NAME																							
RDT&E, DW / 07	0604130V								Enterprise Security System																							
Fiscal Year	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Technology Development of ESS Applications																																
Production and Deployment of Applications																																
O&M																																
Remarks:																																

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Security Service **Date:** February 2015

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Technology Development of ESS Applications</i></b>				
Production and Deployment Enhancements	1	2014	4	2020



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	8.670	11.733	-	11.733	2.100	-	-	-	Continuing	Continuing
0305327V: <i>Insider Threat</i>	0.000	-	8.670	11.733	-	11.733	2.100	-	-	-	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 implementation of Continuous Evaluation (CE) and establishment of the Defense Insider Threat Management and Analysis Center (DITMAC).

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	-	8.670	-	-	-
Current President's Budget	-	8.670	11.733	-	11.733
Total Adjustments	-	-	11.733	-	11.733
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• One -Time Increase	-	-	11.733	-	11.733

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Security Service **Date:** February 2015

Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0305327V / <i>Insider Threat</i>				Project (Number/Name) 0305327V / <i>Insider Threat</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0305327V: <i>Insider Threat</i>	-	-	8.670	11.733	-	11.733	2.100	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Insider Threat	-	8.670	11.733
<b>FY 2014 Accomplishments:</b> N/A			
<b>FY 2015 Plans:</b> Funding enhances the capabilities of the Insider Threat program to deter, detect and mitigate threats from exploitation, compromise and or other unauthorized disclosure. Funds development and evaluation of CE tools and systems. Expands CE capacity and Improves access to near real time data feeds from systems capable of providing reports and alerts. Performs proof of concept to identify analytic tools' efficacy and inform future system development. Funding also supports assessment of emerging technologies and development of DITMAC technical requirements.			
<b>FY 2016 Plans:</b> Funding will continue development of the DoD Insider Threat program, including the enhancement of CE and DITMAC tools and systems. Research and development efforts will be used to prove the technical capability of using automated record checks in an end-to-end process to achieve CE and influence personnel security reform. Efforts will include a synthesis of current investigative and adjudicative standards, as well as new methodologies to evaluate the whole-person concept. Furthers DITMAC IT Architecture Engineering Development for systems that will provide ingest, processing, and case management capabilities, relying on feeds from CE and monitoring systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	8.670	11.733

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

N/A

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 0305327V / <i>Insider Threat</i>
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**C. Other Program Funding Summary (\$ in Millions)**

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

TBD

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 0305327V / <i>Insider Threat</i>	0305327V / <i>Insider Threat</i>

**Remarks**  
Funding will further enhance the capabilities of the Insider Threat program to deter, detect and mitigate threats through successful implementation of Continuous Evaluation and establishment of the Defense Insider Threat Management and Analysis Center .

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Security Service		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 0305327V / <i>Insider Threat</i>

Exhibit R-4

Exhibit R-4, RDT&E Project Schedule Profile													Date: February 2015																			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NAME																											
RDT&E, DW / 07	0305327V				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:																																

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Security Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305327V / <i>Insider Threat</i>	<b>Project (Number/Name)</b> 0305327V / <i>Insider Threat</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Insider Threat</i></b>				
Insider Threat	1	2015	4	2017

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Technical Information Center**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense Technical Information Center • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Jan 2015

Summary Recap of Budget Activities -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Management Support	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775
Summary Recap of FYDP Programs -----							
Research and Development	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Management Support	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775
Summary Recap of FYDP Programs							
Research and Development	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Jan 2015

Appropriation -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-----	-----	-----	-----	-----	-----	-----	-----
Defense Technical Information Center	56,024	50,789		50,789	51,775		51,775
Total Research, Development, Test & Evaluation	56,024	50,789		50,789	51,775		51,775

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Defense-Wide  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

05 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
156	0605502KA	Small Business Innovative Research	06		400		400				-
160	0605801KA	Defense Technical Information Center (DTIC)	06	56,024	50,389		50,389	51,775		51,775	U
		Management Support		56,024	50,789		50,789	51,775		51,775	U
Total Research, Development, Test & Eval, DW				56,024	50,789		50,789	51,775		51,775	

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Defense Technical Information Center  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

05 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
156	0605502KA	Small Business Innovative Research	06		400		400				-
160	0605801KA	Defense Technical Information Center (DTIC)	06	56,024	50,389		50,389	51,775		51,775	U
		Management Support		56,024	50,789		50,789	51,775		51,775	U
Total Defense Technical Information Center				56,024	50,789		50,789	51,775		51,775	



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Defense Technical Information Center • President's Budget Submission FY 2016 • RDT&E Program

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Defense Technical Information Center • President's Budget Submission FY 2016 • RDT&E Program

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Technical Information Center **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	56.024	50.789	51.775	-	51.775	50.410	50.016	51.257	52.035	Continuing	Continuing
001: <i>Defense Technical Information Center</i>	-	48.971	45.041	46.027	-	46.027	44.662	44.268	45.509	46.287	Continuing	Continuing
002: <i>Information Analysis Centers</i>	-	7.053	5.748	5.748	-	5.748	5.748	5.748	5.748	5.748	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. Over the past several years, DTIC has evolved to an information delivery house, that through use of the internet, can deliver 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, 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 works to connect researchers across the lab enterprise, to include research and engineering, warfighters and DoD's industry partners. DTIC operations focus on five key areas:

- 1) 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).

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 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 increased outreach to industry through the Defense Innovation Marketplace.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Technical Information Center Date: February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
--	--

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 in a single location.

DTIC's Information Analysis Center (IAC) Program Office provides core funding, management and oversight of its three IACs. The IACs are chartered by DoD to collect, analyze, and disseminate worldwide scientific and technical information in specialized fields. The IAC program just completed a multi-year restructuring from ten IACs to the current three, reducing customer costs and incorporating new DoD technical interest areas. The new structure will focus on three technology groupings, to include Cyber Security and Information Systems, Homeland Defense and Security, and Defense Systems. As part of the Department's Better Buying Power initiative, new multi-award contracts have been put into place, improving competition, small-business presence, and reducing government costs. The restructured IAC Program will 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 nearly \$2.0 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 core mission, and buys space, human resources (HR), financial management, contracting, IT security and communications, and civilian payroll services from expert and efficient DoD providers: funding provides for salaries and benefits of government civilian personnel assigned to DTIC; training, professional development, and travel for DTIC personnel; support agreements for Defense Logistics Agency (DLA) facility-related services; Defense Finance and Accounting Service (DFAS) financial activities and HR services; Defense Information Services Agency (DISA) communications and IT security services; annual maintenance and licensing requirements; supplies, equipment, hardware/software; and support contracts for information technology services, Defense Agencies Initiative (DAI) system integration, and Chief Financial Officer (CFO) Act compliance efforts in concert with the Department's Financial Improvement and Audit Readiness (FIAR) program. In addition, this PE provides funding in support of the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, in accordance with Public Law 111-251 (Small Business Reauthorization Act) and Small Business Technology Transfer Program Reauthorization Act. Within the PE, an annual set-aside contribution totaling approximately \$400,000 is provided to the DoD's Commercialization Pilot Program, as directed by the Department's Office of Small Business Programs (OSBP).

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Technical Information Center **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	56.024	50.789	48.194	-	48.194
Current President's Budget	56.024	50.789	51.775	-	51.775
Total Adjustments	-	-	3.581	-	3.581
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Changes	-	-	3.581	-	3.581

**Change Summary Explanation**

Specific changes to the FY 2016 program (net increase of \$0.986 Million from the FY 2015 funding level; \$3.581 Million from the previous PB Base) are outlined below:

FY 2016 Program Change: The funding increase eliminates a one year dip in DTIC funding, leveling FY 2016 with FY 2015 and 2017 programs. This change represents a departmental restoration of DTIC mission funding. The FY 2016 funding increase directly provides for the following efforts:

- The Department's activities associated with the Office of Science and Technology Policy (OSTP) and Office of Management and Budget (OMB) requirements for public access and open digital data for research efforts. OSTP policy requires increased public access to the results of federally funded scientific research, including peer reviewed journal articles and digitally formatted scientific data. The Defense Technical Information Center (DTIC) is the lead agency for DoD's implementation and compliance.

- On-going DTIC activities--that would otherwise be suspended--needed for DTIC to meet DoD information technology security and identity management requirements, as well as efforts to expand content available to warfighters and other DTIC users on secured networks.

Public Access: The Department's efforts associated with public access and open digital data provides for a broader collection of technical data, improving access and availability for both DoD and public users. The scope of the public access initiative expands beyond DTIC's current mission areas (Budget Activities 6.1 to 6.3) to cover all research performed in the Department. This government-wide effort encourages further reuse of technical data, and is expected to drive innovation, efficiencies and cost savings to users. Additional funding in support of the public access & digital data initiative will provide for the following activities:

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Technical Information Center **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>
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- DTIC will increase its public access services (services that had been slated for curtailment as a result of previous budget reductions), enhance our research in progress summary database, collect and store manuscripts of peer reviewed journal articles, and develop tools to link public users to journal articles and relevant digital data.
  
- It is critical for DTIC to bolster its IT systems and infrastructure supporting the central repository for scientific and technical data. New automated processes will allow for efficient processing and placing of up to 40,000 additional journal articles online per year, a tenfold increase over the current volume, providing access to DoD and public users.
  
- Establish a compliance system and process linking DoD resources to research, enabling DTIC to track and collect all results generated from grants, contracts and in-house work, to include work published in peer-reviewed journal articles.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>				<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
001: <i>Defense Technical Information Center</i>	-	48.971	45.041	46.027	-	46.027	44.662	44.268	45.509	46.287	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. 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 WebService 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.

With the September 2014 full operating capability (FOC) release of the commercial product based R&E Gateway, DTIC provides the means to connect 60,000+ members in the acquisition enterprise (DoD Labs, Federally Funded Research and Development Centers (FFRDCs), Program Executive Offices, Acquisition, Technology, and Logistics (AT&L) and Combatant Commands (CCMD)). In an access controlled environment all of DTIC’s unclassified assets, tools and community interaction capabilities foster innovation, competition and identification of solutions. DoD conducts research at its 60+ labs, in the FFRDC’s, 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 the R&E Gateway.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>
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To protect 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 is working with the Office of Personnel Management (OPM) to give users more control of their online profile and extend immediate access to federal government employees and contractors holding valid credentials.

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.
- 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 2014	FY 2015	FY 2016
<p><b>Title:</b> Defense Technical Information Center</p> <p><b>FY 2014 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- As the DoD lead, managed and implemented the primary objectives associated with public access to publications and digital data.</li> <li>-- Developed and finalized implementation plan for Office of Science and Technology Policy (OSTP) and methodology for policy changes.</li> <li>-- Implemented a pilot through Department of Energy to establish an interface to the publishers' database for access to DoD-funded publications, a first step for public access.</li> <li>- Expanded and developed community support, search and analytic capability of DoD Research and Engineering (R&amp;E) Gateway; successfully completed several major enhancements.</li> <li>-- Improved analytic and collaborative capabilities.</li> <li>-- Added group spaces for Air Force A8, Reliance 21, as well as other Communities of Interest (COI) and agencies.</li> </ul>	48.971	45.041	46.027

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

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

	FY 2014	FY 2015	FY 2016
<p>-- Initiated the upgrade of the classified version to the same underlying commercial software version as the unclassified, improving user access in the warfighting community.</p> <p>- Operated and enhanced the Defense Innovation Marketplace, a key component of the Better Buying Power 2.0 initiative.</p> <p>-- Developed and fostered communities of interest (COIs) with the Services, to include C4ISR (C2, ISR, CyberSpace), Nuclear Weapons Enterprise, and Aero Enterprise.</p> <p>-- Increased access controls protecting industry proprietary data.</p> <p>- Conducted the annual Unified Research and Engineering Database (URED) data call ultimately resulting in adding or updating over 6,600 records detailing DoD research in progress.</p> <p>-- Deployed a new search tool to URED, thereby exposing over 28,000 URED records to the user community in a more usable, efficient format.</p> <p>- Deployed the International Agreements Database (IADB) consisting of over 3,400 searchable international agreements from all three services</p> <p>-- Launched in a partnership with the DoD International Cooperation (IC) office and available to all DoD users, IADB creates the capability to research existing partnerships and focuses on agreements supporting current and future planning for international collaboration.</p> <p>- Partnered with the Defense Logistics Agency (DLA) to begin the replacement of a 20+ year old library content management system. Leveraging existing technologies, the new system will support DoD imperatives to increase public access, cyber security, and data consolidation.</p> <p>- Built a proof of concept for a master data repository (MDR), an infrastructure design to move all DTIC collections to one common repository to enable more efficient search and analysis.</p> <p>- Achieved DoD audit readiness milestones and requirements.</p> <p>- Put in place the procurement for the data center IT hardware and software refresh to ensure effectiveness and efficiency with updated technology to service S&amp;T information for DTIC internal and external customers.</p> <p>- Aligned with the DoD Joint Information Environment (JIE) initiative for the Federal Data Center Consolidation Initiatives (FDCCI) by reducing the physical footprint of servers and maximizing virtualization for the DTIC systems and applications that services all of the DoD, industry partners, and academia users.</p> <p><b>FY 2015 Plans:</b></p> <p>- Manage and implement the primary objectives associated with public access to publications and digital data.</p> <p>-- Work with the Defense Basic Research Advisory Group (DBRAG) to initiate policy changes for phase I, intramural basic research projects.</p> <p>-- Explore and identify a monitoring and compliance mechanism; add public access compliance fields to Unified Research and Engineering Database (URED).</p> <p>-- Identify a catalog/locator to track data set locations, and identify potential DoD digital repositories for storage.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

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

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>-- Complete the interface pilot program in partnership with Department of Energy to provide access to DoD-funded publications.</li> <li>- Bolster capabilities of the DoD Research and Engineering (R&amp;E) Gateway based on specific user requirements and usage.</li> <li>-- Engage defense communities and their subject matter experts; work with partners to expand user-provided content and research materials to benefit the DoD mission.</li> <li>-- Promote information sharing and secure collaboration among the 17 DoD science and technology (S&amp;T) communities of interest (COIs) by assisting them with DTIC's collaborative tools.</li> <li>-- Expand technical and budget content available on SIPRNET version.</li> <li>- Evolve and improve 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.</li> <li>-- Capture industry's classified Independent Research and Development (IR&amp;D) and move search collection to the SIPRNET environment.</li> <li>-- Employ the Marketplace for virtual Technical Information Meetings with industry in communities of interest areas.</li> <li>- Deploy new Unified Research and Engineering Database (URED) capabilities for the user community.</li> <li>-- Develop advanced search and visualization capabilities to support both improved data quality and better decision making across the Department.</li> <li>-- Modify and enhance DoD research summaries to capture information related to public access of journal articles and digital data.</li> <li>- Expand 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).</li> <li>- Implement Initial Operating Capability (IOC) for the new DTIC unclassified content management system in the DoD-hosted cloud.</li> <li>-- Determine a solution to securely transfer data between the unclassified and classified content management systems.</li> <li>- Acquire a solution and initiate implementation of consolidated DTIC data collections into one common storage infrastructure (the Master Data Repository) for increased analysis capabilities across the suite of collections.</li> <li>- Strengthen access controls to the DoD Research and Engineering (R&amp;E) Gateway and other DTIC provided tools with the introduction of smart-card login for eligible users within the federal government and defense industry.</li> <li>- Meet DoD's audit readiness milestones and requirements.</li> <li>- Begin the planning and implementation of data center migration to a DoD-CIO approved facility and/or cloud service. Transition public-facing DTIC websites into the commercial cloud.</li> <li>- Implement the data center IT hardware and software refresh, reducing the both the physical footprint and related support costs, while improving system security and reliability.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>- Align with 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.</p> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>-- Implement a catalog/locator to track data set locations.</li> <li>-- Process journal articles, and look into hosting smaller data sets in support of intramural research.</li> <li>-- Begin pilot projects for voluntary submission of contract and grant published articles and data sets.</li> <li>- Evaluate metrics, usage patterns and new user requirements to determine and implement more advanced, integrated capabilities for the DoD Research and Engineering (R&amp;E) Gateway collaboration, search and analytics on the NIPRNET and SIPRNET.</li> <li>-- Expand outreach to the DTIC user community and DoD science and technology (S&amp;T) communities of interest (COIs) by offering onsite briefings, demonstrations and training for the R&amp;E Gateway search and collaborative tools.</li> <li>- 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.</li> <li>-- Employ the Marketplace for virtual Technical Information Meetings with industry in communities of interest areas.</li> <li>- 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.</li> <li>- Implement a reporting and dashboard capability in the International Agreements Database (IADB).</li> <li>- Implement Full Operating Capability (FOC) of DTIC standard library content management system in the DoD-hosted cloud; implement a classified version.</li> <li>-- Consolidate report collection into a DTIC standard input solution, reducing the footprint of multiple technologies and driving efficiencies and cost avoidance.</li> <li>- 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.</li> <li>-- Implement a classified version of the MDR.</li> <li>-- Expand the collections available to DTIC users with an advanced, integrated search on both the NIPRNET and SIPRNET.</li> <li>- Collaborate with the DoD Intelligence community on policy and planning for the implementation of the new Controlled Unclassified Information (CUI) federal marking regulations.</li> <li>- Meet DoD's audit readiness milestones and requirements.</li> <li>- 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.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 001 / <i>Defense Technical Information Center</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
- Plan and implement the data center migration to a DoD-CIO approved cloud service provider, based on final guidance from the Department.			
<b>Accomplishments/Planned Programs Subtotals</b>	48.971	45.041	46.027

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Community Interaction

1) New Registered Users: 13,580

2) Total Unique NIPRNET Users: 23,952

Research Support and Library Repository

1) Scientific and technical information (STI) collected (NIPRNET): 77,391

2) Total STI disseminated, to include competed work reports, work-in-progress summaries, and industry IR&D, digitization requests, and web inquiries

- Access Control Downloads (NIPRNET): 221,928 (+140% increase from FY 2013 levels)

- Public Document Downloads: 35,291,044 (+50% increase from FY 2013 levels)

3) Total STI holdings: 3.9M

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>				<b>Project (Number/Name)</b> 002 / <i>Information Analysis Centers</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
002: <i>Information Analysis Centers</i>	-	7.053	5.748	5.748	-	5.748	5.748	5.748	5.748	5.748	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Information Analysis Centers	7.053	5.748	5.748
<b>FY 2014 Accomplishments:</b>			
- 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; created and provided 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.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p>- Completed IAC Program restructuring to achieve the following objectives:</p> <ul style="list-style-type: none"> <li>-- Created and sustained a focus on the Better Buying Power initiatives to improve affordability, productivity, and standardization within defense acquisition programs.</li> <li>-- Expanded scope to cover areas of emerging importance for the DoD (including energetics, autonomous systems, biometrics, alternative energy, and medical research).</li> <li>-- Increased participation of small business in supporting exchanges of technical and operational information across the DoD.</li> <li>-- Expanded the industrial base – from single vendors to multiple vendors in each technical focus area, lowering cost and improving quality through enhanced competition.</li> </ul> <p>- Awarded small business set-aside contract for Defense Systems Basic Center Operations (BCO), as well as multiple award indefinite delivery, indefinite quantity (IDIQ) contracts for Homeland Defense and Security Technical Area Tasks (TATs) and Defense Systems TATs. Provided over \$1.0 Billion in new opportunities to small business.</p> <p>- Managed and supported TATs ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction.</p> <p>- Began planning for the re-compete of the Software, Networks, Information, Modeling and Simulation (SNIM) contract to a new contract vehicle, Cyber Systems Technical Area Tasks (CS TAT).</p> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Support the DTIC mission to provide technical information to DoD.</li> <li>- 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.</li> <li>- Respond to technical inquiries and provide in-depth science and technology (S&amp;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.</li> <li>- Manage and support TATs ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction.</li> <li>- Finalize acquisition strategy for the re-compete of the SNIM contract to Cyber Systems Technical Area Tasks (CS TAT).</li> <li>- Effectively manage a 217 percent workload increase by transitioning 326 existing TATs from legacy contracts (CBRNIAC, WSTIAC, SURVIAC) to multi-award contracts (on top of the approximately 150 new TATs awarded annually).</li> <li>- Establish a Technology Domain Awareness (TDA) initiative to leverage commercial innovation having defense applications by re-using scientific and technical information in the development and support of DoD weapons systems prototypes.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Support the DTIC mission to provide technical information to DoD.</li> <li>- 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.</li> </ul>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Respond to technical inquiries and provide in-depth science and technology (S&amp;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.</li> <li>- Manage and support TATs ordered by the DoD and non-DoD customers; provide program strategy and ensure alignment with Department goals/direction.</li> <li>- Plan for the acquisition and re-compete of the Software, Networks, Information, Modeling and Simulation (SNIM) contract.</li> <li>- Effectively manage a 144 percent workload increase by transitioning 216 existing TATs from legacy contracts (SENSIAC, RIAC, AMMTIAC) to multi-award contracts (on top of the approximately 150 new TATs awarded annually).</li> <li>- Complete award of new multi-award contract for CS TAT.</li> <li>- Further build out the Technology Domain Awareness (TDA) initiative by formalizing relationships with non-traditional industry partners to accelerate future technology innovation in the areas of Homeland Defense, Cyber Systems, and Defense Systems.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	7.053	5.748	5.748

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Number of:

- IAC web inquiries: 3,577,707 for FY14
- IAC technical inquiries: 4,484 for FY14
- STI documents added to IAC collection: 30,798 for FY14 (up 14% from FY13)
- STI documents generated by Technical Area Tasks (TAT) activities: 6,895 for FY14
- Training or meeting events: 1,381 for FY14 (up 44% from FY13)
- Number of training attendees: 7,390 for FY14
- Documents uploaded to DTIC's online repository: 37,263 for FY14 (up 82% from FY13)

Amount of funding:

- Provided by external customer requesting IAC technical analysis (TAT Funding): \$1.82 Billion for FY14 (up 18% from FY13)
- Provided by external customers purchasing IAC information products (Non-TAT funding): \$434,469 for FY14

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Technical Information Center		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605801KA / <i>Defense Technical Information Center</i>	<b>Project (Number/Name)</b> 002 / <i>Information Analysis Centers</i>

Customer satisfaction regarding:  
- IAC products and technical inquiry support (scale of 1 to 5, 5 being best): 4.8 for FY14  
- IAC TATs and training (scale of 1 to 5, 5 being best): 4.8 for FY14

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Defense Threat Reduction Agency**

*Defense Wide Justification Book Volume 5 of 5*

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

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Defense Threat Reduction Agency • President's Budget Submission FY 2016 • RDT&E Program

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### Exhibit R-1, RDT&E Programs Defense Threat Reduction Agency Fiscal Year 2016-2020 Budget Estimates

**Appropriation: RDT&E, Defense-Wide**

**Date: February 2015**

#### **OVERVIEW**

The Defense Threat Reduction Agency (DTRA) is the Department of Defense's (DoD) Combat Support Agency and Defense Agency for countering weapons of mass destruction (CWMD).

DTRA safeguards the United States and its allies from global Weapons of Mass Destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly reflects several national and Department of Defense guidance/vision documents. For Research, Development, Test and Evaluation (RDT&E), these documents include the National Security Strategy, 2012 Defense Strategic Guidance (*Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*), 2014 Quadrennial Defense Review, National Strategy for Combating Terrorism, National Strategy for Countering Biological Threats, National Strategy for Biosurveillance, 2014 DoD Strategy for Countering WMD, and the 2010 Nuclear Posture Review.

DTRA's RDT&E budget request responds to warfighter needs and supports DTRA's chartered responsibilities and national commitments across the chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) spectrum. DTRA identifies and conducts innovative CWMD-related RDT&E to deliver products and services to the Combatant Commanders (CCDRs) and the Armed Services. The Agency's RDT&E portfolio includes a range of activities from basic research through system development and demonstration to deliver new CWMD technologies and capabilities to the warfighter. DTRA investigates, develops, and demonstrates innovative technologies and capabilities to actively counter or mitigate the full spectrum of CBRNE threats and/or effects; enhances the safety, security, survivability, and performance of U.S. nuclear assets and facilities; protects the warfighter from conventional or genetically engineered biological threats; preserves the warfighter's mission capability through physical and medical protection against chemical and biological agents; and executes quick reaction R&D projects that support combating and countering WMD initiatives. DTRA fosters and enables farsighted, high-payoff research focused on the unique challenges related to reducing, eliminating, countering, and mitigating the effects of WMD, and provides a robust fundamental knowledge base and understanding in the CWMD-related sciences.

The DTRA RDT&E portfolio is directly aligned to the Office of Management and Budget (OMB) and Office of Science and Technology Policy (OSTP) Science and Technology Priorities for FY 2016. In a memorandum dated July 18, 2014, OMB and OSTP outlined eight (8) multi-agency R&D priorities. The entire DTRA RDT&E portfolio directly supports the "National and Homeland Security" priority. While the DTRA portfolio indirectly supports other priorities, DTRA's CWMD mission is completely aligned with the "National and Homeland Security" priority, and all projects and programs in the FY 2016 RDT&E budget submission are conceived, implemented and managed to support this mission space.

Real purchasing power has declined over the past three years, thus requiring DTRA to focus on finding more efficiencies to achieve mission goals. The FY 2016 RDT&E budget submission seeks to balance long-term strategic priorities with increased present-day CWMD requirements and provides an objective, responsible path forward.

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

07 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
1	0601000BR	DTRA Basic Research Initiative	01	44,783	37,778		37,778	38,436		38,436	U
		Basic Research		44,783	37,778		37,778	38,436		38,436	
21	0602718BR	Weapons of Mass Destruction Defeat Technologies	02	151,669	151,443		151,443	155,415		155,415	U
		Applied Research		151,669	151,443		151,443	155,415		155,415	
28	0603160BR	Counterproliferation Initiatives - Proliferation Prevention and Defeat	03	282,719	291,694		291,694	290,654		290,654	U
		Advanced Technology Development		282,719	291,694		291,694	290,654		290,654	
121	0605000BR	Weapons of Mass Destruction Defeat Capabilities	05	12,511	6,887		6,887	7,156		7,156	U
		System Development And Demonstration		12,511	6,887		6,887	7,156		7,156	
151	0605502BR	Small Business Innovation Research	06	9,700							U
		Management Support		9,700							
Total Research, Development, Test & Eval, DW				501,382	487,802		487,802	491,661		491,661	

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***Budget Activity 01: Basic Research***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

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***Budget Activity 02: Applied Research***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

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21	02	0602718BR	WMD Defeat Technologies.....	Volume 5 - 563

***Budget Activity 03: Advanced Technology Development (ATD)***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***

.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
28	03	0603160BR	Counterproliferation Initiatives - Proliferation, Prevention and Defeat.....	Volume 5 - 599

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***Budget Activity 05: System Development & Demonstration (SDD)***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***  
.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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***Budget Activity 06: RDT&E Management Support***  
***Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide***  
.....

<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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**Program Element Table of Contents (Alphabetically by Program Element Title)**

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DTRA Basic Research Initiative	0601000BR	1	01.....	Volume 5 - 557
Small Business Innovation Research	0605502BR	151	06.....	Volume 5 - 649
WMD Defeat Capabilities	0605000BR	121	05.....	Volume 5 - 633
WMD Defeat Technologies	0602718BR	21	02.....	Volume 5 - 563

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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 Weaponering 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

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>					<b>R-1 Program Element (Number/Name)</b>							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 1: Basic Research</i>					PE 0601000BR / <i>DTRA Basic Research Initiative</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	134.637	44.783	37.778	38.436	-	38.436	38.783	39.463	40.134	40.937	Continuing	Continuing
<i>RU: Fundamental Research for Combating WMD</i>	134.637	44.783	37.778	38.436	-	38.436	38.783	39.463	40.134	40.937	Continuing	Continuing

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

The mission of the Defense Threat Reduction Agency (DTRA) is to safeguard the United States and its allies from global weapons of mass destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly aligns with several national and Department of Defense (DoD) level guidance/vision documents. For Research, Development, Test & Evaluation (RDT&E), these documents include the National Security Strategy, Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), 2014 Quadrennial Defense Review, National Strategy for Countering Terrorism, National Strategy to Combat WMD, Defense Planning Guidance, Guidance for Employment of the Force, 2014 DoD Strategy for Countering WMD, National Military Strategic Plan for the War on Terrorism, and Joint Strategic Capabilities Plan (including the Nuclear Annex). To achieve this mission, the DTRA has established strategies and tasks to meet the principal objectives of the above referenced documents. These objectives are: 1) Ensure a safe, secure, and effective nuclear deterrent; 2) Anticipate emerging WMD threats; 3) Provide Combating WMD situational awareness; 4) Assess infrastructure and personnel vulnerabilities; 5) Prevent proliferation and use of WMD; 6) Defend against WMD threats; 7) Defeat WMD threats; 8) Recover from WMD consequences; and 9) Synchronize countering WMD activities.

The Basic Research Initiative provides for the discovery and development of fundamental knowledge and understanding by research performers comprised from academia and world-class research institutions in Government and industry. This leverages the DoD's \$2 billion plus annual investment in basic research by ensuring a motivation within the scientific community to conduct research benefiting WMD-related defense missions and by 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 chemical/biological basic research program under DoD's Chemical and Biological Defense Program. DTRA's research interests are coordinated with the Defense Advanced Research Projects Agency and the Services' basic research programs through the Defense Basic Research Advisory Group. DTRA reviews research interests annually to focus on technological areas which are not clearly addressed by other basic research efforts.

DTRA's Basic Research portfolio supports several National and DoD initiatives directly related to Countering WMD (CWMD) including: Office of Science and Technology Policy Nuclear Defense Research and Development Roadmap, FY 2013-2017; Defense Budget Priorities and Choices for FY 2014; Countering Weapons of Mass Destruction Science and Technology Priority Steering Council Roadmap; 2012 Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), and the 2014 Quadrennial Defense Review. In general, these documents direct 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 foes, whether they are states, networks, or individuals; defeating WMD agents; researching biologically-based or inspired materials for DoD applications; and leveraging science, technology, and

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 1: <i>Basic Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research Initiative</i>
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innovation through domestic and international partnerships and agreements. Basic research supporting all of these needs is included in this program element under Project RU-Fundamental Research for Combating WMD. Details are provided in the R-2a exhibit.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	45.837	37.778	38.436	-	38.436
Current President's Budget	44.783	37.778	38.436	-	38.436
Total Adjustments	-1.054	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.054	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 1					<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / DTRA Basic Research Initiative				<b>Project (Number/Name)</b> RU / Fundamental Research for Combating WMD			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RU: <i>Fundamental Research for Combating WMD</i>	134.637	44.783	37.778	38.436	-	38.436	38.783	39.463	40.134	40.937	Continuing	Continuing

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

This project provides for the discovery and development of fundamental knowledge and understanding by research performers drawn primarily from academia and world-class research institutions in government and industry. This leverages the Department of Defense's (DoD's) \$2 billion plus annual investment in basic research by ensuring a motivation within the scientific community to conduct research benefiting weapons of mass destruction (WMD) related defense missions and by improving knowledge of research efforts that benefit nonproliferation, counter proliferation, and consequence management efforts. These efforts are closely coordinated with the DTRA's Chemical and Biological Technologies Department initiatives which execute a chemical/biological basic research program under the DoD Chemical and Biological Defense Program. The DTRA's research interests are coordinated with the Defense Advanced Research Projects Agency and the Services' basic research programs through the Defense Basic Research Advisory Group. DTRA reviews research interests annually to focus on technological areas which are not clearly addressed by other basic research efforts.

This project supports several national and Department initiatives directly related to countering WMD including: Office of Science and Technology Policy, Nuclear Defense Research and Development Roadmap, FY 2013-2017; Defense Budget Priorities and Choices for FY 2014; Countering Weapons of Mass Destruction Science and Technology Priority Steering Council Roadmap; 2012 Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), and the 2014 Quadrennial Defense Review. In general, these documents direct capability enhancements, projects, and Science and Technology (S&T) investments that support Countering WMD (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 DoD applications; and leveraging science, technology, and innovation through domestic and international partnerships and agreements. Specific activities for Project RU include: Sensing and Recognition – Generation of information that provides knowledge of the presence, identity, and/or quantity of material or energy in the environment that may be significant; Network Sciences – Enhance fundamental knowledge of theory, representations, and mapping to improve the WMD-related robustness, resiliency, recovery of, and informational and operational utility associated with and derived from, complex disparate but interdependent networks; Protection Sciences – Advance knowledge for protection of personnel, resources, sensitive systems and infrastructure from WMD; Sciences to Defeat WMD – Phenomena that improves success of defeat actions (use of weapons) including explosives, accessing and defeating target WMDs, such as biological agents and weapons modeling; and Sciences to Secure WMD – Improve understanding of phenomena for verification and compliance with treaties, including test detection. Additional activities for Project RU include the discovery of revolutionary control methods to monitor and secure components, materials, and weapons, and disrupt proliferation pathways; and cooperative research with global partners – research to reduce the global threat of WMD in collaboration with a broad range of international partners. Finally, this project supports and administers the Cooperative Biological Engagement Program for academic engagements which has the core goals of securing dangerous pathogens, promoting open and active disease reporting and response, advancing transparent research to understand pathogens, and developing potential countermeasures.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 1	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / <i>DTRA Basic Research Initiative</i>	<b>Project (Number/Name)</b> RU / <i>Fundamental Research for Combating WMD</i>
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The decrease from FY 2014 to FY 2015 reflects a reduced effort in combating WMD basic research resulting in reductions to the number of active basic research awards. The increase from FY 2015 to FY 2016 maintains the investment in basic research to keep pace with inflation.

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

	FY 2014	FY 2015	FY 2016
<p><b>Title:</b> Project RU: Fundamental Research for Combating WMD</p> <p><b>Description:</b> This project provides for the discovery and development of fundamental knowledge and understanding by research performers drawn primarily from academia and world-class research institutions in government and industry.</p> <p><b>FY 2014 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- Managed over 200 active basic research awards on a three to five year cycle. The Agency's Basic Research portfolio continued the CWMD grand challenge for the DoD.</li> <li>- Supported the development of the future Science, Technology, Engineering and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories.</li> <li>- Conducted an annual technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives, to foster collaboration, and build relationships within the scientific community.</li> <li>- Conducted an annual external panel review of the basic research program open to DoD research stakeholders. The panel assessed the focus and scope of the program with respect to the CWMD challenges, and assessed the coordination of CWMD basic research across DoD mission space and across the broader basic research community to avoid unintended duplication and to ensure successful partnerships.</li> <li>- Developed new model that optimizes timing of treaty inspections based on the probability of detecting relevant isotopes.</li> <li>- Developed new formulations that in small scale testing showed an order of magnitude increase in ability to eliminate chemical and biological agents. Identified for potential use in the next generation counter-WMD weapons.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- 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&amp;T priority and supports the DoD S&amp;T Priorities on Autonomy, Data to Decisions, Electronic Protection, and Engineered Resilient Systems.</li> <li>- Support the development of the future Science, Technology, Engineering, and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories.</li> <li>- 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.</li> <li>- Conduct an annual external panel review of the basic research program which will be open to DoD research stakeholders. The panel will assess the focus and scope of the program with respect to the CWMD challenges and assess the coordination of</li> </ul>	44.783	37.778	38.436



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 1	<b>R-1 Program Element (Number/Name)</b> PE 0601000BR / DTRA Basic Research Initiative	<b>Project (Number/Name)</b> RU / Fundamental Research for Combating WMD

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>CWMD basic research across the DoD mission space and across the broader basic research community to avoid unintended duplication and ensure successful partnerships.</p> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Manage over 150 active basic research awards on a three to five year cycle. The Agency's Basic Research portfolio directly addresses the DoD Combating WMD S&amp;T priority and supports the DoD S&amp;T Priorities on Autonomy, Data to Decisions, Electronic Protection, and Engineered Resilient Systems.</li> <li>- Support the development of the future Science, Technology, Engineering, and Mathematics workforce by supporting world-class talent in WMD research at universities and laboratories.</li> <li>- Conduct an annual technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives, to foster collaboration and build relationships within the scientific community.</li> <li>- Conduct an annual external panel review of the basic research program which will be 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.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	44.783	37.778	38.436

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: WMD Defeat Technologies	0.919	-	-	-	-	-	-	-	-	-	Continuing Continuing

**Remarks**

**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 research organizations participating, and percentage of participating universities on the U.S. News & World Report "Best Colleges" list.

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Threat Reduction Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	533.226	151.669	151.443	155.415	-	155.415	160.701	162.605	166.110	169.427	Continuing	Continuing
RA: <i>Information Sciences and Applications</i>	112.074	21.879	28.785	29.949	-	29.949	32.901	32.365	32.780	33.433	Continuing	Continuing
RD: <i>Detection Technologies</i>	0.000	-	-	26.401	-	26.401	26.893	27.430	28.039	28.600	Continuing	Continuing
RE: <i>Counter-Terrorism Technologies</i>	5.016	1.698	-	-	-	-	-	-	-	-	Continuing	Continuing
RF: <i>Forensics Technologies</i>	130.610	34.595	35.061	9.547	-	9.547	10.128	10.443	10.684	10.899	Continuing	Continuing
RG: <i>Defeat Technologies</i>	47.857	14.270	10.982	11.769	-	11.769	11.395	11.700	11.965	12.203	Continuing	Continuing
RI: <i>Nuclear Survivability</i>	57.264	20.351	19.416	29.988	-	29.988	30.264	30.826	31.592	32.224	Continuing	Continuing
RL: <i>Nuclear &amp; Radiological Effects</i>	67.069	31.754	32.352	23.053	-	23.053	23.769	23.899	24.308	24.794	Continuing	Continuing
RM: <i>WMD Counterforce Technologies</i>	52.370	14.660	13.787	13.526	-	13.526	13.642	13.958	14.427	14.714	Continuing	Continuing
RR: <i>Combating WMD Test and Evaluation</i>	40.575	11.543	11.060	11.182	-	11.182	11.709	11.984	12.315	12.560	Continuing	Continuing
RU: <i>Fundamental Research for Combating WMD</i>	20.391	0.919	-	-	-	-	-	-	-	-	-	21.310

**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**

The mission of the Defense Threat Reduction Agency (DTRA) is to safeguard the United States and its allies from global weapons of mass destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly aligns with several national and Department of Defense (DoD) level guidance/vision documents. For Research, Development, Test & Evaluation (RDT&E), these documents include the National Security Strategy, Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), 2014 Quadrennial Defense Review, National Strategy for Combating Terrorism, 2014 DoD Strategy for Countering WMD, National Strategy to Combat WMD, Defense Planning Guidance, Guidance for Employment of the Force, 2006 National Military Strategy for Combating WMD, National Military Strategic Plan for the War on Terrorism, and Joint Strategic Capabilities Plan (including the Nuclear Annex). To achieve this mission, DTRA has established strategies and tasks to meet their principal objectives. These objectives are: 1) Ensure a safe, secure, and effective nuclear deterrent; 2) Anticipate emerging WMD threats; 3) Provide Combating WMD situational awareness; 4) Assess infrastructure and personnel

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>
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vulnerabilities; 5) Prevent proliferation and use of WMD; 6) Defend against WMD threats; 7) Defeat WMD threats; 8) Recover from WMD consequences; and 9) Synchronize countering WMD activities.

A focused and strong WMD threat reduction technology base is critical to meeting these objectives. This technology base is closely tied with the operational support programs that make up DTRA's combat support mission. DTRA's has taken the steps to develop this technology base and provide a foundation for transformational activities within the WMD arena.

Activities funded by Program Element 0602718BR implement a wide set of National Security Presidential Directive 17 and emerging Presidential Policy Directive guidance for prevention of proliferation of WMD and WMD terrorism. Projects support the prevention and adversary use of WMD through the development of technology to locate and identify nuclear threats, post-detonation forensics, and treaty verification. Through development of new sensor systems, sensor networks, counterforce and fundamental Counter-WMD (CWMD) research, these programs contribute to securing and interdicting WMD, WMD delivery systems, and related materials. Finally, programs in this area fund the development of tools for the DTRA Technical Reachback analysis center which supports United States and allied forces, interagency, and civil authorities with 24 hour/7 days per week Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) event analysis support.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	156.111	151.737	154.537	-	154.537
Current President's Budget	151.669	151.443	155.415	-	155.415
Total Adjustments	-4.442	-0.294	0.878	-	0.878
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.442	-			
• Realignment	-	-	0.878	-	0.878
• FFRDC	-	-0.294	-	-	-

**Change Summary Explanation**

The increase in FY 2016 from the previous President's Budget submission is due to realignments for increased investment in advanced analytics and effects modeling.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RA / Information Sciences and Applications			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RA: <i>Information Sciences and Applications</i>	112.074	21.879	28.785	29.949	-	29.949	32.901	32.365	32.780	33.433	Continuing	Continuing

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

The RA project provides (1) advanced data analytics, knowledge management, and systems engineering support across all other projects, (2) innovative counterproliferation Research & Development (R&D), (3) Technical Reachback support on weapons of mass destruction (WMD) effects and consequences, (4) collaborative Counter WMD (CWMD) analysis capabilities between Department of Defense (DoD) and key interagency and international partners through a globally accessible net-centric framework, and (5) other research activities that benefit the public through analysis and engagement to reduce and counter the threats posed by WMD via the Project on Advanced Systems and Concepts for Countering WMD at the Naval Postgraduate School. The advanced analytics program provides systems engineering and R&D with requirements, technology, architecture analyses, and proof-of-principle capabilities necessary for making decisions on strategic planning, R&D investments, new initiatives, cooperation, ventures with new customers, and accomplishment of high-level, short notice special projects. The innovative counterproliferation effort conducts R&D to investigate, identify, develop, and transition short term, high payoff technologies from the DTRA, other government agencies, industry, academia, and international Science and Technology (S&T) partners into DTRA's, and others R&D programs, and to end user organizations. The Technical Reachback effort provides 24 hour/7 days per week information and analyses on potential impacts of WMD events to warfighters and first responders in consult with the DTRA's CWMD R&D subject matter experts. Net-centric modeling access and support provides a real-time accessible framework which enables DTRA's Chemical, Biological, Radiological, and Nuclear (CBRN) Modeling & Simulation codes to provide an integrated suite of CWMD decision support capabilities. This project also provides support to international CWMD S&T cooperation including the development of modifications and improvements to new technologies and information tools suitable for foreign release and cooperative efforts. Other research activities via analysis and engagement include collaborating with scientific, technical, and social science faculty/experts to help understand and anticipate future WMD capabilities. This effort also provides management and support of the Threat Reduction Advisory Committee which provides independent expert advice to the Secretary of Defense on CWMD.

The increase from FY 2014 to FY 2015 is due to increased investment in advanced analytics, modeling and simulation (M&S), and hazardous effects characterization while reducing investment in systems engineering collaboration with external partners/customers. The increase from FY 2015 to FY 2016 is due to increased investment in advanced analytics and M&S.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RA: Information Sciences and Applications	21.879	28.785	29.949
<b>Description:</b> Project RA develops innovative technologies and modeling and simulation capabilities; collaborative net-centric Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) modeling access and support capabilities between DoD and key interagency and international partners; provides Technical Reachback support for the United States and our allies through improved situational understanding across the complete CWMD mission space; and funds research activities			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

that benefit the public through analysis and engagement to reduce and counter the threats posed by WMD via the Project on Advanced Systems and Concepts for Countering WMD (PASCC) at the Naval Postgraduate School (NPS).

***FY 2014 Accomplishments:***

- Continued to solicit innovative research projects for developing new technologies and increased end-user capabilities to support “Data to Decisions” S&T development.
- Provided Open Innovation and Technology Watch/Scouting in support of “Data to Decisions” S&T development for the DoD and other government agencies.
- Via NPS/PASCC with support from National Defense University (NDU), completed 23 projects in five broad mission areas. This entailed global analyses of nuclear decision making, preventing escalation during nuclear wars, missile deterrence, non-proliferation, attribution marking for chemical and biological weapons use, and understanding the biological weapons convention. This further entailed eight international strategic dialogues in WMD with partners from Europe, the Middle East, South Asia, Russia, China and Singapore.
- Supported the Next Generation Nuclear Scholars (NGNS) initiative through four engagements that provided scholars with invaluable insight and discourse on a myriad of nuclear issues.
- Provided strategic advice and management oversight of logistics and operations for the Threat Reduction Advisory Committee. Conducted four full plenary/full committee sessions in 2014, augmented by 18 preparatory groups. This include priorities approved by the Undersecretary of Defense for Acquisition, Technology and Logistics in Global Health Security, Nuclear Strategic Stability, structure of the Chemical, Biological Defense Program, strategic guidance for the stand-up of the new WMD early, indications and warning capability (Constellation Program), and integral strategic advice pertaining to the destruction of chemical weapons and precursor chemicals in the Levant Region.
- Continued requirements and gap analyses to enable R&D efforts to meet CWMD capability gaps.
- Continued development on next generation capabilities for “real-time” reachback supporting radiological search and visualization; tested mesh network of hand-held radios to support radiation sensor data fusion during the 2014 Boston Marathon.
- Delivered initial smartphone based simulation training system to enable teams to practice for radiological search missions without requiring deployment of real radiological sources and sensors.
- Continued modifications and capability improvements to vulnerability assessment software and integrated WMD toolsets to contribute to new CWMD cooperative technology efforts.
- Continued activities to implement Full Operational Capability for Mission Domain Information Technology architecture.
- Made improvements to the DTRA Integration, Test and Experimentation Center.
- Provided systems engineering support to numerous DTRA R&D programs, projects, and activities, to include nuclear detection activities, innovative new technologies, modeling and simulation activities, and R&D strategic planning efforts.
- Continued to upgrade and manage the R&D portfolio management software tool for use across all DTRA R&D programs, projects, and activities.

<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> <i>RA / Information Sciences and Applications</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p>- Developed and modernized a Global Knowledge Management Capability (GKMC) (subsequently integrated into the Constellation Program) software tool for Office of the Secretary of Defense (OSD) level and other users.</p> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Create 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.</li> <li>- Integrate first principle blast and nuclear fallout codes into the DoD/DHS/DOE radiation particle transport code suite.</li> <li>- Deploy the Constellation software tool for OSD level and other users, providing an integrated unclassified CWMD collaboration environment supporting U.S. and Allied capabilities and CWMD situational awareness.</li> <li>- Develop and deploy enhanced geospatial and synthetic population services supporting more rapid Consequence of Execution and Consequence Management predictive modeling and Reachback support.</li> <li>- Support the DTRA exploratory development and initial real-time collaborative CBRNE integrated deployment framework.</li> <li>- Implement the FY 2014 developed design for a common information science and deployment environment, supporting training, operations, and mission support of CBRNE assessment for primary, secondary, and tertiary effects.</li> <li>- Conduct strategic analyses and assessments on emerging WMD threats using various strategic research methodologies.</li> <li>- Continue to manage and support the Threat Reduction Advisory Committee.</li> <li>- Conduct activities in support of leveraging cloud capabilities and demonstrate prototype capabilities.</li> <li>- Demonstrate initial information technology (IT) capabilities in support of achieving highly automated fusion and dissemination of comprehensive data necessary for providing global combating weapons of mass destruction situational awareness.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Develop environmental degradation parameters of airborne chemical agents to better characterize collateral effects after a strike on a WMD facility.</li> <li>- In support of the United States Strategic Command (USSTRATCOM), develop capabilities to support analysis of higher order effects, such as infrastructure and economic impacts, from nuclear targeting.</li> <li>- Develop high fidelity Force-on-Force (phenomenology and effects) computational modeling and simulation capabilities integrated with real and virtual sensor responses.</li> <li>- Leverage commercial graphical processor technologies to enable near real-time high fidelity radiation transport calculations.</li> <li>- Integrate new first principle high fidelity blast and nuclear fallout codes into the DoD/DHS/DOE radiation particle transport code suite.</li> <li>- Deploy automated methods to consolidate multiple geospatial terrain types into a single virtual globe capable of supporting multiple modeling and simulation platforms.</li> <li>- Build a CWMD sensor framework with the Night Vision Laboratory to enable real-time data fusion of deployed sensors with modeling and simulation tools.</li> </ul>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> <i>RA / Information Sciences and Applications</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- 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.</li> <li>- 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.</li> <li>- Develop high fidelity radiation detection trainer technologies utilizing mobile devices and augmented reality displays to enable training with virtual radiation source surrogates.</li> <li>- 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.</li> <li>- 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.</li> <li>- Support advanced topics research including CWMD object-based intelligence, computational reasoning, and knowledge management tool development and testing.</li> <li>- 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.</li> <li>- Support the cross-DTRA Advanced Analytics Hard Problem Research Team which coordinates analytic science activities across the Agency.</li> <li>- Support the rapid development of secure software and toolsets through code vulnerability analysis.</li> <li>- Continue activities in support of leveraging evolving Department and commercial cloud capabilities and services.</li> <li>- Continue to develop and mature IT capabilities in support of achieving highly automated fusion and dissemination of comprehensive data necessary for providing global combating weapons of mass destruction situational awareness.</li> <li>- Continue to conduct strategic analyses and assessments on emerging WMD threats using various strategic research methodologies.</li> <li>- Bring scientific, technical, and social science faculty/experts together and to look into the future and help understand and anticipate WMD capabilities and the technology needed to combat those capabilities.</li> <li>- Continue to manage and support the Threat Reduction Advisory Committee.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	21.879	28.785	29.949

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	0.107	-	12.244	-	12.244	11.501	11.397	12.839	13.085	Continuing	Continuing



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies	<b>Project (Number/Name)</b> RA / Information Sciences and Applications
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 151/0605502BR: <i>Small Business Innovation Research</i>	9.700	-	-	-	-	-	-	-	-	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 Department of Energy National Laboratories. For efforts associated with the Project on Advanced Systems and Concepts for Countering WMD/ Naval Postgraduate School, DTRA utilizes an annual, competitive Broad Agency Announcement to select the best WMD research topics and engagements.

**E. Performance Metrics**

- Number of customer requests for data analysis compared to historical level.
- Number of changes to investments based on systems engineering analyses.
- Number of exercises and operations supported.
- Number of Defense Acquisition Workforce Improvement Act certified systems engineers.
- New capabilities delivered and transitioned to operational capabilities.
- Mission Enclave computing environment moves from development to Initial Operational Capability (IOC).
- Mission Enclave moves from IOC to Full Operational Capability.
- Segment architectures for the Mission Enclave and supported mission systems.
- Integrated segment architectures into the DTRA Enterprise Architecture.
- Development of network modeling and system-in-the-loop testing capabilities within the DTRA Integration, Test and Experimentation Center.
- Timely delivery of updated DTRA WMD force-on-force and radiation particle transport code to the development team and external customers
- Number of project agreements/interactions with foreign partners and Allies.
- Number of users of Advanced Analytics tools deployed through the Advanced Analytics Program.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RD / Detection Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RD: <i>Detection Technologies</i>	-	-	-	26.401	-	26.401	26.893	27.430	28.039	28.600	Continuing	Continuing

**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**

The detection mission is to conduct Research, Development, Test, & Evaluation (RDT&E) 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 combating 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.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> RD: Detection Technologies	-	-	26.401
<b>Description:</b> Conducts RDT&E to detect, locate, identify, track, and interdict nuclear and radiological threats, which include weapons, material, and enablers to acquisition and development such as nuclear expertise, financing, or unique technologies. These efforts support DoD requirements for combating terrorism, counter/nonproliferation, and homeland defense.			
<b>FY 2016 Plans:</b>			
- 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 which 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.			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RD / <i>Detection Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
- Investigate organic semiconductors and photo-detectors to improve detection system performance.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	26.401

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	-	-	29.893	-	29.893	29.689	30.137	30.832	31.447	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 the Department of Energy National Laboratories, DoD Laboratories, and DoD Services.

**E. Performance Metrics**

- Identification of three nuclear threat signatures that can be operationalized/exploited.
- Transition of two algorithms/tools to the analyst community for testing and evaluation.
- Delivery of neutron detection testing campaign final report.
- Final military utility assessment of active interrogation testing.
- Disposition of active interrogation test and evaluation equipment/infrastructure.
- Delivery of modeling results for a classified detection system for prototype development.
- Delivery of high-resolution focal plane for incorporation into three-dimensional gamma imaging to increase detector sensitivity.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RE / Counter-Terrorism Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RE: <i>Counter-Terrorism Technologies</i>	5.016	1.698	-	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> RE: Counter-Terrorism Technologies	1.698	-	-
<b>Description:</b> Project RE provides R&D support to Joint U.S. Military Forces, specifically USSOCOM, in the areas of Explosive Ordnance Disposal (EOD) Device Defeat; Counter WMD (CWMD) technologies for warfighters; the USSOCOM Combating WMD – Terrorism Support Program; and oversight of counterproliferation R&D resources sent directly to USSOCOM for warfighter-unique counterproliferation technologies.			
<b>FY 2014 Accomplishments:</b> Conducted signatures collection campaign at Nevada National Security Site benefiting seventy interagency participants.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.698	-	-

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	109.679	116.630	104.628	-	104.628	106.132	108.171	110.182	112.388	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**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 reduces the number of current gaps in Special Operations Forces capabilities to counter weapons of mass destruction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RF / Forensics Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RF: <i>Forensics Technologies</i>	130.610	34.595	35.061	9.547	-	9.547	10.128	10.443	10.684	10.899	Continuing	Continuing

**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 attribution process through development, demonstration, and transition of improved post-detonation National Technical Nuclear Forensics (NTNF) capabilities in the areas of materials collection, debris diagnostics, materials analysis, prompt diagnostics, and device reconstruction. Starting in FY 2016, detection-related technologies transition to Project RD (Detection Technologies). Project RF includes Research, Development, Test, & Evaluation (RDT&E) to detect, locate, identify, track, and interdict nuclear and radiological threats. This includes weapons, material, and enablers to their acquisition, and development such as nuclear expertise, financing, or unique technologies. These efforts support Department of Defense (DoD) requirements for combating terrorism, counter/nonproliferation, and homeland defense.

The increase from FY 2014 to FY 2015 is due to increased investments in both nuclear detection Intelligence, Surveillance and Reconnaissance efforts and nuclear forensics. 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RF: Forensics Technologies	34.595	35.061	9.547
<b>Description:</b> Through FY 2015, Project RF develops technologies, systems and procedures for post detonation nuclear forensics and to detect, locate, identify, track, and interdict nuclear and radiological threats, which include not only weapons and material, but enablers to their acquisition and development such as nuclear expertise, financing, or unique technologies in support of DoD requirements for combating terrorism, counterproliferation and nonproliferation, homeland defense, and international initiatives and agreements. Beginning FY 2016 Project RF becomes Forensics Technologies, developing technologies, systems, and procedures for post detonation nuclear forensics.			
<b>FY 2014 Accomplishments:</b>			
- Developed, (accelerated development where appropriate), demonstrated, and fielded (prototype) upgraded technical capabilities for prompt diagnostics (under DISCREET OCULUS and MINIKIN ECHO), debris sample collection, sample analysis, modeling to support nuclear device reconstruction, and forensics data to lower uncertainties/increase confidence and improve timeliness of technical nuclear forensics conclusions. Included development of new debris collection, field analysis concepts, improved in-laboratory timelines, new signature development, improved modeling and simulation capabilities, and other supporting technologies.			
- Developed methods to rapidly determine post-event nuclear weapon yields and reaction history by investigating alternative prompt nuclear weapons effects, effects on the environment, and developing/fielding prototype capabilities.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Identified all-source nuclear threat signatures, characteristics, and corresponding detection modalities; identified 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.</li> <li>- Developed and improved an advanced algorithm to increase the speed, accuracy, and reliability of isotope identification in fielded hand-held and portable detectors.</li> <li>- Conducted testing and evaluation of a photon Bremsstrahlung capability for active interrogation of Special Nuclear Material (SNM) in order to determine possible military utility.</li> <li>- Researched and developed a new, high resolution gamma-ray imaging and isotope identification prototype.</li> <li>- Researched and developed new detector materials that improve the capability to detect, locate, and identify Special Nuclear Materials.</li> <li>- Developed and demonstrated novel and advanced neutron detection technologies as alternatives to Helium-3-based neutron detectors.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete initial development of two neutron detection materials as alternatives to helium-3 neutron detectors</li> <li>- Complete development of room-temperature high-resolution gamma imaging detector electronics and semiconductor materials.</li> <li>- Research and develop new detector materials to improve the capability to detect, locate, and identify Special Nuclear Materials.</li> <li>- Improve the manufacturing readiness level by maturing technologies, designs, and production processes.</li> <li>- Execute robust and operationally relevant testing and evaluation of developmental radiation detection systems in order to determine and select the best performing technologies and techniques for further development and transition to user groups.</li> <li>- Demonstrate and field methods to remotely monitor small and wide areas.</li> <li>- Progress development of 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.</li> <li>- Research, develop, test, and evaluate software tools and capabilities to locate and identify the signatures of Special Nuclear Materials on both existing and newly developed hardware platforms.</li> <li>- Enhance algorithms to increase speed and reliability of isotope identification in fielded portable radiation detectors.</li> <li>- Begin testing, evaluation, and selection of best-performing developed software tools and algorithms to improve user capabilities and extend capabilities of existing radiation detection technologies.</li> <li>- Field an advanced detection algorithm to improve capabilities to detect, locate, and identify threat materials.</li> <li>- Continue identifying comprehensive all-source nuclear threat signatures, characteristics, and corresponding detection modalities; continue the identification and development of the proper tipping, queuing, data fusion techniques, and algorithms to enable the rapid and effective accumulation of all-source intelligence on nuclear threat scenarios.</li> <li>- Develop, (accelerate development where appropriate), test, demonstrate, and field prototype ground-based sensor capabilities for post-detonation prompt diagnostics under DISCREET OCULUS.</li> </ul>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
- 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.  <b>FY 2016 Plans:</b> - 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.			
<b>Accomplishments/Planned Programs Subtotals</b>			
	34.595	35.061	9.547

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 28/0603160BR: <i>Proliferation Prevention and Defeat</i>	73.919	66.707	38.427	-	38.427	39.725	40.219	41.414	42.242	Continuing	Continuing
• 121/0605000BR: <i>WMD Defeat Capabilities</i>	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	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 the DoD Laboratories, Department of Energy National Laboratories, and DoD Services.

**E. Performance Metrics**

- Identification of five nuclear threat signatures for further evaluation.
- Delivery of one algorithm fusing new nuclear threat signatures with existing all-source intelligence.
- Incorporation of Gamma Detector Response and Analysis Software Algorithms on three additional detectors to improve detection capability.
- Bench-top demonstration of digital Polaris viability for potential system integration.
- Delivery of solid-state neutron detectors to provide alternate detection capability to end users.
- Test and evaluation of two RadCam prototypes to determine feasibility of integrated, dual radiation (both gamma and neutron) detection capability.
- Initial military utility assessment of active interrogation testing.
- Delivery of boron-loaded plastic scintillators to provide alternate detection capability to end users.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 2	PE 0602718BR / <i>WMD Defeat Technologies</i>	RF / <i>Forensics Technologies</i>

Delivery of neutron detection testing campaign initial report.  
Successfully test, demonstrate, field, and/or transition prototype nuclear forensics technologies/capabilities to an operational customer.  
Down-select of new signatures, surrogate urban debris production routes, and technology requirements for field analysis capabilities.  
Successful demonstration of the capability to exfiltrate data to a remote platform.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RG / Defeat Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RG: <i>Defeat Technologies</i>	47.857	14.270	10.982	11.769	-	11.769	11.395	11.700	11.965	12.203	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 adversarial use of weapons of mass destruction (WMD) while minimizing collateral effects. Technology development focuses on the physical or functional defeat of (1) chemical, biological, radiological, and nuclear threat materials, (2) an adversary's ability to deliver the same, and (3) the physical and non-physical support networks enabling both. This project achieves its 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 for rapid WMD elimination. This project includes developing specific WMD agent/agent-based process simulants, test infrastructure, and sampling capability required for effective development, testing, and evaluation of next-generation Counter-WMD (CWMD) technologies.

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.

The decrease from FY 2014 to FY 2015 is due to reduced investment in next generation CWMD technologies to balance other priorities. The increase from FY 2015 to FY 2016 is due to increased investment in component demonstrations and sub-scale and field testing of WMD defeat and assessment technologies.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RG: Defeat Technologies	14.270	10.982	11.769
<b>Description:</b> Project RG (Defeat Technologies) develops advanced technologies and weapon concepts and validates their applicability as counter WMD weapon systems.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>- Continued to mature an automated system for the analysis of electronics susceptibility to electromagnetic fields.</li> <li>- Continued classified components testing.</li> <li>- Began classified component design.</li> <li>- Continued testing in support of a WMD agent defeat penetrator bomb development.</li> <li>- Continued development of potential WMD target access denial or denial-of-use technologies.</li> <li>- Continued advanced testing of non-energetic WMD Defeat sub-munitions.</li> <li>- Continued small-scale testing of CWMD payloads.</li> <li>- Continued to explore integration of kinetic and non-kinetic capabilities into single payload for CWMD testing.</li> <li>- Continued testing and demonstrations of payloads capable of neutralizing large amounts of WMD agent.</li> <li>- Continued to catalog the accuracy and precision of WMD sampling equipment used in CWMD testing.</li> <li>- Continued development of a capability to conduct full-scale agent defeat testing with acceptable accuracy and precision.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies	<b>Project (Number/Name)</b> RG / Defeat Technologies

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
- Conducted large-scale target testing of functional defeat technologies.			
<b>FY 2015 Plans:</b>			
- Mature classified component testing.			
- Continue classified integration and component design.			
- Continue development of access denial and denial-of-use technologies for WMD targets.			
- Continue development and integration of concepts for exploiting susceptibility of electronics to electromagnetic fields.			
<b>FY 2016 Plans:</b>			
- 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.			
- Conduct sub-scale tests to assess capability to accurately measure WMD simulant released in plume.			
<b>Accomplishments/Planned Programs Subtotals</b>	14.270	10.982	11.769

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 28/0603160BR: Proliferation, Prevention, and Defeat	15.861	19.591	22.489	-	22.489	22.986	23.365	23.764	24.238	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, Department of Energy National Laboratories, and specialized university laboratories.

**E. Performance Metrics**

Research and develop potential technologies and mature at least three new capabilities to counter WMD between FY 2016 and FY 2020 to Technology Readiness Level 3/4.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RI / Nuclear Survivability			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RI: Nuclear Survivability	57.264	20.351	19.416	29.988	-	29.988	30.264	30.826	31.592	32.224	Continuing	Continuing

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

The Nuclear Survivability project provides innovative technologies for DoD nuclear and conventional forces, associated control and support systems, and facilities to protect and deter nuclear threats to enable mission-essential functions to continue during and after the onset of hostile action by extremists and rogue states. The Nuclear Survivability project provides electromagnetic pulse (EMP) research and standards, Nuclear Weapons Effects (NWE) experimentation, advanced Radiation Hardened Microelectronics (RHM), and human survivability research. The research from this project supports the 487 mission critical systems identified under DoDI 3150.09, Chemical, Biological, Radiological, and Nuclear (CBRN) Survivability Policy.

DTRA is the DoD designated EMP center of excellence to provide electromagnetic pulse survivability assessments to support national and military operational planning, weapons effects predictions, and national strategic system designs. DTRA publishes nuclear related military standards and handbooks for the strategic and non-strategic warfighters and program offices as the DoD NWE subject matter expert.

The RHM program responds to DoD space and missile system requirements for nanoelectronics and photonics technology to support DoD strategic mission needs. This program develops and demonstrates radiation-hardened, high-performance prototype microelectronics to ensure their availability from both private sector and government organizations. Further, the program develops DoD space and satellite nuclear survivability standards and handbooks that provide engineering level detail and defined metrics for all entities with space asset equities.

Pulsed power and laser-driven NWE simulators are available to validate nuclear survivability requirements for DoD missile and space systems, conduct radiation effects research in materials and electronics, and validate computational models. The Experimental Capabilities Program is working with the National Nuclear Security Administration (NNSA) and the United Kingdom's (UK) Atomic Weapons Establishment to jointly develop new enabling technologies for improved NWE experimentation capabilities for x-rays, gamma rays, and neutrons.

Human survivability conducts research to develop and validate mortality and morbidity models associated with radiological and nuclear weapons effects in urban environments.

The decrease from FY 2014 to FY 2015 is due to reduced investment in nuclear effects simulation/experimentation capability and radiation hardened nanoelectronics. The increase from FY 2015 to FY 2016 is due to the realignment of the system vulnerabilities and assessment activities from Project RL-Nuclear & Radiological Effects to Project RI.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RI: Nuclear Survivability	20.351	19.416	29.988

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RI / <i>Nuclear Survivability</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Description:</b> Project RI (Nuclear Survivability) provides the capability for DoD nuclear forces and their associated control and support systems and facilities in wartime 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.</p> <p><b>FY 2014 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- Demonstrated RadHard-by-Design 45nm /32nm technology.</li> <li>- Conducted radiation effects on advanced 14nm technology testing and characterization.</li> <li>- Completed 45nm and 32nm hardness assurance methods for testing and assurance projects.</li> <li>- Transitioned radiation effects modeling and simulation project from planar 45nm / 32nm Electronic Design Automation to 28nm / 14nm Fin-Shaped Field Effect Transistors.</li> <li>- Improved the electron beam test capabilities and expertise of the DTRA West Coast Facility in support of US and UK strategic systems survivability certification.</li> <li>- Demonstrated the Short Pulse Gamma prototype as a new and unique test capability within the West Coast Facility for hardening and validation of military systems without over-dosing to improve the long-term performance of mission critical electronics.</li> <li>- Demonstrated strategic level direct laser blow-off impulse test capability to support material modeling &amp; simulation and to establish a low-cost alternative technology to the development of a new magnetic flyer plate facility for future strategic re-entry systems.</li> <li>- Generated and distributed a Guide to Nuclear Weapons Effects Simulation Facilities and Applications, which documents all of the major NEW test capabilities in the United States.</li> <li>- Developed combined radiation and burn prompt injury models and code including time-dependent clinical parameters for integration into nuclear weapons effects code.</li> <li>- Initiated update of MIL-STD-188-125-1 High-Altitude Electromagnetic Pulse Protection For Ground-Based C4I Facilities Performing Critical, Time-Urgent Missions Part 1 Fixed Facilities.</li> <li>- Completed verification test of Modernization of Enterprise Terminals Hardened Transportable Terminal to MIL-STD-188-125-2.</li> <li>- Completed Consolidated Afloat Network and Enterprise Services Military Standard.</li> <li>- Completed draft MIL-STD-4023 Maritime EMP Standard for surface ships.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Collaborate with the UK on EMP research on power grid transformers.</li> <li>- Deliver 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.</li> <li>- Upgrade the Short Pulse Gamma facility within the West Coast Facility for hardening and validation of satellite and stockpile subsystems and components.</li> <li>- Explore and validate new pulsed-power neutron and dust test capabilities.</li> <li>- Complete Program Manager’s Handbook for Nuclear Survivability.</li> </ul>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RI / <i>Nuclear Survivability</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Publish survivability standards in support of satellite systems, all air domain effects, and source region electromagnetic pulse environment.</li> <li>- Complete 32nm Product Demonstration Vehicle.</li> <li>- Initiate a &lt;22nm Rad Hard-by-Design program.</li> <li>- Initiate development of maskless e-beam lithography.</li> </ul> <p><b><i>FY 2016 Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Upgrade electron-beam (cold x-ray) test capability at the DTRA West Coast Facility to allow testing at 2X current capability.</li> <li>- Develop innovative techniques to produce 5X improvement in warm x-ray (10-50 keV) test capability for DTRA Double-Eagle simulator.</li> <li>- Perform a System Generated Electro-Magnetic Pulse radiation effects experiments for 2-D code validation on the National Ignition Facility (NIF).</li> <li>- Publish MIL-STD-4023, High-Altitude Electromagnetic Pulse Protection for Maritime Assets and Comprehensive Atmospheric Nuclear Environment military standards.</li> <li>- Update MIL-STD-188-125-1/2, High-Altitude Electromagnetic Pulse Protection for Fixed and Transportable Facilities and Systems.</li> <li>- Update MIL-HDBK-423 High-Altitude Electromagnetic Pulse Protection for Fixed facilities.</li> <li>- Publish Aircraft High Altitude EMP Protection Handbook.</li> <li>- Conduct electromagnetic pulse assessments on Defense critical infrastructure for electric power and telecommunications networks.</li> <li>- Update cost estimates to harden methodology protocols for aircraft, missile, and satellite systems.</li> <li>- Transition Single Event Transient research and mitigation from legacy to 32 nanoscale technology nodes.</li> <li>- Initiate a RadHard-by-Design development for less than 22nm commercial technology.</li> <li>- Transition maskless e-Beam lithography from Small Business Innovation Research project to trusted Rad Hard Foundry.</li> <li>- Publish Satellite System Nuclear Survivability Protection Military Standard.</li> <li>- Initiate development of Satellite System Nuclear Survivability protection design handbook.</li> <li>- Initiate a low power design using one 1-D gridded design guidelines in a RadHard foundry.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	20.351	19.416	29.988

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	<b>Cost To Complete</b>	<b>Total Cost</b>
• 28/0603160BR: <i>Proliferation Prevention and Defeat</i>	5.939	5.570	6.191	-	6.191	6.640	6.727	6.814	6.942	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RI / <i>Nuclear Survivability</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**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 Department of Energy National Laboratories, and specialized university laboratories.

**E. Performance Metrics**

- Develop advanced x-ray experimental and computational capabilities to meet emerging survivability requirements.
- Demonstrate Short Pulse Gamma prototype to support high temporal fidelity for validation of prompt gamma Nuclear Weapons Effects on advanced electronics.
- Publish/update Nuclear Weapons Effects survivability standards and protection handbooks
- Update cost estimates to harden studies and protocols.
- Perform nuclear survivability assessments for Services and Combatant Commands.
- Provide advanced hardened nanoelectronics circuits and mitigation techniques.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RL / Nuclear & Radiological Effects			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RL: Nuclear & Radiological Effects	67.069	31.754	32.352	23.053	-	23.053	23.769	23.899	24.308	24.794	Continuing	Continuing

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

The Nuclear and Radiological Effects project develops nuclear and radiological assessment modeling tools to support military operational planning, weapon effects predictions, and strategic system design decisions; consolidate validated Defense Threat Reduction Agency (DTRA) modeling tools into the Joint Information Environment for integrated functionality; predict system response to nuclear and radiological weapons producing electromagnetic, thermal, blast, shock and radiation environments - key systems include Nuclear Command and Control System, Global Information Grid, space assets, structures, humans and environment; provide detailed adversary nuclear infrastructure characterization to enhance counterforce operations and hazard effects; conduct analyses in support of nuclear and radiological science and technology and address the priority needs of the Combatant Commands and the Department of Defense (DoD); and develop foreign nuclear weapon outputs.

The increase from FY 2014 to FY 2015 is due to the net effect of the cancellation of the Experimental Situational Awareness Center, a shift in priorities from weapon effects modeling to electromagnetic pulse modeling, and increased investment in full effects modeling. The decrease from FY 2015 to FY 2016 is due to an administrative realignment of the System Vulnerability and Assessment program to Project RI-Nuclear Survivability due to the nature of that effort.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RL: Nuclear & Radiological Effects	31.754	32.352	23.053
<b>Description:</b> Project RL (Nuclear & Radiological Effects) develops nuclear and radiological assessment modeling tools to support military operational planning, weapons effects predictions, and strategic system design decisions.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>- Started Atmospheric Nuclear Environment Military Standard.</li> <li>- Began Communication in Disturbed Environment Military Standard.</li> <li>- Complete Verification Test of Modernization of Enterprise Terminals Hardened Transportable Terminal to MIL-STD-188-125-2.</li> <li>- Completed draft MIL-STD-4023, High Altitude Electromagnetic Pulse protection for maritime assets.</li> <li>- Via the Nuclear Weapons Effects Network, modeled fire start to support United States Strategic Command (USSTRATCOM) interest in Consequences of Execution, fire start experiments, and tunnel defeat.</li> <li>- Modeled nuclear infra-red effects for global assessment of missile defense systems' capabilities.</li> <li>- Updated radar and infra-red system models.</li> <li>- Updated Source Region Electromagnetic Pulse model to support USSTRATCOM requirements.</li> <li>- Modified input requirements of engineering level codes to take advantage of Redbook and Bluebook output.</li> <li>- Modeled the effects of urban nuclear detonations for underground tunnels (e.g., subways) in support of infrastructure assessments.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>

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

- Expanded Nuclear Weapons Effects Database System functionality with additional targets and damage calculations. Enhanced the following: reports, plot rendering, combined and multiple weapons effects, and Nuclear Weapons Database.
- Provided model for analysis of the high altitude nuclear environments and the effects of electromagnetic pulse and non-ideal airblast on defense systems for an integrated net-centric application.

***FY 2015 Plans:***

- Begin transition of improved airblast, fallout, fire and Source Region Electromagnetic Pulse models to the DTRA net-centric environment for USSTRATCOM (and other nuclear targeting/consequences of execution users).
- Improve weapon outputs, environment models, and Effects Manual 1 (EM-1) chapters.
- Deliver upgraded database of foreign nuclear weapon outputs for DoD and the Services.
- Develop System Generated Electromagnetic Pulse simulation codes by adapting physics capabilities of the Maxwell's Equations Equivalent Circuit code and the Improved Concurrent Electromagnetic Particle-In-Cell high performance computing code.
- Further develop a database with selected nuclear weapon output and effects for use in validation of nuclear weapon effects codes.
- Develop component level electromagnetic pulse response model for better modeling/predictions of effects on electronic systems.
- Via the Nuclear Weapon Effects Network, continue modeling economic and social consequences of nuclear detonation effects, collateral building damage due to nuclear-induced airblast, assess nuclear dust/debris effects on airborne systems, and model nuclear fire initiation.
- Begin enhancement and fix current shortfalls of High Altitude Radiation Phenomenology functionality for use on modern computer systems.
- Complete transfer of contracting vehicle for continued development of nuclear weapon environment on airborne strategic systems at low, medium, and high-altitudes to include non-steady, non-level flight to modernize modeling and simulation tools in airblast, thermal, and fallout applicable areas.
- Complete transfer of contracting vehicle for development of the Atmospheric Nuclear Environment Military Standard.
- Develop new magnetosphere experiments using microsattellites (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.
- Complete transfer of contracting vehicle for development of the Communication in Disturbed Environment Military Standard.
- Complete engineering level modeling of the response of airborne systems in nuclear dust clouds, and transition the capability to nuclear hardness databases.
- Begin implementation of first principle modeling tools for nuclear fire initiation and spread in urban and suburban environments.
- Publish MIL-STD-4023, High Altitude Electromagnetic Pulse Protection for Maritime Assets.
- Publish Comprehensive Atmospheric Nuclear Environment MIL-STD.
- Update MIL-STD-188-125-1/2, High Altitude Electromagnetic Pulse Protection for Fixed and Transportable Facilities and Systems.
- Perform an electromagnetic pulse assessment on a U.S. Navy warship.

FY 2014	FY 2015	FY 2016



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Update MIL-HDBK-423, High Altitude Electromagnetic Pulse protection for fixed facilities.</li> <li>- Publish Aircraft Electromagnetic Pulse Protection Handbook.</li> <li>- Add Source Region Electromagnetic Pulse to the Electromagnetic Reliability and Effects Prediction Toolkit.</li> <li>- Conduct electromagnetic pulse assessments on defense critical infrastructure power, specifically the power grid and telecommunications networks.</li> </ul> <p><b><i>FY 2016 Plans:</i></b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Provide improved foreign nuclear weapon outputs, environment models, and Effects Manual 1 (EM-1) chapters.</li> <li>- 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.</li> <li>- Further develop a gold standard database with selected historical nuclear weapon output and effects for use in validation of Nuclear Weapons Effects codes.</li> <li>- Via the Nuclear Weapons Effects Network, continue modeling economic and social consequences of nuclear detonation effects, 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.</li> <li>- Improve high altitude nuclear effects functionality for use in analyzing satellite and missile defense response to a nuclear environment.</li> <li>- Continue implementation of first principle modeling tools for nuclear fire initiation and spread in urban and suburban environments.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	31.754	32.352	23.053

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 121/0605000BR: <i>WMD Defeat Capabilities</i>	5.644	-	-	-	-	-	-	-	-	-	5.644

**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 Department of Energy National Laboratories, and specialized university laboratories.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 2	PE 0602718BR / <i>WMD Defeat Technologies</i>	RL / <i>Nuclear &amp; Radiological Effects</i>

**E. Performance Metrics**

Provide DoD the ability to predict the survival and mission impact of military critical systems exposed to nuclear weapon environments within acceptability criteria defined during the model accreditation process.

Continuously improve USSTRATCOM official strategic targeting capability to determine the consequences of execution from nuclear weapons.

Weapon Effects Steering Committee: Coordinate and integrate nuclear weapon effects needs, capabilities, and programs across the United States and United Kingdom defense communities.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RM / WMD Counterforce Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RM: WMD Counterforce Technologies	52.370	14.660	13.787	13.526	-	13.526	13.642	13.958	14.427	14.714	Continuing	Continuing

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

The Weapons of Mass Destruction (WMD) Counterforce Technologies Project provides applied research to support 1) full and sub-scale testing required to investigate countering WMD weapon effects and sensor performance, 2) weapon effects modeling algorithm development, and 3) development of visualization and situational awareness tools to support the next generation Defense Threat Reduction Agency (DTRA) Technical Reachback analysis cell.

This project provides Combatant Commanders with the prediction capability and the attack options to engage WMD targets. The project conducts weapon effects phenomenology tests, analyzes data, conducts high performance computer simulations, and creates/modifies software to more accurately model and simulate weapons effects on WMD and related targets. These efforts will lead to advanced capabilities in countering WMD planning tools. The Advanced Energetics Program develops new novel energetic materials and weapon design technology for rapid, directed, and enhanced energy release, providing new capability to defeat difficult WMD/Hard and Deeply Buried Targets. The Advanced Energetics Program develops new high energy systems well above current chemical energy levels to defeat WMD targets beyond the reach of traditional high explosive blast/frag warhead technology.

The decrease from FY 2014 to FY 2015 is due to reduced investment in small and medium-scale validation and parametric study experiments for advanced energetics. The decrease from FY 2015 to FY 2016 is due to decreased investment in weapons effects modeling.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RM: WMD Counterforce Technologies	14.660	13.787	13.526
<p><b>Description:</b> Project RM (WMD Counterforce Technologies) provides (1) novel and enhanced weapons energetic materials and structures, full-scale testing of counter WMD weapons effects, weapons effects modeling, and weapon delivery optimization, (2) WMD sensor, surveillance and data processing technologies, and (3) the DTRA Experimentation Lab.</p> <p><b>FY 2014 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- Developed Blast Propagation Through Failed Walls Model.</li> <li>- Completed testing to update Agent Release Model for container perforated translation/collision.</li> <li>- Optimized Finite Element Flow Solver for agent defeat calculations in complex tunnels.</li> <li>- Completed General Near Miss Lethality Model.</li> <li>- Continued model development for blast and fragment propagation through failing blast doors and multi-blast doors.</li> <li>- Continued lab and scale testing for validation of high fidelity models for penetration mechanics through ultra-high strength materials.</li> <li>- Developed test data for steel columns for near contact detonations to feed global response models for agent defeat planning and consequence of execution estimation.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RM / <i>WMD Counterforce Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Continued global response testing and modeling for progressive collapse analyses for consequence of execution estimation.</li> <li>- Coordinated a new project agreement with Singapore for testing and modeling of mega columns.</li> <li>- Completed a model for blast propagation through bunker walls for inventory weapons.</li> <li>- Performed annual cycle of requirements collection, challenge proposals, resource allocation, and technical support through high performance computing.</li> <li>- Enhanced one high performance computing production code to better leverage capabilities of the Department of Defense (DoD) high performance computers for improved modeling and simulation time to response.</li> <li>- Delivered a 70% increase in high end computational cycles to numerical modeling and simulation community.</li> <li>- Produced scaled quantities of three novel explosives having output performance greater than conventional explosives.</li> <li>- Initiated effort to produce greater scaled quantity of novel explosive material for performance testing.</li> <li>- Invented four new polymers with better performance than existing energetic polymers for potential counter-WMD technology applications.</li> <li>- Filed patent application for two polymers which have photovoltaic properties with potential counter-WMD technology applications.</li> <li>- Discovered and employed methods for production of energetic polymers.</li> <li>- Completed standardization of sensitivity test methods.</li> <li>- Conducted a large scale test of hybrid enhanced blast explosives and reactive cases for defeat of biological agents using simulants.</li> <li>- Scaled up synthesis of novel explosives, prepared their metalized composites, and conducted field tests.</li> <li>- Developed real-time reachback requirements and gap solutions through wide area search Table Top Exercise.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop Hybrid Enhanced Blast Explosives; demonstrate ability to embed detonator system and disperse along with the fuel to initiate cloud reaction as designed.</li> <li>- Conduct a large-scale test of Hybrid Enhanced Blast Explosives and reactive cases for defeat of biological agents using simulants.</li> <li>- Modeling and test support 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.</li> <li>- Conduct field tests to support optimization and improve effectiveness of biocidal effect fuels used in explosive formulations, innovative common data methods supporting advanced WMD effects modeling and simulation capabilities for consequence management.</li> <li>- Conduct 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.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RM / <i>WMD Counterforce Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Improve hydrocodes to provide high fidelity capability to model post-detonation energy release from non-ideal detonation and other new advanced energetics systems.</li> <li>- Integrate weapons effects model for blast propagation through bunker walls for inventory weapons into planning tools.</li> <li>- Develop weapons effects debris model from bunker walls subjected to internal detonations with inventory weapons.</li> <li>- Complete testing of response of dry-agent stimulant in container undergoing perforation, translation, and collision from weapons induced loads. Deliver new Agent Release Model.</li> <li>- Begin large-scale testing for validation of high fidelity models for penetration mechanics through ultra-high strength materials.</li> <li>- Complete testing and begin model development for response of massive columns to near-contact charges.</li> <li>- Conduct testing to validate high fidelity computational methods for predicting progressive collapse analysis of steel buildings.</li> <li>- Perform annual cycle of requirements collection, challenge proposals, resource allocation, and technical support through high performance computing.</li> <li>- Submit proposal(s) to the DoD High Performance Computing Modernization Program (HPCMP) to fund dedicated high performance computing hardware to meet unique DTRA requirements.</li> <li>- Submit proposal(s) to the HPCMP to fund software development to meet unique DTRA requirements.</li> </ul> <p><b><i>FY 2016 Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Complete technology gap analysis for chemical/biological source term modeling.</li> <li>- Enhance computational fluid and structure codes for chemical/biological source term modeling.</li> <li>- Conduct component level, small-scale testing for chemical/biological source term modeling.</li> <li>- Develop fast running engineering models for dispersion of chemical/biological agents.</li> <li>- Test modeling of response of mega columns to near-contact charges.</li> <li>- Perform annual cycle of requirements collection, frontier proposals, resource allocation, and technical support through high performance computing.</li> <li>- Develop/demonstrate small-scale Hybrid Enhanced Blast Explosives.</li> <li>- Test/demonstrate Hybrid Enhanced Blast Explosives and reactive cases for simulated biological agent defeat.</li> <li>- Model and test reactive case technologies for Joint Multi-Effects Warhead System and various warheads.</li> <li>- Improve modeling capability for weapon post detonation reaction using reactive case technologies.</li> <li>- Improve modeling capability for agent defeat using novel weapon energetic payloads.</li> <li>- Conduct field tests to support optimization and improve effectiveness of explosive formulations for chemical, biological, radiological, and nuclear agent defeat.</li> <li>- Conduct lab and field tests of two new explosive formulations tailored (temperature, pressure and outgases) for WMD defeat operations.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	14.660	13.787	13.526

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RM / <i>WMD Counterforce Technologies</i>

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

Line Item	FY 2014	FY 2015	FY 2016	FY 2016	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Cost To	Total Cost
			Base	OCO	Total					Complete	
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	29.644	29.346	20.717	-	20.717	22.846	23.216	23.739	24.212	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 Department of Energy National Laboratories, and specialized university laboratories. Technologies are transitioned to users via Service and Interagency Program Management Offices (e.g., WMD Aerial Collection System transitioned via the Army's Program Manager Unmanned Aircraft System, Counter WMD Planning Tools via Joint Munitions Effectiveness Manual Weaponing System and Target Acquisition Workstation, and other modeling and simulation capabilities are transitioned via DTRA Technical Reachback.

**E. Performance Metrics**

- Delivery of optimized Finite Element Flow Solver for agent defeat calculations in complex tunnels.
- Submittal of high performance computing annual cycle of requirements collection, challenge proposals, if any, and provide technical support.
- Completion and integration of one enhanced high performance computing production code to better leverage capabilities of DoD high performance computers for improved modeling and simulation time to response.
- Completion of lab and scale testing for validation of high fidelity models for penetration mechanics through ultra-high strength materials.
- Delivery of test data for steel columns for near-contact detonations to feed global response models for agent defeat planning and consequence of execution estimation.
- Completion of global response testing and modeling for progressive collapse analyses for consequence of execution estimation.
- Completion of a model for blast propagation through bunker walls for inventory weapons.
- Completion of a large scale test of Hybrid Enhanced Blast Explosives and reactive cases for defeat of biological agents using simulants.
- Completion of synthesis of novel explosives, prepare their metalized composites and complete field tests.
- Completion of modeling and testing support 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.
- Completion of testing of response of dry-agent stimulant in container undergoing perforation, translation, and collision from weapons induced loads.
- Delivery of new Agent Release Model.
- Completion of large-scale testing for validation of high fidelity models for penetration mechanics through ultra-high strength materials.
- Completion of testing and begin model development for response of massive columns to near-contract charges.
- Completion of testing to validate high fidelity computational methods for predicting progressive collapse analysis of steel buildings.
- Delivery of technology gap analysis for chemical/biological source term modeling.
- Completion of computational fluid and structure codes and component level, small-scale testing for chemical/biological source term modeling.
- Completion of testing for and development of fast running engineering model for dispersion of chemical/biological agents.
- Completion of demonstration of Hybridized Enhance Blast Explosive and reactive cases for simulated biological agent defeat.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 2	PE 0602718BR / <i>WMD Defeat Technologies</i>	RM / <i>WMD Counterforce Technologies</i>

Completion of tests for reactive case technologies for Joint Multi-Effects Warhead System and various warheads.  
Delivery of modeling capability for weapon post detonation reaction using reactive case technologies.  
Completion of lab and field tests of two new explosive formulations tailored (temperature, pressure, and outgases) for WMD defeat operations.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RR / Combating WMD Test and Evaluation			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RR: <i>Combating WMD Test and Evaluation</i>	40.575	11.543	11.060	11.182	-	11.182	11.709	11.984	12.315	12.560	Continuing	Continuing

**Note**

RR Project title changed from Test Infrastructure to Combating WMD Test and Evaluation starting in FY 2015.

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

The Combating Weapons of Mass Destruction (WMD) Test and Evaluation Project provides a unique national test bed capability for simulated 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 United States military or civilian systems and targets. It leverages 50 years of testing expertise to investigate weapons effects and target response across the spectrum of hostile environments that could be created by proliferate nations or terrorist organizations with access to advanced conventional weapons or WMD (nuclear, biological, and chemical). The project provides capabilities that support the testing requirements of warfighters, other government agencies, and friendly foreign countries. It creates testing strategies and a WMD Test Bed infrastructure focusing on the structural response of buildings and Hard and Deeply Buried Targets that house nuclear, biological, and chemical facilities. It provides support for full and sub-scale tests that focus on weapon-target interaction with fixed soft and hardened facilities to include above ground facilities, cut-and-cover facilities, and deep underground tunnels. This capability does not exist anywhere else within the DoD and supports the counterproliferation pillar of the National Strategy to Combat WMD.

The decrease from FY 2014 to FY 2015 is due to the cancellation of the Infrastructure Development and Improvement program to balance priorities.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RR: Combating WMD Test and Evaluation	11.543	11.060	11.182
<b>Description:</b> Project RR provides a unique national test bed capability for simulated 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 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>FY 2014 Accomplishments:</b>			
- Continued Combating WMD (CWMD) testing/demonstration at Nevada National Security Site to defeat credible and threat-based scenarios; continued with transition into several related projects/planned events through FY 2017.			
- Supported 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.			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RR / <i>Combating WMD Test and Evaluation</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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<ul style="list-style-type: none"> <li>- Continued research of biological re-aerosolization in conjunction with DoD/Department of Homeland Security (DHS)/ Environmental Protection Agency (EPA) to help develop precise measurement technologies for residual biological pathogens reentering air after settling.</li> <li>- Continued intergovernmental Biological Agent Defeat test program between DTRA and Defence Research and Development Canada.</li> <li>- Conducted testing in support of 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.</li> <li>- 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.</li> <li>- Continued environmental remediation and compliance activities at the Nevada National Security Site, White Sands Missile Range, and Kirtland Air Force Base (AFB) in accordance with EPA, safety, and environmental guidelines. Deferred major demolition and restoration efforts of major test articles while ensuring they are safely closed and sealed at acceptable standards.</li> <li>- 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.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue 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.</li> <li>- Continue 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.</li> <li>- Continue testing in support of "Speed of Sound" nuclear forensic program estimated to continue through FY 2015.</li> <li>- Support revitalized Weapons Effects Phenomenology Program supporting DTRA test programs.</li> <li>- Continue testing in support of 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.</li> <li>- 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.</li> <li>- Continue testing CBRNE sensors, WMD countermeasures, remote geological sensing, and battle management systems designed for surveillance and tracking targets used for WMD activities.</li> <li>- Continue nuclear detection and forensics testing to prevent weapons grade material/dirty bombs from entering the United States, U.S. territories, and Allied Nations.</li> </ul>			
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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies	<b>Project (Number/Name)</b> RR / Combating WMD Test and Evaluation
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Continue environmental remediation and compliance activities at the Nevada National Security Site, White Sands Missile Range, and Kirkland AFB in accordance with 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.</li> <li>- Maintain current inventory of infrastructure and instrumentation, extending life-cycle of these items as long as possible to ensure test beds meet customers' advanced technology testing needs.</li> <li>- Document, prioritize, and support test infrastructure requirements.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Begin testing at Nevada National Security Site in support of the nonproliferation portion of the National Center for Nuclear Security portfolio.</li> <li>- Conduct CWMD testing/demonstration at Nevada National Security Site to defeat credible and threat-based scenarios with transition into several related projects/planned events.</li> <li>- 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.</li> <li>- Perform testing in support of Treaty Verification Technology Program and Source Physics Experiment to support Comprehensive Test Ban Treaty initiatives.</li> <li>- 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.</li> <li>- Test CBRNE sensors, WMD countermeasures, remote geological sensing, and battle management systems designed for surveillance and tracking targets used for WMD activities.</li> <li>- Conduct environmental remediation and compliance activities at the Nevada National Security Site, White Sands Missile Range, and Kirtland AFB in accordance with EPA, 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.</li> <li>- Maintain current inventory of infrastructure and instrumentation, extending life-cycle of these items as long as possible, to ensure test beds meet customers' advanced technology testing needs.</li> <li>- Document, prioritize, and support test infrastructure requirements.</li> <li>- Conduct collection campaigns with interagency participation specific to relevant counter WMD data collection requirements.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	11.543	11.060	11.182

<b>C. Other Program Funding Summary (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	0.092	-	-	-	-	-	-	-	-	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RR / <i>Combating WMD Test and Evaluation</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**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 Department of Energy National Laboratories, and specialized university laboratories.

**E. Performance Metrics**

Number of tests executed safely, (i.e., no personal injury and no unintentional significant damage of property)

Number of tests that are evaluated and completed in accordance with scheduled milestones.

Number of tests that undergo environmental assessment consistent with existing Environmental Impact Statements. All tests executed undergo environmental review consistent with existing Environmental Impact Statements.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / WMD Defeat Technologies				<b>Project (Number/Name)</b> RU / Fundamental Research for Combating WMD			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RU: <i>Fundamental Research for Combating WMD</i>	20.391	0.919	-	-	-	-	-	-	-	-	-	21.310

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

The Fundamental Research for Combating 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.

The decrease from FY 2014 to FY 2015 is due to the completion of the University Strategic Partnership activities with the University of New Mexico and Pennsylvania State University.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RU: Fundamental Research for Combating WMD	0.919	-	-
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b> - Provided technical and programmatic support to DTRA's basic research program.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.919	-	-

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 1/0601000BR: DTRA Basic Research Initiative	44.783	37.778	38.436	-	38.436	38.783	39.463	40.134	40.937	Continuing	Continuing

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0602718BR / <i>WMD Defeat Technologies</i>	<b>Project (Number/Name)</b> RU / <i>Fundamental Research for Combating WMD</i>

**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 research organizations participating, 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 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	828.364	282.719	291.694	290.654	-	290.654	283.236	270.609	277.688	283.217	Continuing	Continuing
RA: <i>Information Sciences and Applications</i>	21.175	0.107	-	12.244	-	12.244	11.501	11.397	12.839	13.085	Continuing	Continuing
RD: <i>Detection Technologies</i>	-	-	-	29.893	-	29.893	29.689	30.137	30.832	31.447	Continuing	Continuing
RE: <i>Counter-Terrorism Technologies</i>	336.540	109.679	116.630	104.628	-	104.628	106.132	108.171	110.182	112.388	Continuing	Continuing
RF: <i>Forensics Technologies</i>	219.783	73.919	66.707	38.427	-	38.427	39.725	40.219	41.414	42.242	Continuing	Continuing
RG: <i>Defeat Technologies</i>	49.913	15.861	19.591	22.489	-	22.489	22.986	23.365	23.764	24.238	Continuing	Continuing
RI: <i>Nuclear Survivability</i>	26.641	5.939	5.570	6.191	-	6.191	6.640	6.727	6.814	6.942	Continuing	Continuing
RM: <i>WMD Counterforce Technologies</i>	74.392	29.644	29.346	20.717	-	20.717	22.846	23.216	23.739	24.212	Continuing	Continuing
RR: <i>Combating WMD Test and Evaluation</i>	1.810	0.092	-	-	-	-	-	-	-	-	Continuing	Continuing
RT: <i>Target Assessment Technologies</i>	98.110	47.478	53.850	56.065	-	56.065	43.717	27.377	28.104	28.663	Continuing	Continuing

**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**

The mission of the Defense Threat Reduction Agency (DTRA) is to safeguard the United States and its allies from global weapons of mass destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly reflects several national and Department of Defense (DoD) level guidance/vision documents. For Research, Development, Test & Evaluation, these documents include the National Security Strategy, Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), 2014 Quadrennial Defense Review, National Strategy for Combating Terrorism, 2002 National Strategy to Combat WMD, Defense Planning Guidance, Guidance for Employment of the Force, 2014 DoD Strategy for Countering WMD, National Military Strategic Plan for the War on Terrorism, Joint Strategic Capabilities Plan (including the Nuclear Annex), and 2010 Nuclear Posture Review. To achieve this mission, DTRA has identified principal objectives along with strategies and tasks to ensure the objectives are met. These objectives are: 1) Ensure a safe, secure, and effective nuclear deterrent; 2) Anticipate emerging WMD threats; 3) Provide Combating WMD situational awareness; 4) Assess infrastructure and personnel vulnerabilities; 5) Prevent proliferation and use of WMD; 6) Defend against WMD threats; 7) Defeat WMD threats; 8) Recover from WMD consequences; and 9) Synchronize countering WMD activities.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>
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The Counterproliferation Initiatives - Proliferation, Prevention, and Defeat program element reduces WMD proliferation and enhances WMD defeat capabilities through advanced technology development. To accomplish this objective, the DTRA established the following projects: RA-Information Sciences and Applications, RD-Detection Technologies, RE-Counter-Terrorism Technologies, RF-Forensics Technologies, RG-Defeat Technologies, RI-Nuclear Survivability, RM-WMD Counterforce Technologies, and RT-Target Assessment Technologies. These projects support technology requirements in line with the Joint Functional Concepts (Chairman, Joint Chiefs of Staff Instruction 3170.01).

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	274.033	283.694	277.955	-	277.955
Current President's Budget	282.719	291.694	290.654	-	290.654
Total Adjustments	8.686	8.000	12.699	-	12.699
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	8.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	12.500	-			
• SBIR/STTR Transfer	-3.814	-			
• Realignments	-	-	1.750	-	1.750
• Programmatic - Increases	-	-	11.000	-	11.000
• Inflation	-	-	-0.051	-	-0.051

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** RE: *Counter-Terrorism Technologies*

Congressional Add: *Technology Solutions Supporting Operations in Subterranean Environments*

Congressional Add Subtotals for Project: RE

Congressional Add Totals for all Projects

	FY 2014	FY 2015
Congressional Add Subtotals for Project: RE	-	8.000
Congressional Add Totals for all Projects	-	8.000

**Change Summary Explanation**

The increase in FY 2016 from the previous President's budget submission is due to increased investments in Counter WMD-Terrorism, the Counterproliferation research and development program, and the development and integration of high-priority find, characterize and assess sensor technologies and supporting algorithms and software.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RA: <i>Information Sciences and Applications</i>	21.175	0.107	-	12.244	-	12.244	11.501	11.397	12.839	13.085	Continuing	Continuing

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

The Information Sciences and Applications project provides technical reachback support to create decision advantage for the United States and our allies through improved situational understanding across the complete Combating Weapons of Mass Destruction (CWMD) mission space. The Technical Reachback effort provides 24 hour/7 days per week information and analyses on potential impacts of a weapon of mass destruction (WMD) event to warfighters and first responders in consult with the DTRA's CWMD research and development subject matter experts. This effort develops and integrates capabilities and processes to support assessment and estimation of WMD effects and consequences, to include secondary and tertiary effects. This project has also provided support (through FY 2014) to international CWMD science and technology cooperation by developing modifications, improvements, or new technologies and information tools suitable for foreign release and cooperative efforts.

The decrease from FY 2014 to FY 2015 was due to the completion of efforts in building partner capacity development activities. The increase from FY 2015 to FY 2016 is due to the realignment of funding for Technical Reachback from Project RM-WMD Counterforce Technologies to Project RA to better reflect the nature of those activities.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> RA: Information Sciences and Applications	0.107	-	12.244
<b>Description:</b> Project RA develops innovative technologies and modeling and simulation capabilities and provides technical reachback support to create decision advantage for the United States and our allies through improved situational understanding across the complete CWMD mission space.			
<b>FY 2014 Accomplishments:</b> - Continued modifications and capability improvements to vulnerability assessment software and integrated WMD.			
<b>FY 2016 Plans:</b> - 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 hazard.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.107	-	12.244

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>			<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	21.879	28.785	29.949	-	29.949	32.901	32.365	32.780	33.433	Continuing	Continuing
• 151/0605502BR: <i>Small Business Innovation Research</i>	9.700	-	-	-	-	-	-	-	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Assess government, academic, and industrial performers 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**

Technical Reachback will provide information and analysis on potential impacts of WMD events, to include secondary and tertiary effect, to all requests from warfighters and first responders within the requestor's decision cycle.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RD / <i>Detection Technologies</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RD: <i>Detection Technologies</i>	-	-	-	29.893	-	29.893	29.689	30.137	30.832	31.447	Continuing	Continuing

**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**

The United States has long recognized the challenges associated with a state actor losing custody of a nuclear weapon or of a violent extremist organization gaining control of such a device. The Defense Threat Reduction Agency’s research and development mitigates these challenges by enabling Countering Weapons of Mass Destruction efforts through advancing radiation detection capabilities. There are physical limits to the efficacy of traditional radiation detection, and the successful recovery or interdiction of a weapon may depend on detection capabilities that apply much earlier in the nuclear threat chain continuum. The nuclear threat chain continuum can be defined as the entire spectrum of activities that might lead to the state loss or violent extremist organization acquisition of a nuclear weapon. Beginning FY 2016, Project RD will conduct research, development, test, & evaluation (RDT&E) to 1) advance detection—both sensor technology and related methodologies—for signatures/indicators associated with nuclear threat enablers such as nuclear expertise, financing, or unique materials in order to advance U.S. Government capabilities to detect and interdict such threats; and 2) locate, identify, and track Special Nuclear Material by integrating new technologies into detection systems and delivering prototypes for evaluation and further procurement by Services/Special Mission Units. These efforts support Department of Defense (DoD) requirements for combating 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.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> RD: Detection Technologies	-	-	29.893
<b>Description:</b> Project RD conducts RDT&E to detect, locate, identify, track, and interdict nuclear and radiological threats, which include weapons, material, and enablers to their acquisition and development such as nuclear expertise, financing, or unique technologies. Efforts support DoD requirements for combating terrorism, counter/nonproliferation, and homeland defense.			
<b>FY 2016 Plans:</b>			
- 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.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RD / <i>Detection Technologies</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- 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.</li> <li>- Improve performance of new detector materials; imaging and spectroscopy systems; and signals analysis methods through rigorous laboratory and field testing.</li> <li>- Integrate advances in materials science into lightweight, high-resolution radiation spectrometers for use in field operations.</li> <li>- Transition near-term technologies to generate prototypes and design packages that will assist operational users.</li> <li>- Conduct advanced/operational testing and evaluation of radiation detection systems to assess their performance.</li> <li>- 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.</li> <li>- Integrate new cellular technology into the R/N search network to ensure rapid flow of data from detectors.</li> <li>- Exploit the prototype testing of Oak Ridge National Laboratory to develop an operationally useful roadside detector capable of detecting nuclear material in moving vehicles.</li> <li>- Test and evaluate the integration of high resolution detectors with lower resolution detectors to determine the potential to meet threshold R/N detection requirements.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	29.893

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	-	-	26.401	-	26.401	26.893	27.430	28.039	28.600	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 Department of Energy National Laboratories, DoD laboratories, and DoD Services. In concert with anticipated/potential end-users define requirements for the development of fieldable prototype systems. These systems are both stand-alone systems and components of larger, integrated systems. When possible, transition stand-alone systems to programs of record or to the commercial sector for further development or distribution. Transition system components via incorporation into larger, existing systems as upgrades that advance the state-of-the art of radiation detection.

**E. Performance Metrics**  
 Integration of three nuclear signatures into existing Intelligence Community production and analysis cycles.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RD / <i>Detection Technologies</i>
<p>Successful development of a new class of semiconductor detectors that increase resolution and compactness of imaging systems. Improvements to detection system algorithms that result in improved detection factors such as range, accuracy, sensitivity, and time. Receipt of 3D Polaris system incorporating a high-resolution focal plane for increased accuracy. Receipt of an ultra-compact, low-power, high-resolution spectrometer for test and evaluation. Receipt of two organic scintillators for test and evaluation. Receipt of prototype detection equipment incorporating nanosemiconductors for test and evaluation. Receipt of prototype wearable neutron detection device for test and evaluation and user feedback. Receipt of solid state neutron detectors for test and evaluation. Receipt of initial prototype trace analysis kit for test and evaluation and user feedback.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>					<b>Project (Number/Name)</b> RE / <i>Counter-Terrorism Technologies</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RE: <i>Counter-Terrorism Technologies</i>	336.540	109.679	116.630	104.628	-	104.628	106.132	108.171	110.182	112.388	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 and systems. This high priority project focuses on support to the U.S. Special Operations Command (USSOCOM). Through enhancing USSOCOM capabilities, this project supports the highest priority mission areas in the National Security Strategy, the National Strategy to Combat WMD, the National Military Strategy to Combat WMD, the Quadrennial Defense Review, and the Guidance on the Employment of the Force. The following efforts are included:

The CWMD-T technologies program builds upon collaborative efforts with the warfighter. This program develops proofs of concept and subsequent advancements in research, development, testing, and evaluation and provides multi-mission capabilities that may be applied throughout the entire spectrum of warfare while significantly eliminating collateral damage. The CWMD-T technologies program develops technologies to enable the warfighter to locate, identify, characterize, and access Chemical, Biological, Radiological, and Nuclear WMDs, their production and storage facilities, and associated enablers at multiple nodes along the terrorist development/acquisition pathway in order to disrupt, delay, degrade, destroy, or deny WMDs while minimizing risk to U.S. forces.

The Counter WMD-Terrorism (CWMD-T) Counterproliferation research and development (R&D) program is a collaborative effort with USSOCOM in which DTRA manages and sub-allocates a portion of this funding directly to USSOCOM to develop warfighter-unique technologies in support of USSOCOM's counterterrorism and counterproliferation mission. New counterterrorism and counterproliferation technologies are developed under USSOCOM management, and in coordination with DTRA, to provide warfighters with the operational capability to counter WMD threats.

Under Project RE, the USSOCOM CWMD-T Support Program integrates and federates all-source intelligence and other information with operational analysis to support Combatant Command (CCMD) planning processes related to CWMD-T. Research is focused on developing and improving technologies to ingest, organize, interpret, and operationalize large amounts of data from many sources, multiple formats, and all relevant classification levels to provide the warfighter with a dynamic picture of the WMD-T operational environment.

The increase from FY 2014 to FY 2015 was due to increased investments in technology solutions supporting operations in subterranean environments. The decrease from FY 2015 to FY 2016 is due to the deferment of lower priority projects until further maturation in technology readiness level.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RE: Counter-Terrorism Technologies	109.679	108.630	104.628

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RE / <i>Counter-Terrorism Technologies</i>

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

**Description:** Project RE provides R&D support to Joint U.S. Military Forces, specifically USSOCOM, in the areas of Explosive Ordnance Disposal (EOD) Device Defeat; Counter WMD (CWMD) technologies for warfighters; the USSOCOM Combating WMD – Terrorism Support Program; and oversight of counterproliferation R&D resources sent directly to USSOCOM for warfighter-unique counterproliferation technologies.

**FY 2014 Accomplishments:**

- Continued other planned development and transitioned 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 EOD Device Defeat program.
- Developed impede tools for Improvised Explosive Device (IED) triggers.
- Continued to support Combatant Commanders' planning efforts related to 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.
- Built precision shaped charges using a proven manufacturing process through the use or modification of an existing shaped charge design.
- Transitioned next generation imaging technologies to allow EOD forces advanced diagnostic capabilities.
- Continued to improve and further enhance the usability and capability of the CWMD-T global dynamic picture of the operating environment for use by the DoD and U.S. Government Community of Interest. Incorporated need-to-know verification.
- Continued to improve upon Combatant Commanders' planning efforts related to CWMD-T by successfully releasing improvements to automated planning and analyst support tools for large-scale data management and information extraction.
- Began development/integration of an Intent Model to address human socio-cultural and behavioral aspects in existing Causal Bayesian Networks.
- Applied developmental tools to formulate a comprehensive summary of a biological threat in a specific CCMD Area of Responsibility
- Integrated and installed a system for automated data extraction of more than 200,000 documents per day from numerous sources across the DoD, Intelligence Community, other US Government Agencies, and numerous non-Government sources with cataloging capabilities for efficient and quick recall of stored information for analysis.

**FY 2015 Plans:**

FY 2014	FY 2015	FY 2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RE / <i>Counter-Terrorism Technologies</i>

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- 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.</li> <li>- Continue work on successive multi-year efforts to develop high fidelity test articles and enhanced electronic test objects for the EOD Device Defeat program.</li> <li>- Develop impeded tools for IED triggers.</li> <li>- Continue to support Combatant Commanders' planning efforts related to CWMD-T.</li> <li>- 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.</li> <li>- Build precision shaped charges using a proven manufacturing process through the use or modification of an existing shaped charge design.</li> <li>- Transition next generation imaging technologies to allow EOD forces advanced diagnostic capabilities.</li> <li>- Integrate Natural Language Processing and Machine Reading capabilities into knowledge discovery and data/information pipeline for Combatant Command CWMD-T WMD analysis and planning.</li> <li>- Begin application of Natural Language Processing to audio, photographic, and videographic data.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Continue work on successive multi-year efforts to develop high fidelity test articles and enhanced electronic test objects for the EOD Device Defeat program.</li> <li>- Develop tools used to impede IED triggers and conduct render safe diagnostics validation tests on emergent threat articles.</li> <li>- Continue to support Combatant Commanders' planning efforts related to CWMD-T.</li> <li>- 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.</li> <li>- Build precision shaped charges using a proven manufacturing process through the use or modification of an existing shaped charge design.</li> <li>- Transition next generation imaging technologies to allow EOD forces advanced diagnostic capabilities.</li> <li>- Begin exploration and application of techniques to extract information from audio, photographic, and videographic files.</li> <li>- Apply rational choice and game theory constructs to prototype advanced Bayesian models.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	109.679	108.630	104.628



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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	<b>FY 2014</b>	<b>FY 2015</b>
<b>Congressional Add:</b> Technology Solutions Supporting Operations in Subterranean Environments	-	8.000
<b>FY 2015 Plans:</b> - Mature prototypes and demonstrate capabilities in support of the Army to disable and neutralize Weapons of Mass Destruction (WMD) and their associated facilities. DTRA will work with the Army to adapt solutions most applicable to the Army's needs and support FY 2015/FY 2016 Army experimentation and assessments of technologies to disable and neutralize underground facilities and their associated components (including WMD).		
<b>Congressional Adds Subtotals</b>	-	8.000

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	1.698	-	-	-	-	-	-	-	-	-	1.698

**Remarks**

**D. Acquisition Strategy**

Assess government, academic, and industrial performers and make selections based upon a "best fit for task" criteria. Common awardees include DoD Services, Laboratories, Department of Energy National Laboratories, and specialized university laboratories. The USSOCOM Combating WMD – Terrorism Support Program uses an evolutionary acquisition profile leveraging ongoing Defense Advanced Research Projects Agency and National Lab research programs in Natural Language Processing, Machine Reading, visual analytics directly linked to USSOCOM WMD Enterprise and supporting all Combatant Command WMD-T plans.

**E. Performance Metrics**

Number of technologies developed, delivered, proof of concept demonstrations, and successful Military Utility Assessments. A high priority focus of these metrics is increasing potential mission success and reducing the number of current gaps in Special Operations Forces capabilities to counter WMD.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RF: <i>Forensics Technologies</i>	219.783	73.919	66.707	38.427	-	38.427	39.725	40.219	41.414	42.242	Continuing	Continuing

**Note**

\*Project RF-Detection and Forensics Technologies subdivides into Project RD-Detection Technologies and Project RF-Forensics Technologies beginning in FY 2016.

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

The Forensics Technologies project under the Counterproliferation Initiatives - Proliferation, Prevention and Defeat Program Element emphasizes the advanced technology development and engineering portion of the overall National Technical Nuclear Forensics (NTNF) effort. This project supports the attribution process through development, demonstration, and transition of improved post-detonation NTNF capabilities in the areas of materials collection, debris diagnostics, materials analysis, prompt diagnostics, and device reconstruction. Efforts under this project also support international peacekeeping and nonproliferation objectives, on-site and aerial inspections and monitoring, on-site sampling and sample transport, and on- and off-site analysis to meet forensic, verification, monitoring, and confidence-building requirements. Prior to FY 2016, Project RF included funding to detect, locate, identify, track, and interdict nuclear and radiological threats. This included weapons, material, and enablers to their acquisition and development, such as nuclear expertise, financing, or unique technologies. Efforts support Department of Defense (DoD) requirements for combating terrorism, counter/nonproliferation, and homeland defense.

The decrease from FY 2014 to FY 2015 was due to reduced investment in novel advanced nuclear/radiological detection technologies and restructuring DoD-relevant monitoring and verification activities in support of the DoD proliferation monitoring mission. 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)**

<b>Title:</b> RF: Forensics Technologies	FY 2014	FY 2015	FY 2016
<b>Description:</b> Through FY 2015, Project RF includes funding to 1) develop technologies, systems and procedures for post detonation nuclear forensics, on-site and off-site analysis to meet forensic, verification, monitoring and confidence-building requirements, and 2) to detect, locate, identify, track, and interdict nuclear and radiological threats, which include weapons, material, and enablers to their acquisition and development such as nuclear expertise, financing, or unique technologies in support of DoD requirements for combating terrorism, counterproliferation and nonproliferation, homeland defense, and international initiatives and agreements. In FY 2016 this project focuses on developing technologies, systems and procedures for monitoring, verification and confidence-building requirements, and for post detonation nuclear forensics, including on-site and off-site forensic analysis.	73.919	66.707	38.427
<b>FY 2014 Accomplishments:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Conducted near-source strong-motion experiments using small High Explosive shots and lasers to generate intense shocks in soil-like materials. This, coupled with high fidelity analysis, improved confidence in regional seismic monitoring and improved the capability for detection and identification of low yield and evasive testing.</li> <li>- Conducted field experiments to investigate the detectability of underground electromagnetic pulses for purposes of monitoring compliance with nuclear testing prohibitions.</li> <li>- Conducted standoff imaging experiments for warheads deployed on strategic delivery systems that could lead to adoption of this technology for verification of future Strategic Arms Reduction Treaties.</li> <li>- Demonstrated a prototype for an on-site inspection system and virtual training tool for nuclear materials production monitoring in support of the potential Fissile Material Cutoff Treaty and the Army nuclear disablement mission.</li> <li>- Developed and tested advanced materials for particulate and gaseous radionuclide emissions associated with underground nuclear testing, in support of Air Force and international treaty monitoring requirements.</li> <li>- Delivered initial look-up tables as a stop-gap to help the Air Force Technical Applications Center predict the optimal window of opportunity for radionuclide gas detection (e.g., Xe-133) and estimated surface concentration.</li> <li>- Explored international partnerships and designed high explosive field tests to improve confidence in seismic and infrasound international monitoring systems.</li> <li>- Continued preparations for radiological/nuclear (R/N) detector program of record decisions.</li> <li>- Expanded the level of non-radiological sensor support for R/N search operations.</li> <li>- Developed, accelerated development where appropriate, demonstrated, and fielded (prototype) upgraded technical capabilities for prompt diagnostics (under DISCREET OCULUS and MINIKIN ECHO), debris sample collection, sample analysis, modeling to support nuclear device reconstruction, and forensics data to lower uncertainties/increase confidence and improve timeliness of technical nuclear forensics conclusions. Included development of new debris collection, field analysis concepts, in-laboratory timeline improvements, new signature development, improved modeling and simulation capabilities, and other supporting technologies; transfer of the prototype Harvester Particulate Airborne Collection System (PACS) to the operational user under the NTNF Joint Capability Technology Demonstration (JCTD); completed operational demonstration/exercise of the prototype Advanced Ground Sample Collection Platform (AGSCP) under the NTNF JCTD; and completed installation of a prototype ground-based prompt diagnostics system in the first of three US cities.</li> <li>- Developed methods to rapidly determine post-event nuclear weapon yields and reaction history by investigating alternative prompt nuclear weapons effects, effects on the environment, and developing/fielding prototype capabilities.</li> <li>- Continued exploiting all-source nuclear threat signatures, characteristics, and corresponding detection modalities; develop 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.</li> <li>- Continued the design and fabrication of prototype passive detection systems for determining the location and signature of nuclear material; test and characterize developmental prototype passive detection systems.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Continued to develop and demonstrate alternative neutron detection technologies for replacement of helium-3 neutron detectors.</li> <li>- Completed the development of a modular based detection system using near term technologies to generate prototypes and design packages to assist operational users.</li> <li>- Completed the development of room temperature high-resolution spectrometers to determine signature of nuclear material.</li> <li>- Continued to develop Counter-Weapons of Mass Destruction (CWMD) network technologies.</li> <li>- Continued the development of force protection modifications to R/N detector technologies.</li> <li>- Developed and assessed software improvements to current R/N detector technologies.</li> <li>- Expanded the development of CWMD/Technical Support Group training technologies for R/N search equipment.</li> <li>- Conducted first-ever outdoor testing of active and passive detectors using Special Nuclear Material-based test objects.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue identifying all-source nuclear threat signatures, characteristics, and corresponding detection modalities; continue 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.</li> <li>- Design and fabricate prototype passive detection systems for determining the location and signature of nuclear material; test and characterize developmental prototype passive detection systems.</li> <li>- Improve performance of new detector materials, imaging and spectroscopy systems, and signals analysis methods through rigorous laboratory and field testing.</li> <li>- Begin to integrate recent advances in materials science into lightweight, high-resolution radiation spectrometers for use in field operations.</li> <li>- Develop, demonstrate, and field methods to remotely monitor small and wide areas which may contain nuclear threats.</li> <li>- Research and develop advanced 3D imaging technologies for high resolution source characterization and identification to provide new and improved capabilities to detect, locate, identify, and characterize threat materials.</li> <li>- Begin transitioning multiple near term technologies to generate prototypes and design packages to assist operational users.</li> <li>- Conduct advanced and operational testing and evaluation of radiation detection systems.</li> <li>- Begin design, development, and fabrication of new radiological test objects.</li> <li>- Improve performance of new detector materials, imaging and spectroscopy systems, and signals analysis methods through rigorous laboratory and field testing.</li> <li>- Research, develop, test, evaluate, and deliver software tools and capabilities to locate and identify the signatures of Special Nuclear Materials on both existing and newly developed hardware platforms.</li> <li>- Continue development, accelerate development where appropriate, demonstrate, and field methods to remotely monitor small and wide areas which may contain nuclear threats.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Develop, accelerate development where appropriate, test, demonstrate, and field prototype ground-based sensor capabilities for post-detonation prompt diagnostics under DISCREET OCULUS.</li> <li>- Complete installation of prompt diagnostics systems in a second U.S. city.</li> <li>- 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.</li> <li>- Continue near-source strong-motion small-scale tests and high fidelity analyses for detection and identification of low yield and evasive testing.</li> <li>- Develop modular prototype using advanced materials for particulate and gaseous radionuclides detection of evasive testing in support of U.S. and international treaty monitoring requirements.</li> <li>- Provide science and technology development to support onsite inspections.</li> <li>- Begin implementing R/N detector Program of Record decisions.</li> <li>- Transition wide area search modular prototypes into an operational configuration to replace the current systems</li> <li>- Transition software improvements to current R/N detector technologies.</li> <li>- Transition selected ship search capabilities into an operational configuration for fielding to the Technical Support Groups.</li> <li>- Continue to enhance CWMD network technologies by exploiting the operational advantages of DoD's cellular communications program.</li> <li>- Continue to expand non-radiological sensor DIS support for R/N search operations.</li> <li>- Expand the development of CWMD/Technical Support Group training technologies for R/N search equipment.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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.</li> <li>- Continue to develop tools based on near-source small-scale strong-motion science to assist detection and characterization of low yield and evasive testing.</li> <li>- Conduct additional laboratory experiments with lasers to assess shock/seismic signatures from underground nuclear tests.</li> <li>- Develop international technical partnership for high explosive test calibration of seismic and infrasound elements of international monitoring stations.</li> <li>- Develop and flight-certify a modular prototype using advanced materials and techniques to collect and detect gaseous radionuclide signatures of evasive nuclear testing.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Develop long-term, optimal, integrated and operational solutions to detect, collect, and analyze gas and radionuclide signatures of nuclear testing.</li> <li>- 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.</li> <li>- Validate alternate signatures of nuclear weapons testing and develop measurement techniques.</li> <li>- Evaluate advanced methods to better integrate the collection, detection, and analysis of low-yield or evasive nuclear weapons testing signatures.</li> <li>- Provide technical support for implementation and compliance with the Open Skies Treaty.</li> <li>- Develop infrastructure and capability for iterative testing, refinement, and integration of national monitoring capabilities.</li> <li>- 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.</li> <li>- 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.</li> <li>- Stand up National Monitoring and Verification test-bed ensemble for iterative tool and method testing and refinement.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	73.919	66.707	38.427

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	34.595	35.061	9.547	-	9.547	10.128	10.443	10.684	10.899	Continuing	Continuing
• 121/0605000BR: <i>WMD Defeat Capabilities</i>	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	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 the Department of Energy National Laboratories, DoD laboratories, and DoD Services. Provide operationally effective monitoring and analysis capabilities and modernization of existing capabilities and tools to Air Force Technical Applications Center as prototype or capability demonstrations. In concert with anticipated/potential end-users such as Special Mission Units, define requirements for the development of field-able prototype systems. These systems are both stand-alone systems and

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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components of larger, integrated systems. When possible, transition stand-alone systems to programs of record or to the commercial sector for further development or distribution. Transition system components via incorporation into larger, existing systems as upgrades that advance the state-of-the art of radiation detection.

**E. Performance Metrics**

- Testing of the first algorithm fusing new nuclear threat signature with existing all-source intelligence.
- Development and operational acceptance of transitional technologies.
- Completion of the Intelligent Personal Radiation Locator program to improve speed of end user detection.
- Completion of the radiation sensor with tagging, tracking, and locating project to provide new capability for autonomous, low-visibility, long-endurance detection.
- Completion and transition of the modular radiation detector system to better align detector form to user requirements.
- Completion and transition of the Man-Portable Detection System to better align detector form to user requirements.
- Testing of the first prototype hand-held, high-resolution detector to verify detector characteristics.
- Completion of imaging and characterization test to down-select threat device characterization system for further development.
- Delivery of three plutonium test objects that will simulate/represent larger quantities of material.
- Delivery of two highly-enriched uranium test objects that will simulate/represent larger quantities of material.
- Conduct/support end-to-end NTNF capabilities exercises and supporting demonstration(s).
- Installation of prototype ground-based prompt diagnostics systems in three U.S. cities by the end of FY 2016.
- Successfully test, demonstrate, field, and/or transition nuclear forensics technologies/capabilities to an operational customer.
- Down-select new signatures, surrogate urban debris production routes, and technology requirements for field analysis capabilities.
- Support development of NTNF capabilities through development of technologies/prototypes addressing gaps and shortfalls in DoD NTNF capabilities, and through participation in the interagency process. Note: More specific metrics associated with NTNF gaps and shortfalls are classified.
- Demonstrate utility of alternate nuclear test signatures.
- Deliver useful strong-shock based analysis tool.
- Deliver advanced operational gas collection capability.
- Deliver operational prototype of multi-mission tool kit.
- Demonstrate effectiveness of cosmic-ray muon remote imaging of nuclear warhead in facilities and on platforms.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
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<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RG: <i>Defeat Technologies</i>	49.913	15.861	19.591	22.489	-	22.489	22.986	23.365	23.764	24.238	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 (CCDRs) to deny, disrupt, and defeat adversarial use of weapons of mass destruction (WMD) while minimizing collateral effects from incidentally released agents. Technology development focuses on the physical or functional defeat of (1) chemical, biological, radiological and nuclear threat materials, (2) an adversary's ability to deliver the same, and (3) the physical and non-physical support networks enabling both. It does so through the systematic identification and maturation of advanced technologies capable of defeating WMD agents or agent based processes, then integrating them into weapons, delivery systems or rapid WMD elimination capabilities. This project 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 based on this technology. The project addresses defeat of adversaries' offensive WMD programs through integration of current conventional weapons capabilities and next generation kinetic and non-kinetic solutions to provide full-spectrum asymmetric defeat options. The project addresses requirements delineated in the Quadrennial Defense Review and Strategic Planning Guidance as codified in the Joint Capabilities Integration and Development System, Service requirements documents, and Combatant Command and Agency Priority Lists for lethal and non-lethal Countering Weapons of Mass Destruction (CWMD) capability.

The increase from FY 2014 to FY 2015 was due to increased investment in CWMD Hard Target Defeat Weapons Technologies. The increase from FY 2015 to FY 2016 is due to increased investment to build and conduct the initial full-scale testing of the Next Generation of CWMD weapon concept.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RG: Defeat Technologies	15.861	19.591	22.489
<b>Description:</b> Project RG develops advanced technologies and weapon concepts and validates their applicability to C-WMD.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>- Continued developing improvements for defeat of WMD in soft targets.</li> <li>- Continued maturation of diagnostic capability to meet emerging needs and field improved capabilities for agent defeat.</li> <li>- Completed preparations to award a contract by second quarter FY 2015 to develop the Heated and Mobile Munitions Employing Rockets (HAMMER) technology concept demonstration.</li> <li>- Continued Modular Autonomous Countering WMD System (MACS) component integration.</li> <li>- Continued designing MACS Family of Systems architecture.</li> </ul>			
<b>FY 2015 Plans:</b>			
<ul style="list-style-type: none"> <li>- Develop access denial or denial-of-use technologies for WMD targets.</li> </ul>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Complete Next Generation Counter WMD weapon design.</li> <li>- Initiate full-scale lethality tests for Next Generation Agent Defeat weapon.</li> <li>- Continue work on functional defeat test-bed with initial test events.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Manufacture initial Next Generation CWMD weapon components and sub-systems and conduct sub-system and initial full scale static test.</li> <li>- Continue development of access denial or denial-of-use technologies for CWMD applications.</li> <li>- Continue functional defeat system development and testing.</li> <li>- Conduct MACS follow-on incremental component/system demonstration.</li> <li>- Conduct functional defeat system demonstration.</li> <li>- Transition initial MACS concept to Military Services/CCDRs.</li> <li>- Develop and integrate MACS Family of System Enabling Technologies.</li> <li>- Plan MACS Family of Systems component demonstration.</li> <li>- Mature diagnostic capability to meet emerging needs and field improved capabilities for agent defeat.</li> <li>- Initiate HAMMER Subsystem Test.</li> <li>- Complete HAMMER Weapon Design.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	15.861	19.591	22.489

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	14.270	10.982	11.769	-	11.769	11.395	11.700	11.965	12.203	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
Assess government, academic, and industrial performers and make selections based upon a "best fit for task" criteria. Common awardees include DoD Services' laboratories, Department of Energy National Laboratories, and specialized university laboratories. In addition, partnering with Government entities, such as the Air Force Life Cycle Management Center, enables the Defense Threat Reduction Agency to develop a sound transition strategy to the warfighter.

**E. Performance Metrics**  
Complete MACS Operational Demonstration and transition technology to a Quick Reaction Capability program.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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<p>Complete HAMMER weapon design and integration and conduct a technical demonstration. Complete development and testing of improved CWMD biological agent defeat weapon fills to provide greater than 95% performance improvement over existing high explosive fills. Push promising access denial or denial-of-use technologies for CWMD applications to Technology Readiness Level 4/5.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>					<b>Project (Number/Name)</b> RI / <i>Nuclear Survivability</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RI: <i>Nuclear Survivability</i>	26.641	5.939	5.570	6.191	-	6.191	6.640	6.727	6.814	6.942	Continuing	Continuing

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

The Nuclear Survivability project develops Radiation Hardened Microelectronics and survivability standards; provides radiation dose assessments; and provides for the execution of force-on-force evaluations and nuclear weapons surety efforts to enhance the protection of nuclear resources.

The Nuclear Test Personnel Review (NTPR) Program, established in public law, confirms participation in nuclear testing and related events and provides radiation dose assessments for atomic veterans. The Defense Threat Reduction Agency (DTRA) provides subject matter expertise for the dose reconstructions. The NTPR is administered by the Department of Veterans Affairs and the Department of Justice for radiogenic disease compensation programs.

The Mighty Guardian force-on-force tests aid in satisfying requirements for the Military Services by providing denial of access to nuclear resources in all environments: operational, storage, and in transit. The results of the evaluations identify security vulnerabilities to weapons systems that are then addressed through targeted application of research and development projects requested by the resource owners. These projects are designed to demonstrate, test, and evaluate security enhancement systems prior to the Services' procurement.

Nuclear Weapons Surety, as tasked by the Department of Defense (DoD) Nuclear Weapon System Safety Program, provides Combatant Commands (CCMDs), Military Services, and Joint Chiefs of Staff with technical analyses, studies, research, and experimental data necessary to identify and quantify risks of plutonium dispersal and loss of assured safety due to accidents, fires, or natural causes during peacetime operations of the nation's nuclear weapon systems. Additionally, this will provide studies necessary to quantify the probability of success against targeted terrorist attacks on DoD facilities, while leveraging these risk assessment advances. It also provides new and innovative technologies for the protection of nuclear resources in support of CCMDs and Military Services.

The decrease from FY 2014 to FY 2015 was due to the net impact of increased investment in stockpile logistics and decreased investment in nuclear surety in FY 2015. The increase from FY 2015 to FY 2016 is due to increased investment in the nuclear surety program.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RI: Nuclear Survivability	5.939	5.570	6.191
<b>Description:</b> Project RI provides the capability for DoD nuclear forces and their associated control and support systems and facilities in wartime to avoid, repel, or withstand attack or other hostile action, to the extent that essential functions can continue or be resumed after the onset of hostile action.			
<b>FY 2014 Accomplishments:</b>			
- Tested and characterized radiation effects on advanced 32nm technology.			

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<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RI / <i>Nuclear Survivability</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Conducted Mighty Guardian XVI force-on-force test to evaluate nuclear security policy for the Prime Nuclear Airlift Force mission at Kirtland Air Force Base, NM.</li> <li>- Conducted research, development, test, &amp; evaluation (RDT&amp;E) on physical security technologies designed to enhance protection of the nuclear stockpile as determined by the Services.</li> <li>- Performed 1,600 written atomic veteran claim responses.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop Satellite Protection Standard.</li> <li>- Continue RDT&amp;E on physical security technologies designed to enhance protection of the nuclear stockpile as determined by the Services.</li> <li>- Develop next generation of Defense Integration and Management of Nuclear Data Services (DIAMONDS) network and infrastructure design, leverage information technology (IT) improvements, and modernize DIAMONDS software code; and conduct preliminary design review and meet with users.</li> <li>- Continue out-of-cycle test planning and execution in support of Mighty Guardian XV and plan and execute Mighty Guardian XVII Force-on-Force test to evaluate nuclear security policy for convoy operations in support of Francis E. Warren Air Force Base, WY. Test will be conducted at Camp Guernsey, WY.</li> <li>- Address 1,200 written atomic veteran claim responses.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Publish Satellite Protection Standard.</li> <li>- Address 1,000 written atomic veteran claim responses.</li> <li>- 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.</li> <li>- Continue the development of the next generation of DIAMONDS network and infrastructure design.</li> <li>- Leverage IT improvements and recommendations from industry/Agency.</li> <li>- Modernize DIAMONDS software code with design reviews and meeting with users for future needs/requirements.</li> <li>- Field test-bed system at select user sites and continue to evaluate system.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.939	5.570	6.191

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	20.351	19.416	29.988	-	29.988	30.264	30.826	31.592	32.224	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Assess government and industrial performers and make selections based upon a "best fit for task" criteria which includes demonstrations of components and capabilities for transition. Common awardees include DoD Services' laboratories, Department of Energy National Laboratories, and specialized university laboratories.

**E. Performance Metrics**

Achieve Radiation Hardened and Radiation Hardened by Design 90nm application-specific integrated circuit design flow capability.

Successful completion of Mighty Guardian exercises is measured by completing:

- all necessary planning and logistics steps,
- troops arriving when required,
- training completed,
- execution of the exercise,
- redeployment of forces, and
- publishing a final report within 90 days of completion.

Successful completion of RDT&E for physical security technologies is determined by:

- performers completing the project on-time and within budget,
- all stated tasks in the statement of work/objectives are met,
- proper reporting and coordination of decision areas,
- receipt of final reports closing out the project, and
- transitioning the project to the requesting Military Service.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
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<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RM: <i>WMD Counterforce Technologies</i>	74.392	29.644	29.346	20.717	-	20.717	22.846	23.216	23.739	24.212	Continuing	Continuing

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

The Weapons of Mass Destruction (WMD) Counterforce Technologies project develops, integrates, demonstrates and transitions emerging/innovative technologies to find, characterize, plan for the defeat of, and assess WMD threats. The two major components of this project are: (1) WMD battlespace awareness and (2) counter WMD (CWMD) weapons effects and planning tools. WMD battlespace awareness efforts seek to provide warfighters with capabilities to find, characterize, and assess WMD threats. This project provides capabilities through the development and integration of multi-mission Unmanned Aerial Systems payloads to emplace sensing technologies, and remotely sense, identify, track, and target WMD-related threats; and, through the development and integration of low visibility, stand-off, and man-portable chemical agent and biological agent intelligence, surveillance, and reconnaissance technologies to sense, identify, track, target, and assess WMD-related threats. The CWMD weapons effects and planning tools effort develops modernized, fast-running, and validated CWMD planning tools and integrates modeling and simulation software to aid Combatant Commanders' targeting and aid weapons officers in choosing the proper weapon, fuze, and employment parameters to optimize the defeat of WMD and related hard targets.

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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RM: WMD Counterforce Technologies	29.644	29.346	20.717
<b>Description:</b> Project RM provides (1) novel and enhanced weapons energetic materials and structures, full-scale testing of CWMD weapons effects, weapons effects modeling, and weapon delivery optimization, (2) WMD sensor, surveillance, and data processing technologies, and (3) Technical Reachback support.			
<b>FY 2014 Accomplishments:</b>			
- Developed and delivered Integrated Munitions Effectiveness Assessment (IMEA) software 11.1 (Software improvements include; Cratering model improvements Collateral Damage Estimation integration, Warfighter Wizard improvements, Large Caliber Penetrator enhancements).			
- Developed and delivered Vulnerability Assessment & Protection Option (VAPO) software 6.0 (Improved Blast Model/Ability to predict blast effects on complex 3D models/New close-in blast on concrete columns/Improved window response model/Added Forward Operating Base (FOB) models).			
- Developed and delivered Vulnerability Assessment & Protection Option (VAPO) software 6.1 (structural and human injury damage contours for 3D models).			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Delivered a modified version of Vulnerability Assessment &amp; Protection Option (VAPO) software to the Norway Defense Estates Agency (NDEA) under the US/Norwegian Hardened Facility Analysis Project Agreement (HFA PA).</li> <li>- Completed WMD Aerial Collection System, Army Shadow Unmanned Aircraft System (UAS) integration R&amp;D efforts as required for future Army procurement and fielding.</li> <li>- Conducted Shadow UAS and WACS payload launcher and Tactical Automatic Landing System qualification testing necessary for future Air Worthiness Certification.</li> <li>- Completed technical support requirements for Army validation of the WMD Aerial Collection System post-strike battle damage assessment. Operational Needs Statement now under consideration by the Army Council for Combatting Weapons of Mass Destruction Capability Working Group.</li> <li>- Conducted warfighter training on WMD Aerial Collection System hardware, and provided exercise support during the Warpath III and Ulchi Freedom Guardian USFK command post exercises.</li> <li>- Completed a comprehensive CBRN Air-Droppable, Remotely Deployed Sensor (CARDS) delivery system Proof-of-Concept demonstration culminating in development of the preliminary design for a platform incorporating a high-efficiency aerodynamic profile and propulsion system.</li> <li>- Planned and conducted a key Table Top Exercise (TTX) to solicit Community of Interest requirements for CBRN sensor emplacement operations and facilitate continued end-user input during the development process.</li> <li>- Conducted a VTOL Autonomous Payload Emplacement System (VAPES) precision emplacement proof-of-concept demonstration using both EO and IR optical navigation solutions, and custom designed an autopilot and sensor system on a VTOL platform.</li> <li>- Completed construction and instrumentation of the Robotics FIT sensor test bed.</li> <li>- Conducted extensive sensor verification and validation testing including operational demonstrations to leadership and other interested parties.</li> <li>- Conducted development of multi-mode sensor systems for use in detection of small-scale biological threats.</li> <li>- Initiated development of WMD Intelligence, Surveillance, and Reconnaissance (ISR) system architecture.</li> <li>- Conducted WMD ISR signature characterization and phenomenology research.</li> <li>- Developed WMD Intelligence, Surveillance, and Reconnaissance (ISR) system architecture.</li> <li>- Conducted WMD ISR signature characterization and phenomenology research.</li> <li>- Continued development and integration of agent based modeling capabilities, including secondary and tertiary effects linked with social behavior resulting from WMD insult.</li> <li>- Demonstrated Silent Scout Chemical/Rad Sensor.</li> <li>- Demonstrated Nano-scale Transformational Rad Tag.</li> <li>- Continued to support the Combatant Commands (CCMDs) with the further refinement and development of operation center critical technologies that will enhance the capability of rapid response in relation to next generational reachback capabilities.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>- Began development of technologies and methods for comprehensive WMD consequence assessment to potentially include PMESII (Political, Military, Economic, Social, Infrastructure, and Information) implications – supports United States Strategic Command's consequence of execution analyses.</p> <p>- Enhanced parallel version of transport and dispersion code to allow faster and more complex data analysis execution on high performance computing resources.</p> <p>- Supported requests for information providing technical advisory reachback support on WMD effects and consequences of over 2,080 requests for information.</p> <p><b>FY 2015 Plans:</b></p> <p>- Develop parallel version of transport and dispersion code to allow faster analysis execution on high performance computing resources. Coupled with FY 2014 enhancements, provide upgraded capability to run faster, finer, and larger analyses.</p> <p>- Develop and integrate agent based modeling capabilities.</p> <p>- Demonstrate a novel chemical/biological sensor for a CWMD Tagging, Tracking, and Locating application.</p> <p>- Demonstrate a multi-modal chemical sensor integrated in a Tagging, Tracking, and Locating device.</p> <p>- Conduct a demonstration of scintillating transformational material for CWMD application within an operational architecture.</p> <p>- Support U.S. Army Program Manager (PM) UAS in completing WMD Aerial Collection System transition activities, fielding, and procurement.</p> <p>- Design, integrate, and demonstrate CARDS payload captive carry system for CBRN sensor packages.</p> <p>- Conduct a CARDS system demonstration of precision emplacement using representative CBRN sensor packages.</p> <p>- Conduct Phase I demonstration of enhanced near-term bio-search/detection sensors for Department of Defense (DoD) and Intelligence Community customers.</p> <p>- Conduct down-select of multi-mode sensor systems for bio-terrorism threat detection.</p> <p>- Initiate Phase II development of select sensor systems for use in detecting small-scale biological labs.</p> <p>- Deliver the 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.</p> <p>- Develop coarse, worldwide population and activity database to enable rapid emergent refined, country level synthetic infrastructures for agent-based improved urban site modeling operational capabilities.</p> <p>- Deliver capabilities developed in FY 2014 (IMEA 11.1).</p> <p>- Demonstrate high performance computing integration using improved software infrastructure developed in FY 2014.</p> <p>- Develop 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.</p> <p>- Start development to support non-kinetic weapons effects and full-spectrum defeat capability.</p> <p>- Develop improved Agent Defeat modeling capabilities for WMD target attack planning.</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RM / <i>WMD Counterforce Technologies</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Deliver Targeting/Weaponizing academics and targeting recommendation packages supporting CCMD requirements.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Transition initial biological search technologies (Bio-ISR Spiral 1) to DoD and Interagency end-users.</li> <li>- Continue technology development for enhanced area search, localization, and point detection/ identification tools for biological threats of interest (Spiral 2).</li> <li>- Initiate planning for Bio-ISR Spiral 2 demonstration of improved biological search technologies.</li> <li>- Demonstrate unmanned platform capable of high-altitude/long-range glide, vertical takeoff and landing transition and egress for covert emplacement of CBRN payloads/sensors.</li> <li>- Design, develop, integrate, and test computer vision, autonomous navigation on unmanned systems to enable precise CBRN payload emplacement.</li> <li>- Complete WMD Aerial Collection System transition activities, fielding, and procurement.</li> <li>- Deliver agent defeat modeling capabilities (Human Injury, Dynamic Pressure, and Structural Response) for the DTRA's Reachback mission.</li> <li>- Utilize high performance computing capabilities to enhance scalable model fidelity.</li> <li>- Enhance software development architecture for more efficient integration of modeling and simulation capabilities into planning tools.</li> <li>- Deliver prototype 64-bit version of counter WMD modeling and simulation planning tools for analysis of large data sets.</li> <li>- Develop improved agent defeat modeling capabilities for WMD target attack planning.</li> <li>- Deliver Targeting/Weaponizing academics and targeting recommendation packages for CCMDs.</li> <li>- Develop and demonstrate a low-visibility sensor / detection device for chemical search missions.</li> <li>- Demonstrate nano-material based sensor/reporting system for detection of biological/chemical threats.</li> <li>- Conduct prototype demonstration of scintillating transformational material for CWMD application.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	29.644	29.346	20.717

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	14.660	13.787	13.526	-	13.526	13.642	13.958	14.427	14.714	Continuing	Continuing

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RM / <i>WMD Counterforce Technologies</i>

**D. Acquisition Strategy**

Assess government, academic, and industrial performers and make selections based upon a "best fit for task" criteria. Common awardees include DoD Services, Laboratories, DoE National Laboratories, and specialized university laboratories. Technologies are transitioned to users via Service and Interagency Program Management Offices (e.g. WMD Aerial Collection System transitioned via U.S. Army PM UAS; Counter WMD Planning Tools via Joint Munitions Effectiveness Manual Weaponering System and Target Acquisition Workstation).

**E. Performance Metrics**

Completion of WMD Aerial Collection System transition activities, fielding, and procurement to U.S. Army PM UAS.  
Demonstration of acceptable standoff detection range for WMD reconnaissance system.  
Demonstration of a low-visibility sensor/detection device for Chemical search missions.  
Demonstration of high performance computing integration using improved software infrastructure for enhanced modeling and simulation capabilities.  
Demonstration of WMD Tag, Track, Locate technologies.  
Complete test for computer vision, autonomous navigation on unmanned systems to enable precise CBRN payload emplacement.  
Demonstration of unmanned platform capable of high-altitude/long-range glide, vertical takeoff and landing transition and egress for covert emplacement of CBRN payloads/sensors.  
Delivery of counter WMD planning capabilities (Near Miss Lethality model/Multi-Hit Weapon model/Ultra-High Performance Concrete Penetration model/Large Caliber Penetrator modeling and simulation enhancements/Glass Curtain Wall model/Vehicle Borne Improvised Explosive Device model/Human Injury model/Blast Dynamic Pressure model/Structural Response model) to counter WMD planners.  
Delivery of scheduled Targeting/Weaponering academics to WMD defeat planners.  
Delivery of requested target recommendation packages and weaponering solutions to CCMDs.  
Delivery of 64-bit version of counter WMD modeling and simulation planning tools for improved processing capability of large and complex data sets.  
Transition of initial biological search technologies (Bio-ISR Spiral 1) to DoD and inter-agency end-users.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RR / <i>Combating WMD Test and Evaluation</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RR: <i>Combating WMD Test and Evaluation</i>	1.810	0.092	-	-	-	-	-	-	-	-	Continuing	Continuing

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

Project RR provides a unique national test bed capability for simulated 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 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 2014	FY 2015	FY 2016
<b>Title:</b> RR: Combating WMD Test and Evaluation	0.092	-	-
<b>Description:</b> Project RR provides a unique national test bed capability for simulated 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 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>FY 2014 Accomplishments:</b> - Provided test support to a program that demonstrated a Bremsstrahlung-based active interrogation system capable of detecting special nuclear material at standoff distances through various construction materials.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.092	-	-

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	11.543	11.060	11.182	-	11.182	11.709	11.984	12.315	12.560	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RR / <i>Combating WMD Test and Evaluation</i>

**E. Performance Metrics**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>				<b>Project (Number/Name)</b> RT / <i>Target Assessment Technologies</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RT: <i>Target Assessment Technologies</i>	98.110	47.478	53.850	56.065	-	56.065	43.717	27.377	28.104	28.663	Continuing	Continuing

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

For some weapons of mass destruction (WMD) targets and hard and deeply buried targets (HDBTs), physical destruction may not be possible, practical, or desirable with current conventional weapons and employment techniques. It may be possible or preferable to achieve operational objectives by denying or disrupting the mission or function of the target facility. Functional defeat, however, requires extensive and highly detailed analysis of the target. The functional defeat process includes finding and identifying a facility, characterizing its function and physical layout, determining its vulnerabilities to available defeat mechanisms, planning and executing an attack, assessing damage, and if necessary, suppressing reconstitution efforts and re-attacking the facility. Target Assessment Technologies develops for both the Combatant Commands (CCMDs) and the Intelligence Community (IC), the analytical tools and processes required to find and characterize WMD targets and HDBTs; and then, in near-real-time, assess the results of attacks against those targets. Overall objectives are to develop new methodologies, processes and technologies for detecting, locating, identifying, physically and functionally characterizing, modeling, and assessing new and existing hard and deeply buried targets to support physical or functional defeat. Applying these processes to WMD time-dependent target characterization and threat analysis presents a further technical challenge.

The increase from FY 2014 to FY2015 was due to increased investment in the development and integration of high-priority find, characterize and assess sensor technologies and supporting algorithms and software. This project has the only identified solution capable of meeting a time sensitive mission critical technology gap. The increase from FY 2015 to FY 2016 reflects the continuing increased investment in the development and integration of high-priority find, characterize and assess sensor technologies and supporting algorithms and software.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RT: Target Assessment Technologies	47.478	53.850	56.065
<b>Description:</b> Project RT provides the COCOMs and the IC with technologies and processes to find and characterize WMD targets and HDBTs and then assess the results of attacks against those targets.			
<b>FY 2014 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>- Demonstrated Denied Area Persistent Sensor System enhanced detection/discrimination capability.</li> <li>- Developed a chemical/biological virtual laboratory model for support of foreign weapons program analysis.</li> <li>- Collected data and then developed an initial evaporative cooling analytical validation and verification model for support of the Underground Targeting and Analysis System thermal analysis capability.</li> <li>- Demonstrated an initial thermal process model interface for the Underground Targeting and Analysis System (UTAS).</li> <li>- Provided target characterization training for the Underground Facility and WMD target defeat communities.</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RT / <i>Target Assessment Technologies</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Completed requirements analysis, development and test plans, risk analysis and mitigation plans for prototype (Spiral 1) sensor development.</li> <li>- Developed initial detection algorithms for support of the prototype sensor development.</li> <li>- Developed and demonstrated breadboard version of the prototype sensor.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Deliver Find Characterize and Assess detection and characterization on-node data fusion algorithm improvements in support of near-real time target update capabilities.</li> <li>- Deliver Find Characterize and Assess UTAS tool suite interface improvement for near real time support of IC target characterization and assessment.</li> <li>- Develop Adversarial Route Analysis Tool with Global Expansion for support of counter-WMD intelligence analysis.</li> <li>- Develop Full Operational Capability (FOC) for UTAS thermal process modeling capability in support of IC target analysis.</li> <li>- Develop Find Characterize and Assess detection and characterization hardware and software to support near-real time target update capabilities.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Develop, and demonstrate Nuclear WMD Defeat Model for support of IC counter-WMD analysis and functional defeat targeting.</li> <li>- Develop and demonstrate Chemical–Biological Weapons Emerging Threats Model capability for support of IC counter-WMD analysis and course of action selection.</li> <li>- Demonstrate FOC for UTAS thermal process modeling capability for support of IC functional vulnerability analysis of hard or deeply buried WMD related targets.</li> <li>- 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.</li> <li>- Conduct developmental demonstration and testing of Spiral 1 prototype sensor nodes in a realistic mission-representative environment.</li> <li>- 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.</li> <li>- Deliver 24 Spiral 1 prototype deployable sensor units.</li> <li>- Develop new and enhanced (range/sensitivity) detection capabilities and enhanced delivery capabilities as Spiral 2 of the deployable sensor project.</li> <li>- Produce additional prototype sensor units for follow-on (Spiral 2) integration testing and algorithm validation.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	47.478	53.850	56.065

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 0603160BR / <i>Counterproliferation Initiatives - Proliferation, Prevention and Defeat</i>	<b>Project (Number/Name)</b> RT / <i>Target Assessment Technologies</i>

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

**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 the Department of Defense (DoD) Services' Laboratories, Department of Energy National Laboratories, and specialized university laboratories. Mature analytical tool capabilities are transitioned to the IC through partnership with the Defense Intelligence Agency Defense Counterproliferation Program.

**E. Performance Metrics**

- Improve capability of IC to physically and functionally characterize WMD related targets through successful incorporation of WMD systems and process characterization modeling and assessment capabilities into the Underground Targeting and assessment System analytical tool.
- Improve Underground Targeting and Analysis System characterization capabilities by incorporating functionality to handle a broader range of WMD-related equipment.
- Improve sensor-on-node data fusion capability for deployable ground sensors in order to reduce communications burden.
- Improve DoD's ability to analyze adversary WMD development capability through new modeling and analysis tool capabilities.
- Demonstrate a compact, low power integrated sensor-on-node seismic and acoustic system with an operating prototype for characterization of WMD related targets by the IC for support of CCMD targeting.
- Deliver a virtual laboratory for chemical, biological, and radiological models as a framework to analyze adversary WMD capabilities.
- Demonstrate a deployable, remote sensor capability in response to a documented emerging operational need.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	58.555	12.511	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	Continuing	Continuing
RF: <i>Forensics Technologies</i>	0.000	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	Continuing	Continuing
RL: <i>Nuclear &amp; Radiological Effects</i>	58.555	5.644	-	-	-	-	-	-	-	-	-	64.199

**Note**

\*Project RF-Detection and Forensics Technologies subdivides into projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016. This impacts these projects in PE 0602718BR and PE 0603160BR. See C. Other Program Funding Summary below.

\*Integrated Weapons of Mass Destruction Toolset investments are to be completed in FY 2014.

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

The mission of the Defense Threat Reduction Agency is to safeguard the United States and its allies from global weapons of mass destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly aligns with several National and Department of Defense (DoD) level guidance/vision documents. For Research, Development, Test & Evaluation, these documents include the National Security Strategy, Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), Quadrennial Defense Review, National Strategy for Combating Terrorism, 2014 DoD Strategy for Countering WMD, National Strategy to Combat WMD, Defense Planning Guidance, Guidance for Employment of the Force, National Military Strategic Plan for the War on Terrorism, and Joint Strategic Capabilities Plan (including the Nuclear Annex). To achieve this mission, DTRA established strategies and tasks to meet their principal objectives. These objectives are: 1) Ensure a safe, secure, and effective nuclear deterrent; 2) Anticipate emerging WMD threats; 3) Provide Combating WMD situational awareness; 4) Assess infrastructure and personnel vulnerabilities; 5) Prevent proliferation and use of WMD; 6) Defend against WMD threats; 7) Defeat WMD threats; 8) Recover from WMD consequences; and 9) Synchronize countering WMD activities.

This program element supports the development of system capabilities for the countering weapons of mass destruction (CWMD) mission. This funding specifically supports technologies to meet International Monitoring System technology requirements in support of nuclear arms control activities under the Nuclear Arms Control Technology program. Through FY 2014, funding also supported the development of collaborative CWMD analysis capabilities between the DoD and key interagency and international partners through a globally accessible net-centric framework in the form of the Integrated Weapons of Mass Destruction Toolset.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	12.901	6.887	7.156	-	7.156
Current President's Budget	12.511	6.887	7.156	-	7.156
Total Adjustments	-0.390	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.390	-			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities				<b>Project (Number/Name)</b> RF / Forensics Technologies			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
RF: <i>Forensics Technologies</i>	-	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	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 for an enhanced level of investment in research on radionuclide sampling and analytical capabilities.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RF - Forensics Technologies	6.867	6.887	7.156
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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- Supported Office of the Secretary of Defense (OSD) treaty management objectives and participation in joint U.S.-International Comprehensive Test Ban Office Provisional Technical Secretariat sponsored technology development exchanges and developmental exercises in support of technology development and IMS operations and maintenance objectives.

- Developed prototype sensor, station calibration, and metrology planning.

- Developed monitoring station array element calibration with focus on developing in-situ array calibration and performance monitoring capabilities.

- Conducted signal capture and identification studies to reduce signal clutter and false alarms; and improve noise rejection methods and algorithms.

- Continued radio-xenon gas detection system development and research. Studied and evaluated atmospheric and subsurface xenon backgrounds and transport phenomenon.

- Continued a study of baseline noble gas detection schemes. Selected the pathway for future radio-xenon detection options providing enhanced detection and operational capabilities and reliability.

- Completed infrasound information system enhancements and development of infrasound propagation models to improve detection, identification, and discrimination of sources and signatures of interest.

- Conducted field experiments to collect data required to constrain and validate models. Models will include fine-scale atmospheric conditions, topography, 3-D winds and effects of non-linear propagation.

- Continued to develop a portable/rapid deployable infrasound array and standard sound source for calibrating infrasound stations/ arrays.

- Continued research and development on support system to collect and prioritize station operator requirements to inform required design-build-test activities across the monitoring system.

- Continued U.S. IMS sensor event signal identification technique research and development of the transportable xenon laboratory (TXL) and associated xenon detection system and prepare for international deployment exercises and demonstrations. Work performed in advance of the TXL foreign deployment will establish a baseline for this xenon monitoring capability and provide unique opportunities to diagnose and resolve remaining technical concerns and issues, including investigating the "memory effect" recently encountered in these systems as a result of the unintended radio-xenon releases from the Fukushima reactors. Continued infrasound event clutter and false alarm reduction and noise mitigation analyses.

- Drove improvements in radionuclide detection and measurement, including xenon gas collection/analysis systems research. Evaluate detection limits, and yields. Technical requirements continue to dictate that the U.S. radionuclide laboratory (RL-16) gas system requires additional capability to meet required detection thresholds.

- Develop test methods to increase xenon gas yields, improve detection efficiencies, and decrease dead volume. To ensure RL-16 is making a high precision measurement, analysis samples will be peer reviewed and calibrated at certified laboratories.

**FY 2015 Plans:**

- Continue to improve the sustainability, reliability, and effectiveness of the 36 IMS stations

<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>- Complete Provisional Technical Secretariat certification of U.S. IMS Infrasound monitoring station on Wake Island and Auxiliary Seismic monitoring station on Shemya Island, Alaska.</li> <li>- Continue to improve U.S. IMS operations efficiency, capabilities, and quality of monitoring data and decrease false alarms.</li> <li>- Continue support of OSD treaty management objectives.</li> <li>- Continue participating in International Comprehensive Test Ban Office Provisional Technical Secretariat sponsored technology development exchanges and field exercises.</li> <li>- Continue research and development to inform required design-build-test activities across the monitoring system.</li> <li>- Continue IMS prototype sensor and station calibration capabilities development.</li> <li>- Continue development of monitoring station in-situ calibration and performance monitoring capabilities.</li> <li>- Continue performing experiments or field demonstrations to evaluate monitoring system performance.</li> <li>- Continue to enhance baseline radionuclide particulate and noble gas detection capabilities, efficiency, and reliability.</li> <li>- Continue development and calibration of infrasound and seismic propagation models.</li> <li>- Continue field experiments to collect data required to calibrate and constrain and validate IMS relevant propagation models.</li> <li>- Continue U.S. IMS sensor event signal identification technique research and development of the transportable xenon laboratory.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue support of OSD Threat Reduction and Arms Control treaty management objectives.</li> <li>- Continue development and implementation of IMS sensor and station calibration capabilities.</li> <li>- Continue development and implementation of in-situ calibration concepts.</li> <li>- Participate in CTBT Organization Provisional Technical Secretariat sponsored technology development exchanges.</li> <li>- Sponsor U.S. specific technology development exchanges.</li> <li>- Develop and implement U.S. IMS specific life-cycle management software to enable costs effective and efficient spare part replacement and long-range recapitalization.</li> <li>- Develop and implement concepts to improve the reliability of the radionuclide stations.</li> <li>- Develop and implement concepts to improve radionuclide and infrasound signal to noise.</li> <li>- Improve and develop system of health monitoring software.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	6.867	6.887	7.156

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	<b>Cost To Complete</b>	<b>Total Cost</b>
• 23/0602718BR: <i>WMD Defeat Technologies</i>	34.595	35.061	9.547	-	9.547	10.128	10.443	10.684	10.899	Continuing	Continuing
• 30/0603160BR: <i>Proliferation Prevention and Defeat</i>	73.919	66.707	38.427	-	38.427	39.725	40.219	41.414	42.242	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**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, and other CTBT Organization communications. 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 in accordance with CTBT requirements. CTBT IMS data availability/timeliness performance specifications/requirements 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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Threat Reduction Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities	<b>Project (Number/Name)</b> RF / Forensics Technologies
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Radionuclide Analysis Technology	FFRDC	Pacific Northwest National Laboratory : Richland, WA	-	2.317	Jun 2014	1.000	Jun 2015	1.000	Jun 2016	-		1.000	4.480	8.797	8.797
Waveform Analysis Technology	C/Various	Space and Missile Defense Labs : Huntsville, AL	-	1.669	Aug 2014	-		-		-		-	-	1.669	1.669
Radionuclide Analysis Improvements	C/CPFF	General Dynamics : Fairfax, VA	-	0.500	Jun 2014	0.500	Mar 2015	0.500	Mar 2016	-		0.500	2.240	3.740	3.740
Waveform Analysis Improvements	TBD	TBD : TBD	-	-		0.500	Apr 2015	0.500	Apr 2016	-		0.500	2.240	3.240	3.240
Waveform Testing and Analysis	FFRDC	Sandia National Laboratory : Albuquerque, NM	-	0.506	Mar 2014	0.506	Mar 2015	0.506	Mar 2016	-		0.506	2.267	3.785	3.785
Sample Analysis	MIPR	Air Force Technical Application Center : Patrick AFB, FL	-	0.800	Aug 2014	0.800	Aug 2015	0.800	Aug 2016	-		0.800	3.552	5.952	5.952
Infrasound Standards and Improvements	TBD	TBD : TBD	-	-		1.000	Mar 2015	1.000	Mar 2016	-		1.000	4.480	6.480	6.480
Deficiency Improvement Research & Development	TBD	TBD : TBD	-	-		1.481	Mar 2015	1.750	Mar 2016	-		1.750	5.880	9.111	9.111
Engineering & Technical Services	C/CPFF	TASC, Inc. : Chantilly, VA	-	0.800	Dec 2013	0.800	Dec 2014	0.800	Dec 2015	-		0.800	3.584	5.984	5.984
<b>Subtotal</b>			-	6.592		6.587		6.856		-		6.856	28.723	48.758	48.758

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
A&AS Support to Program Office	C/CPFF	TASC, Inc. : Chantilly, VA	-	0.200	Dec 2013	0.200	Dec 2014	0.200	Dec 2015	-		0.200	0.888	1.488	1.488
Travel	C/Various	Various : Various	-	0.075		0.100		0.100		-		0.100	0.444	0.719	0.719
<b>Subtotal</b>			-	0.275		0.300		0.300		-		0.300	1.332	2.207	2.207

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

Appropriation/Budget Activity	R-1 Program Element (Number/Name)				Project (Number/Name)				
0400 / 5	PE 0605000BR / WMD Defeat Capabilities				RF / Forensics Technologies				
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	-	6.867	6.887	7.156	-	7.156	30.055	50.965	50.965

**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.



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Nuclear Arms Control Technology (NACT)</i></b>	
Waveform and radionuclide monitoring capability enhancements	
System reliability and availability enhancements	
System operations and efficiency improvements	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Nuclear Arms Control Technology (NACT)</i></b>				
Waveform and radionuclide monitoring capability enhancements	2	2014	4	2020
System reliability and availability enhancements	2	2014	4	2020
System operations and efficiency improvements	2	2014	4	2020

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities	<b>Project (Number/Name)</b> RL / Nuclear & Radiological Effects
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RL: Nuclear & Radiological Effects	58.555	5.644	-	-	-	-	-	-	-	-	-	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 modeling and simulation codes to provide an integrated suite of Combating WMD 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 2014	FY 2015	FY 2016
<b>Title:</b> RL: Nuclear & Radiological Effects	5.644	-	-
<b>Description:</b> 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 Combating WMD decision support capabilities.			
<b>FY 2014 Accomplishments:</b>			
- Installed Integrated Weapons of Mass Destruction Toolset version 3.32 (Joint Collaborative Analysis Model specific components only) at Ministry of National Defense, Republic of China for joint operational training and planning collaboration between U.S. forces and the Republic of China forces.			
- Fielded Integrated Weapons of Mass Destruction Toolset version 3.32 to United States Strategic Command, United Kingdom, Supreme Headquarters Allied Powers Europe, Office of the Secretary of Defense, U.S. Army Nuclear and Combating WMD Agency, and DTRA's Technical Reachback.			
- Broadly deployed Integrated Weapons of Mass Destruction Toolset First Responder Tool (FiRST) iOS and Android application to Department of Homeland Security and DTRA users with consequence assessment mission requirements.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.644	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 23/0602718BR: <i>WMD Defeat Technologies</i>	31.754	32.352	23.053	-	23.053	23.769	23.899	24.308	24.794	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The program for Integrated Weapons of Mass Destruction Toolset is executed through a competed cost plus fixed-fee contract. This contract is 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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Threat Reduction Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities	<b>Project (Number/Name)</b> RL / Nuclear & Radiological Effects
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
System Development - IWMDT	C/CPAF	Leidos : San Diego, CA	20.209	1.071	May 2014	-		-		-		-	-	21.280	21.280
System Development - NuCS	C/CPFF	Applied Research Associates : Raleigh, NC	4.930	0.950	Jun 2014	-		-		-		-	-	5.880	5.880
System Development - COE	C/CPFF	Titan : Kingstowne, VA	5.533	-		-		-		-		-	-	5.533	5.533
System Development - Component Contracts	C/Various	Various : Various	5.073	-		-		-		-		-	-	5.073	5.073
<b>Subtotal</b>			35.745	2.021		-		-		-		-	-	37.766	37.766

<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Configuration Management	C/CPAF	Leidos : San Diego, CA	0.401	0.540	May 2014	-		-		-		-	-	0.941	0.941
Software Integration	C/CPAF	Leidos : San Diego, CA	6.810	0.740	May 2014	-		-		-		-	-	7.550	7.550
Technical Data	C/CPAF	Leidos : San Diego, CA	0.674	0.065	May 2014	-		-		-		-	-	0.739	0.739
Engineering Services	C/CPAF	Leidos : San Diego, CA	2.372	0.229	May 2014	-		-		-		-	-	2.601	2.601
Accreditation & Certification	C/CPAF	Leidos : San Diego, CA	1.075	0.312	May 2014	-		-		-		-	-	1.387	1.387
<b>Subtotal</b>			11.332	1.886		-		-		-		-	-	13.218	13.218

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Threat Reduction Agency** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities	<b>Project (Number/Name)</b> RL / Nuclear & Radiological Effects
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	C/CPAF	Leidos : San Diego, CA	2.410	0.574	May 2014	-		-		-		-	-	2.984	2.984
Operational Test & Evaluation	C/FFPLOE	Leidos : San Diego, CA	2.023	0.398	May 2014	-		-		-		-	-	2.421	2.421
<b>Subtotal</b>			4.433	0.972		-		-		-		-	-	5.405	5.405

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management	C/Various	TASC, Inc. : Lorton, VA	2.662	0.727	Apr 2014	-		-		-		-	-	3.389	3.389
Travel	C/Various	Various : Various	1.580	0.038	Dec 2013	-		-		-		-	-	1.618	1.618
Overhead	C/Various	Various : Various	2.803	-		-		-		-		-	-	2.803	2.803
<b>Subtotal</b>			7.045	0.765		-		-		-		-	-	7.810	7.810

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	58.555	5.644	-	-	-	-	-	64.199	64.199

**Remarks**  
 All prior year costs and activities for Integrated Weapons of Mass Destruction Toolset (IWMDT), Nuclear Capability Server (NuCS), and Consequence of Execution (COE) were assigned under Project BD of PE 0602716BR. 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 will be openly competed under one of the new DTRA Indefinite Delivery/Indefinite Quantity contracts for approximately \$2.500M for FY 2014.

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Integrated Weapons of Mass Destruction Toolset (IWMDT)</i></b>	
IWMDT-System Development, Test, and Integration-Phase III	██████████

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Integrated Weapons of Mass Destruction Toolset (IWMDT)</i></b>				
IWMDT-System Development, Test, and Integration-Phase III	1	2014	3	2014



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6:</i> <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	19.306	9.700	-	-	-	-	-	-	-	-	Continuing	Continuing
RA: <i>Information Sciences and Applications</i>	19.306	9.700	-	-	-	-	-	-	-	-	Continuing	Continuing

**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**

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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	-	-	-	-
Current President's Budget	9.700	-	-	-	-
Total Adjustments	9.700	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	9.700	-			

**Change Summary Explanation**

Funding for the SBIR Program is consolidated in this program element during the year of execution.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RA: <i>Information Sciences and Applications</i>	19.306	9.700	-	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> RA: Information Sciences and Applications	9.700	-	-
<b>Description:</b> This project provides the means for stimulating technological innovation in the private sector, strengthens the role of small business in meeting the DoD research and development needs; fosters and encourages participation of minority and disadvantaged businesses in technological innovation; and increases the commercial application of the DoD supported research and development results. These efforts are responsive to Public Law 106-554.			
<b>FY 2014 Accomplishments:</b> Phase I contract awards from qualified proposals and availability of funds: - SBIR 13.3 Solicitation: Four Phase I contracts were awarded.  Phase II awards resulting from Phase I efforts and availability of funds: - SBIR 12.2 Solicitation: Seven Phase II effort are in process to award.  - STTR – Program established at DTRA/SCC-WMD in FY 2014.			
<b>Accomplishments/Planned Programs Subtotals</b>	9.700	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502BR / <i>Small Business Innovation Research</i>	<b>Project (Number/Name)</b> RA / <i>Information Sciences and Applications</i>
--	--	---

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 21/0602718BR: <i>WMD Defeat Technologies</i>	21.879	28.785	29.949	-	29.949	32.901	32.365	32.780	33.433	Continuing	Continuing
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	0.107	-	12.244	-	12.244	11.501	11.397	12.839	13.085	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**The Joint Staff**

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

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

20 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	125,016	150,372		150,372	84,796		84,796
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

20 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Advanced Technology Development	12,067						
Advanced Component Development And Prototypes	41,908	67,104		67,104	25,200		25,200
Management Support	53,430	65,049		65,049	53,557		53,557
Operational System Development	17,611	18,219		18,219	6,039		6,039
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796
Summary Recap of FYDP Programs							
General Purpose Forces	8,429	12,163		12,163	10,734		10,734
Intelligence and Communications	8,348	11,552		11,552	10,413		10,413
Research and Development	105,313	122,248		122,248	60,671		60,671
Administration and Associated Activities	2,926	4,409		4,409	2,978		2,978
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
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 (Dollars in Thousands)

20 Jan 2015

Summary Recap of Budget Activities -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Advanced Technology Development	12,067						
Advanced Component Development And Prototypes	41,908	67,104		67,104	25,200		25,200
Management Support	53,430	65,049		65,049	53,557		53,557
Operational System Development	17,611	18,219		18,219	6,039		6,039
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796
 Summary Recap of FYDP Programs -----							
General Purpose Forces	8,429	12,163		12,163	10,734		10,734
Intelligence and Communications	8,348	11,552		11,552	10,413		10,413
Research and Development	105,313	122,248		122,248	60,671		60,671
Administration and Associated Activities	2,926	4,409		4,409	2,978		2,978
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796

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Defense-Wide  
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 Total Obligational Authority  
 (Dollars in Thousands)

20 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
The Joint Staff	125,016	150,372		150,372	84,796		84,796
Total Research, Development, Test & Evaluation	125,016	150,372		150,372	84,796		84,796

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20 Jan 2015

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

Program Line Element No Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	S e c
64 0603828J	Joint Experimentation	03	12,067							U
	Advanced Technology Development		12,067							
99 0604445J	Wide Area Surveillance	04	25,955	53,000		53,000				U
102 0604787J	Joint Systems Integration	04	5,714	7,002		7,002				U
103 0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	3,834				25,200		25,200	U
104 0604828J	Joint FIRES Integration and Interoperability Team	04	6,405	7,102		7,102				U
	Advanced Component Development And Prototypes		41,908	67,104		67,104	25,200		25,200	
141 0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	37,314	43,176		43,176	35,471		35,471	U
155 0605502J	Small Business Innovative Research	06	2,177							U
166 0204571J	Joint Staff Analytical Support	06	5,591	10,321		10,321	7,673		7,673	U
169 0303166J	Support to Information Operations (IO) Capabilities	06	8,348	11,552		11,552	10,413		10,413	U
	Management Support		53,430	65,049		65,049	53,557		53,557	
185 0607828J	Joint Integration and Interoperability	07	11,847	11,968		11,968				U
186 0208043J	Planning and Decision Aid System (PDAS)	07	2,838	1,842		1,842	3,061		3,061	U
236 0902298J	Management HQ - OJCS	07	2,926	4,409		4,409	2,978		2,978	U
	Operational System Development		17,611	18,219		18,219	6,039		6,039	
Total Research, Development, Test & Eval, DW			125,016	150,372		150,372	84,796		84,796	

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 FY 2016 President's Budget  
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 Total Obligational Authority  
 (Dollars in Thousands)

20 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
64	0603828J	Joint Experimentation	03	12,067							U
		Advanced Technology Development		12,067							
99	0604445J	Wide Area Surveillance	04	25,955	53,000		53,000				U
102	0604787J	Joint Systems Integration	04	5,714	7,002		7,002				U
103	0604826J	Joint C5 Capability Development, Integration and interoperability Assessments	04	3,834				25,200		25,200	U
104	0604828J	Joint FIRES Integration and Interoperability Team	04	6,405	7,102		7,102				U
		Advanced Component Development And Prototypes		41,908	67,104		67,104	25,200		25,200	
141	0605126J	Joint Integrated Air and Missile Defense Organization (JIAMDO)	06	37,314	43,176		43,176	35,471		35,471	U
155	0605502J	Small Business Innovative Research	06	2,177							U
166	0204571J	Joint Staff Analytical Support	06	5,591	10,321		10,321	7,673		7,673	U
169	0303166J	Support to Information Operations (IO) Capabilities	06	8,348	11,552		11,552	10,413		10,413	U
		Management Support		53,430	65,049		65,049	53,557		53,557	
185	0607828J	Joint Integration and Interoperability	07	11,847	11,968		11,968				U
186	0208043J	Planning and Decision Aid System (PDAS)	07	2,838	1,842		1,842	3,061		3,061	U
236	0902298J	Management HQ - OJCS	07	2,926	4,409		4,409	2,978		2,978	U
		Operational System Development		17,611	18,219		18,219	6,039		6,039	
Total The Joint Staff				125,016	150,372		150,372	84,796		84,796	

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***Budget Activity 06: RDT&E Management Support  
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141	06	0605126J	Joint Integrated Air & Missile Defense Organization (JIAMDO).....	Volume 5 - 711
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169	06	0303166J	Support to Information Operations Capability.....	Volume 5 - 737

***Budget Activity 07: Operational Systems Development  
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<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
185	07	0607828J	Joint Integration & Interoperability.....	Volume 5 - 741
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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I</i> BA 3: <i>Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603828J <i>I Joint Experimentation</i>
---	--

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	15.841	12.067	-	-	-	-	-	-	-	-	-	27.908
P01: <i>Joint Experimentation</i>	15.841	12.067	-	-	-	-	-	-	-	-	-	27.908

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

As of FY2015, the Joint Experimentation effort has transitioned to Joint Staff Analytical Support, PE 0204571J, BA6.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	12.067	-	-	-	-
Current President's Budget	12.067	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

In FY2013, the Chairman, Joint Chiefs of Staff directed the transformation of the Joint Experimentation program to an assessment focus. The Joint Staff no longer supports experimentation functions originally outlined in the Joint Experimentation R-2. While JS J7 divested this piece, other portions such as concept development and wargaming were retained. The shift in focus aligns more closely with those functions under BA6 RDT&E Management Support. As a result, this line was zeroed out and the remaining requirement was realigned to Joint Staff Analytical Support, PE 0204571J, BA6.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604445J / <i>Wide Area Surveillance</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	25.955	53.000	-	-	-	-	-	-	-	-	78.955
P001: <i>Wide Area Surveillance</i>	0.000	25.955	53.000	-	-	-	-	-	-	-	-	78.955
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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	30.000	53.000	-	-	-
Current President's Budget	25.955	53.000	-	-	-
Total Adjustments	-4.045	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-4.045	-	-	-	-

**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 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	3.230	3.834	7.002	-	-	-	-	-	-	-	-	14.066
<i>P787: Joint Systems Integration</i>	3.230	3.834	7.002	-	-	-	-	-	-	-	-	14.066
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 FY 2016, this legacy USJFCOM PE will be consolidated along with PE 0604828J (JFIIT) and PE 0607828J (JII) into a single new Joint Staff PE 0604826J – Joint Command, Control, Communications, Computers, and Cyber Integration (JC5I).

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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J I <i>Joint Systems Integration</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	7.402	7.002	6.839	-	6.839
Current President's Budget	3.834	7.002	-	-	-
Total Adjustments	-3.568	-	-6.839	-	-6.839
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-3.568	-	-	-	-
• PE Consolidation	-	-	-6.839	-	-6.839

**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.

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> Joint Systems Integration</p> <p><b>FY 2014 Accomplishments:</b> Interoperability Assessments(IA) and Interoperability Technology Demonstration Center (ITDC)</p> <p>Continued the efforts initiated for FY 2013 and responded to identified operational issues and shortfalls. Interoperability assessments were conducted to solve warfighter problems, including coalition challenges. FY 2014 assessment objectives focused on; Cyberspace, Mission Partner Environment, Common Operational Picture, Wireless to the Tactical Edge, Joint Fires Capabilities, Data Strategy Implementation, and Information Sharing Capabilities.</p> <p>Afghanistan Mission Network (AMN) Coalition Interoperability Assurance Validation (CIAV) Transition and Assessments – AMN is the primary Coalition, Command, Control and Communications and Computers, Intelligence, Surveillance, and Reconnaissance (C5ISR) network for International Assistance Forces (ISAF) in Afghanistan. C4AD is supporting the assessment of Coalition Mission Threads (CMTs) and Coalition Tactics, Techniques and Procedures (CTTPs) to identify and correct interoperability problems.</p>	3.834	7.002	-



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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J / <i>Joint Systems Integration</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p>Bold Quest 2014 (BQ14) Technical Support and Interoperability Assessments – Assessed interoperability and documented identified deficiencies of select systems within the joint fires mission thread during BQ14-1 and BQ 14-2 operational venues.</p> <p>Coalition Interoperability Assessments – Conducted interoperability assessments between selected systems during the Coalition Warrior Interoperability Exploration, Experimentation, Examination Exercise (CWIX) 2014 event.</p> <p>Global Command and Control-Joint (GCCS-J) v4.2.0.9 and Radiant Mercury (RM) Risk Mitigation Interoperability Assessment – Assessed interoperability of GCCS-J and RM.</p> <p>Mission Partner Environment (MPE) Federated Mission Networking (FMN) Interoperability Assessments – Provided interoperability assessments of selected U.S. and Coalition systems.</p> <p>Mission Partner Environment (MPE) Federated Mission Networking (FMN) Joining, Membership and Exit Instructions (JMEI) Assessments – Assessed FMN’s JMEI developed for Combined Endeavor 2014.</p> <p>Tactical Infrastructure Enterprise Services (TIES) Coalition Warfare Program (CWP) Interoperability Assessment – Assessing the capability of sharing data from authoritative data sources using web services in a C2 Core conformant, standardized data format.</p> <p>Tactical Infrastructure Enterprise Services (TIES) Joint Capability Technical Demonstration (JCTD) Interoperability Assessment - Assessing the capability of sharing data from authoritative data sources using web services in a C2 Core conformant, standardized data format.</p> <p>Joint Fire Support (JFS) Joint Mission Thread (JMT) Interoperability Assessment – Assessed JFS system of systems interoperability across user, decision maker, and Service boundaries.</p> <p>Ground to Air Situational Awareness (C2A SA) Operational Assessment Support – Assessed interoperability between U.S./ Coalition servers and participating aircraft.</p> <p>Network Integration Evaluation (NIE) Mission Partner Environment (MPE) Analysis Support – Observed current joint and coalition information sharing shortfalls and recommended options for implementing an MPE in future MPE events.</p> <p>Joint Command and Control (JC2) Common User Interface (CUI) / Enterprise Storefront (ES) Capability Assessment – Assessing JC2 CUI/ES capability in an operational context to support decision-making, planning, and situational awareness.</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Mission Partner Environment Shared Situational Awareness Study Support (MPE SSA) to NORAD-USNORTHCOM – Assessed how a MPE would function in a Defense Support of Civil Authorities (DSCA) environment.</p> <p>Automated NATO Database Interface (ANDI) Interoperability Assessment – Assessing the automated exchange of targeting data between the U.S. Modernized Integrated Database (MIDB) and the NATO Integrated Command and Control Database (ICCDB).</p> <p>Results: 19 assessment projects completed to resolve coalition and warfighter challenges. Assessments produced 307 findings, 69 conclusions, and 55 recommendations (32 confirmed accepted/implemented to date)</p> <p>Technical Assessments and Integration (TA&amp;I) Continued FY 2013 initiatives investigating impacts of technology advances in wireless devices, mesh and ad-hoc networking, satellite modem technology, and small lightweight secure digital capabilities on warfighter command and control capabilities and match emerging critical warfighter requirements with the technologies to identify near-term technology solutions supporting Combatant Commanders. Areas of concentration included Wireless to the Tactical Edge Integration, Cyberspace, and Common Operational Picture.</p> <p>Joint Operational Long Term Evolution Deployable (JOLTED) Tactical Cellular System (TACTICS) Joint Capability Technical Demonstration (JCTD) - Technical Manager – JOLTED TACTICS is an Internet Protocol (IP) based system designed to provide robust 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.</p> <p>C2 Applications over Broadband Cellular (C2 ABC) Integration and Assessment – Integrating and assessing emerging C2 and tailored applications using broadband cellular technologies to provide the warfighter at the tactical edge with expanded situational awareness.</p> <p>Celestial Reach Joint Capability Technical Demonstration (JCTD) Assessment – Assessed a wide-band antenna solution for joint air, ground, and maritime operations and the capability’s utility in providing wide-band communications that support Command and Control (C2) and Intelligence Surveillance and Reconnaissance (ISR) applications to enroute users.</p> <p>National Security Agency (NSA) Commercial Solutions for Classified (CSfC) Secure Wireless Local Area Network (SWLAN) Integration Assessment – Assisting the National Security Agency in the development and assessment of a Suite B software encryption solution. This capability supports communicating over SECRET wireless networks without using Type-1 hardware solutions (e.g., SecNet 54, Talon, or KG-250s).</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Tactical Mobility Security Integration and Assessment (TMSIA) Spiral II –In partnership with the National Security Agency integrating a security architecture for lightweight, man-portable communications-on-demand packages that allow the user to quickly establish secure 4G cellular wireless networks.</p> <p>Results: 6 integration projects completed or in work. 2 technical assessments of soon to be fielded capabilities revealed: 47 findings, 2 conclusions, and 9 recommendations. Technical integration efforts including JCTD support include 3 Defense Information Assurance Security Accreditation Working Group (DSAWG) presentations, 2 technical demonstrations, 2 technical integration tests, 13 developmental tests, 1 technical readiness test, and 1 certification test and evaluation.</p> <p>Persistent Command and Control Environment Continued FY 2013 initiatives by engaging the Services and Communities of Interest (COI) to leverage the capabilities of the Persistent Command and Control Environment by bringing joint solutions through C4AD's integration and operational assessment process. Provide a comprehensive Joint Task Force (JTF) environment required to also support cyber training, cyber capability development, and cyber assessment by expanding the connectivity and capability of the existing persistent environment to support the Enterprise Cyber Range Environment (ECRE) focused on user requirements, architectures, standards, measures, metrics, instrumentation, and data collection requirements.</p> <p>C4AD Project Engineering Support – Provided infrastructure, communications, network, information assurance, security, and engineering support as required.</p> <p>Cyber Assessment Event Number 1- Provided a representative Joint Task Force (JTF) Headquarters node within the Enterprise Cyber Range Environment (ECRE) to assess C2 system vulnerabilities to red team exploitation and improve blue team responses.</p> <p>Cyber Assessment Event Numbers 2-3 - Provided a representative Joint Task Force (JTF) Headquarters node within the Enterprise Cyber Range Environment (ECRE) to assess C2 system vulnerabilities to red team exploitation and improve blue team responses.</p> <p>CYBERCOM Project C; White Cell Facility and Training Support – Provided selected systems to assess system vulnerabilities to red team exploitation.</p> <p>DoD Information Assurance (IA) Range C2 Systems Support – Provided selected systems to assess system vulnerabilities to red team exploitation.</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Navy Cyber Defense Operations Command Facility Support – Provided selected systems to assess system vulnerabilities to red team exploitation.</p> <p>Coalition Validation and Verification Environment (C2VE) – Establishing a persistent operational/technical assessment capability in support of Combatant Command and Coalition interoperability requirements.</p> <p>Results: Upkeep, maintenance, and currency of the persistent environment that includes: 27 internal local area networks (Unclas, Secret, TS/SCI, and Coalition), 9 operational, 6 research and development and 3 test and assessment wide area networks, 22 U.S. C2 Systems, 5 Coalition C2, 4 C2 Services, 24 Core Admin Services, 6 Cross Domain Baseline Services, 5 Cyber Environment C2Systems, 6 IA/Cyber Security Guard Services, 11 IA/Cyber Security Services, 30 Instrumentation Tools, and 30 Servers.</p> <p><b>FY 2015 Plans:</b> Interoperability Assessments(IA) and Interoperability Technology Demonstration Center (ITDC)</p> <p>Continue the efforts initiated for FY 2014 and respond to unpredictable operational issues and shortfalls. Interoperability assessments will be conducted to solve warfighter problems, including coalition challenges. FY 2015 assessment objectives remain focused on; Cyberspace, Mission Partner Environment, Common Operational Picture, Wireless to the Tactical Edge, Joint Fires Capabilities, Data Strategy Implementation, and Information Sharing Capabilities.</p> <p>Bold Quest (BQ) 2015 Support – Design, accredit, install, operated and maintain the BQ15 exercise network.</p> <p>C2 Common Operating Picture (COP) Support and Assessment to CYBERFLAG (CF) 2015-1 – Provide C2 systems, a common operational picture, and assessment of cyber attacks on Global Command and Control System – Joint (GCCS-J).</p> <p>Automated NATO Database Interface (ANDI) Interoperability Assessment – Continue assessing the automated exchange of targeting data between the U.S. Modernized Integrated Database (MIDB) and the NATO Integrated Command and Control Database (ICCDB).</p> <p>Tactical Infrastructure Enterprise Services (TIES) Coalition Warfare Program (CWP) Interoperability Assessment – Assessing the capability of sharing data from authoritative data sources using web services in a C2 Core conformant, standardized data format.</p>				

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Tactical Infrastructure Enterprise Services (TIES) Joint Capability Technical Demonstration (JCTD) Interoperability Assessment - Assessing the capability of sharing data from authoritative data sources using web services in a C2 Core conformant, standardized data format.</p> <p>Joint Fire Support (JFS) Joint Mission Thread (JMT) Interoperability Assessment – Continue assessing JFS system of systems interoperability across user, decision maker, and Service boundaries.</p> <p>Mission Partner Environment (MPE) Federated Mission Networking (FMN) Joining, Membership and Exit Instructions (JMEI) Assessments – Continue assessing developing JMEIs to implement MPE in an operational venue.</p> <p>Coalition Warrior Interoperability Exploration, Experimentation, Examination Exercise Interoperability Assessments – Conduct interoperability assessments between selected systems during CWIX 2015 event.</p> <p>Mission Partner Environment (MPE) Federated Mission Networking (FMN) Coalition Interoperability Assurance and Validation (CIAV) Assessments – Continue interoperability assessment of coalition systems supporting coalition mission threads in a coalition/joint environment.</p> <p>Operation Resolute Support Coalition Interoperability Assurance and Validation (CIAV) Post International Assistance Force Afghanistan – Support further identification, assessment and resolution of coalition interoperability and integration problems affecting mission threads.</p> <p>Joint Cross Domain eXchange (JCDX) Interoperability Assessment – Assess that JCDX version xx is interoperable with Global Command and Control System – Joint (GCCS-J) version xx.</p> <p>Mission Partner Environment (MPE) Network Integration Evaluation (NIE) 15 Analysis Support – Provide analysis that the Army’s future network is interoperable with Joint, Multinational and Interagency network capabilities.</p> <p>Joint Command and Control (JC2) Common User Interface (CUI) / Enterprise Storefront (ES) Capability Assessment – Continue assessing JC2 CUI/ES capability in an operational context to support decision-making, planning, and situational awareness.</p> <p>Friendly Force Tracking (FFT) Assessment Support – Assess U.S. and Allied ground to air situational awareness systems and capabilities.</p>				

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Joint Information Environment (JIE) Service Compliance Assessment – Support the assessment of the Services compliance with implementing the JIE.</p> <p>Technical Assessments and Integration (TA&amp;I) Continue FY 2014 initiatives investigating impacts of technology advances in wireless devices, mesh and ad-hoc networking, satellite modem technology, and small lightweight secure digital capabilities on warfighter command and control capabilities and match emerging critical warfighter requirements with the technologies to identify near-term technology solutions supporting Combatant Commanders. Areas of concentration include Wireless to the Tactical Edge Integration and Common Operational Picture.</p> <p>Joint Operational Long Term Evolution Deployable (JOLTED) Tactical Cellular System (TACTICS) Joint Capability Technical Demonstration (JCTD) - Technical Manager – JOLTED TACTICS is an Internet Protocol (IP) based system designed to provide robust 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.</p> <p>C2 Applications over Broadband Cellular (C2 ABC) Integration and Assessment – Integrating and assessing emerging C2 and tailored applications using broadband cellular technologies to provide the warfighter at the tactical edge with expanded situational awareness.</p> <p>National Security Agency (NSA) Commercial Solutions for Classified (CSfC) Secure Wireless Local Area Network (SWLAN) Integration Assessment – Assisting the National Security Agency in the development and assessment of a Suite B software encryption solution. This capability supports communicating over SECRET wireless networks without using Type-1 hardware solutions (e.g., SecNet 54, Talon, or KG-250s).</p> <p>Tactical Mobility Security Integration and Assessment (TMSIA) Spiral II – In partnership with the National Security Agency integrating a security architecture for lightweight, man-portable communications-on-demand packages that allow the user to quickly establish secure 4G cellular wireless networks.</p> <p>Broad Band Cellular Integration (B2CI) – Provide integration support for broad band cellular or other 4G based capabilities. Persistent Command and Control Environment</p>				

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Continue FY 2014 initiatives by engaging the Services and Communities of Interest (COI) to leverage the capabilities of the Persistent Command and Control Environment by bringing joint solutions through C4AD's integration and operational assessment process. Provide a comprehensive Joint Task Force (JTF) environment required to also support cyber training, cyber capability development, and cyber assessment by expanding the connectivity and capability of the existing persistent environment to support the Enterprise Cyber Range Environment (ECRE) focused on user requirements, architectures, standards, measures, metrics, instrumentation, and data collection requirements.			
C4AD Project Engineering Support – Provide infrastructure, communications, network, information assurance, security, and engineering support as required.			
Navy Cyber Defense Operations Command Facility Support – Provide selected systems to assess system vulnerabilities to red team exploitation.			
C2 Support to the Cyber Persistent Test and Training Environment (PTTE) – Provide selected systems to assess system vulnerabilities to red team exploitation.			
Cyber Assessment Event Number 3 - Provide a representative Joint Task Force (JTF) Headquarters node within the Enterprise Cyber Range Environment (ECRE) to assess C2 system vulnerabilities to red team exploitation and improve blue team responses.			
Cyber Assessment Event Number 4 and 5 - Provide a representative Joint Task Force (JTF) Headquarters node within the Enterprise Cyber Range Environment (ECRE) to assess C2 system vulnerabilities to red team exploitation and improve blue team responses.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.834	7.002	-

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

N/A

**Remarks**

**E. Acquisition Strategy**

N/A

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604787J <i>I Joint Systems Integration</i>
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**F. Performance Metrics**  
N/A: Consolidating to new PE in FY2016 - reference PE0604826J



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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 4	PE 0604787J / <i>Joint Systems Integration</i>	P787 / <i>Joint Systems Integration</i>

**Remarks**

N/A: Consolidating to new PE in FY2016 - reference PE0604826J

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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604787J / <i>Joint Systems Integration</i>	<b>Project (Number/Name)</b> P787 / <i>Joint Systems Integration</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Consolidation</b>	
Consolidating to new PE in FY2016 - reference PE0604826J	■

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604787J / <i>Joint Systems Integration</i>	<b>Project (Number/Name)</b> P787 / <i>Joint Systems Integration</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Consolidation</b>				
Consolidating to new PE in FY2016 - reference PE0604826J	1	2016	1	2016

**Note**

N/A: Consolidating to new PE in FY2016 - reference PE0604826J

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604826J <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	-	25.200	-	25.200	23.483	22.419	24.089	24.089	Continuing	Continuing
001: <i>C5 Assessments and Analyses</i>	0.000	-	-	13.696	-	13.696	13.940	14.195	14.190	14.190	Continuing	Continuing
002: <i>C5 Capability Development</i>	0.000	-	-	7.079	-	7.079	5.118	3.801	5.483	5.483	Continuing	Continuing
003: <i>Joint Fires C2 Interoperability</i>	0.000	-	-	4.425	-	4.425	4.425	4.423	4.416	4.416	Continuing	Continuing

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

Lead command, control, communications, computers, and cyber (C5) assessments, analyses, capability development, and Joint Fires 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 is a new PE for FY2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY2013 after JFCOM disestablishment. The following PEs will no longer be 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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	25.200	-	25.200
Total Adjustments	-	-	25.200	-	25.200
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Legacy Program Element Consolidation	-	-	25.200	-	25.200

**Change Summary Explanation**

This is a new Program Element (PE) for FY2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY2013 as a result of the JFCOM disestablishment. The following PEs will no longer be used after FY2015: 0604828J - Joint FIRES Integration and Interoperability Team (JFII), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>					<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>		
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
001: <i>C5 Assessments and Analyses</i>	-	-	-	13.696	-	13.696	13.940	14.195	14.190	14.190	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Conduct assessments and analyses of existing and emerging command, control (C2), communications, computers, and cyber (C5) capabilities, in both a persistent environment and in the field, producing and utilizing decision-quality information to achieve joint and combined interoperable and integrated solutions. The Joint Staff possesses the unique laboratory facilities and deployable skill sets within DOD to lead these efforts for the Department.

This is a new Program Element (PE) for FY2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY2013 as a result of the JFCOM disestablishment. The following PEs will no longer be used after FY2015: 0604828J - Joint FIRES Integration and Interoperability Team (JFII), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> C5 Assessments and Analyses	-	-	13.696
<b>FY 2016 Plans:</b> 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 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	13.696

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

<p><b>C. Other Program Funding Summary (\$ in Millions)</b> N/A</p> <p><b>Remarks</b></p> <p><b>D. Acquisition Strategy</b> N/A</p> <p><b>E. Performance Metrics</b></p> <p>(1) Conduct at least fifteen (15) interoperability assessments per year designed to identify Joint and Coalition interoperability issues and recommend fixes/solutions to Program Managers, Combatant Commands, Services, and Agencies.</p> <p>(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.</p> <p>(3) Provide C2 Systems and Persistent command, control, communications, and computers (C4) Environment supporting at least two (2) Combatant Command Exercises per year to satisfy Combatant Command training objectives, including the cyber threat to mission systems.</p> <p>(4) Provide C2 Systems and Persistent C4 Environment supporting at least four (4) individual/team training events per year to meet training and certification objectives.</p> <p>(5) Provide C2 Systems and Persistent C4 Environment to support at least two (2) Cyber Assessments per year supporting Cyber capability development.</p> <p>(6) Integrate at least two (2) new capabilities per year supporting Combatant Command, Service, Agency, and Commercial Solutions for Classified and Mobile Computing program requirements.</p> <p>(7) Maintain a Persistent C4 Environment capability on a daily basis to replicate systems typically found in a Joint Task Force.</p> <p>(8) Ensure 100% of all government employee travel is in accordance with the Joint Federal Travel Regulation/Joint Travel Regulation.</p> <p>(9) Complete events within schedule and budget. Provide and track status of recommendations.</p>
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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 The Joint Staff</b>											<b>Date:</b> February 2015				
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments					<b>Project (Number/Name)</b> 001 / C5 Assessments and Analyses						

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Contract Management and Engineering Technical Services	C/CPFF	Various : Norfolk, Suffolk, Eglin	-	-		-		9.332	Mar 2016	-		9.332	-	-	-
Engineering and Technical Services (Support from DoD Activities)	MIPR	Various : DoD Activities	-	-		-		1.542	Mar 2016	-		1.542	-	-	-
Maintenance	C/CPFF	Various : Various	-	-		-		2.455	Mar 2016	-		2.455	-	-	-
Travel	TBD	Various : Various	-	-		-		0.367		-		0.367	-	-	-
<b>Subtotal</b>			-	-		-		13.696		-		13.696	-	-	-
<b>Project Cost Totals</b>			-	-		-		13.696		-		13.696	-	-	-

**Remarks**



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 The Joint Staff</b>		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>TBD</i>																												
To be developed.																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 001 / <i>C5 Assessments and Analyses</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>TBD</i>				
To be developed.	1	2016	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>				<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
002: <i>C5 Capability Development</i>	-	-	-	7.079	-	7.079	5.118	3.801	5.483	5.483	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Lead the development and validation of command, control, communications, computers, and cyber (C5) capability requirements to achieve an effective and agile Joint Force in support of joint and combined operations. Efforts include C5 capability requirements determination, prioritization, and integration, as well as C5I data standards development, architectures integration, and technical specifications development, documentation, and enforcement.

This is a new Program Element (PE) for FY2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY2013 as a result of the JFCOM disestablishment. The following PEs will no longer be used after FY2015: 0604828J - Joint FIRES Integration and Interoperability Team (JFII), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> C5 Capability Development	-	-	7.079
<b>FY 2016 Plans:</b> 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	7.079

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b>		
<p>(1) Develop and deliver detailed FY2016 Joint command and control (C2) requirements via a minimum of six JCIDS-validated documents, to include: Capability Definition Packages and Capability Packages, articulating capability needs and supporting architectures and data needs in the mission areas of situational awareness/ common operational picture, force employment, planning and execution, security cooperation, cyber C2, and cross-functional capabilities for subsequent action by materiel developers and acquisition community.</p> <p>(2) Identify and develop FY2016 Joint C2 operational priorities, mapped to validated Joint C2 requirements, in order to obtain required Joint Requirements Oversight Council (JROC) Memorandum approvals for inclusion into DOD's Joint C2 FY2016 Sustainment and Modernization Plan.</p> <p>(3) Conduct Quarterly Configuration Control Board sessions to improve and increase information sharing via promulgation of one Domain content update.</p> <p>(4) As U.S. lead representative, improve and increase the level of mission partner interoperability and information sharing by leading two NATO Data Management Syndicate sessions.</p> <p>(5) On behalf of the DOD CIO, lead a minimum of six Enterprise Service and Data Panels (ESDP) with the goal to improve and increase the suitability and reusability of DOD Enterprise Services and Authoritative Data Sources.</p> <p>(6) Improve and increase the number of integrated architectures developed and analyzed for the WMA to include mission threads, joint command and control requirements, warfighting C2 capabilities, and mission partners, and ensure they are suitable to inform decision-makers and fully support warfighter capability development.</p> <p>(7) Improve and increase the number of federated Combatant Command, Service, and DOD Agency architecture products, to enable timely access and enable reusability by users to support capability acquisition, requirements generation, development and testing.</p> <p>(8) Validate up to 1500 JIE architecture documents to increase compliance with JIE architecture standards, metrics, and engineering design specifications across DOD.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>
<p>(9) Conduct 250 JCIDS and Information Support Plan (ISP) reviews during FY2016, with the goal to increase and improve Joint Requirements Oversight Council (JROC) validation process support.</p> <p>(10) Provide C4/Cyber Functional Capabilities Board Action Officer support for a minimum of seven programs of record during FY2016, with the goal to increase and improve JROC validation process support.</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C5 Capability Development - Contracts	C/FP	Various : Various	-	-		-		6.369		-		6.369	-	-	-
C5 Capability Development - MIPRs	MIPR	Various : Various	-	-		-		0.500		-		0.500	-	-	-
C5 Capability Development - Travel	TBD	Various : Various	-	-		-		0.200		-		0.200	-	-	-
Maintenance	C/CPFF	Various : Various	-	-		-		0.010		-		0.010	-	-	-
<b>Subtotal</b>			-	-		-		7.079		-		7.079	-	-	-
<b>Project Cost Totals</b>			-	-		-		7.079		-		7.079	-	-	-

**Remarks**  
 This is a new Program Element (PE) for FY2016 and consolidates legacy U. S. Joint Forces Command (JFCOM) PEs that transitioned to the Joint Staff in FY2013 as a result of the JFCOM disestablishment. The following PEs will no longer be used after FY2015: 0604828J - Joint FIRES Integration and Interoperability Team (JFII), 0604787J - Joint Systems Integration Command (JSI), and 0607828J - Joint Integration and Interoperability (JII).

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

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

***C5 Capability Development***

C5 Capability Development																												
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 002 / <i>C5 Capability Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>C5 Capability Development</b>				
C5 Capability Development	1	2016	4	2016

**Note**

To be developed.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / Joint C5 Capability Development, Integration, and Interoperability Assessments	<b>Project (Number/Name)</b> 003 / Joint Fires C2 Interoperability
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
003: Joint Fires C2 Interoperability	-	-	-	4.425	-	4.425	4.425	4.423	4.416	4.416	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Lead DoD's joint and combined mission areas of Joint Fires (JF), Joint Close Air Support (JCAS), Friendly Force Tracking (FFT), and Combat Identification (CID), interfacing directly with North Atlantic Treaty Organization (NATO) and coalition partners to resolve policy issues, and develop capability improvements for the joint warfighter to maximize combat effectiveness, and minimize fratricide and collateral damage.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Joint Fires C2 Interoperability	-	-	4.425
<b>FY 2016 Plans:</b> 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 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	4.425

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

**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 completion for Mode 5 Initial Operating Capability (IOC) from FY2014-2018. Monitor Service fielding progress of one hundred sixty-nine 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 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 partner nations.

(5) Conduct Accreditation Assessments for fourteen 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 U.S. and NATO joint fires-related doctrine and Tactics, Techniques, and Procedures (TTP) publications.

(7) Lead planning, coordination and execution of two Bold Quest 2016 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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Joint Fires C2 Interoperability - Contracts	C/FP	Various : Various	-	-		-		2.160		-		2.160	-	-	-
Joint Fires C2 Interoperability - MIPRs	MIPR	Various : Various	-	-		-		1.765		-		1.765	-	-	-
Joint Fires C2 Interoperability - Travel	TBD	Various : Various	-	-		-		0.500		-		0.500	-	-	-
<b>Subtotal</b>			-	-		-		4.425		-		4.425	-	-	-

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	-	-	-	4.425	-	4.425	-	-	-

Remarks

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 The Joint Staff</b>		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

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

<b><i>Joint Fires C2 Interoperability</i></b>																												
Joint Fires C2 Interoperability																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604826J / <i>Joint C5 Capability Development, Integration, and Interoperability Assessments</i>	<b>Project (Number/Name)</b> 003 / <i>Joint Fires C2 Interoperability</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Fires C2 Interoperability</i></b>				
Joint Fires C2 Interoperability	1	2016	4	2016

**Note**  
To be developed.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604828J <i>I Joint FIRES Integration and Interoperability Team</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	6.541	6.405	7.102	-	-	-	-	-	-	-	-	20.048
P857: <i>Joint Deployable Analysis Team (JDAT)</i>	6.541	6.405	7.102	-	-	-	-	-	-	-	-	20.048
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 legacy USJFCOM PE will be consolidated along with PE 0604787J (JSIC) and PE 0607828J (JII) into a single new Joint Staff PE 0604826J – Joint Command, Control, Communications, Computers, and Cyber Integration (JC5I).

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.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	7.506	7.102	6.963	-	6.963
Current President's Budget	6.405	7.102	-	-	-
Total Adjustments	-1.101	-	-6.963	-	-6.963
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-1.101	-	-	-	-
• PE Consolidation	-	-	-6.963	-	-6.963

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604828J <i>I Joint FIRES Integration and Interoperability Team</i>
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**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 2014	FY 2015	FY 2016
<p><b>Title:</b> Joint Fires Integration &amp; Interoperability Team (JFIIT)</p> <p><b>FY 2014 Accomplishments:</b></p> <p>(1) Provided analytical, technical, and operational support for the planning, coordination, and execution of Bold Quest (BQ) 14-2 and Network Integration Evaluation (NIE) 14 to assess US Services and coalition force integration and interoperability. Benefits included successful integration of simulation with real-time activities and accomplishment of planned event objectives, altogether making the first BQ/NIE a milestone Joint/USA event.</p> <p>(2) Chaired the JFS Executive Coordinated Implementation (CI) Engineering Change Implementation Group (ECIG) for Digitally Aided Close Air Support (DACAS) and ECIG for Digitally Aided Fires Support (DAFS). Conducted and published reports for two DACAS Coordinated Implementation Risk Reduction Events (BQ13-2, BQ14-2) and provided subject matter expertise (SME) for JFS JMT development and demonstrations (BQ14-1, BQ14-2). Overall, these efforts supported the continued development and assessment of Engineering Change Proposals (ECPs) providing the guidelines for coordinated implementation of DACAS and DAFS protocols, ensuring incremental US and partner nation system-of-systems interoperability.</p> <p>(3) Authored Black Dart 2013 Final Report for Joint Staff (JS) J8 Joint Integrated Air and Missile Defense Organization (JIAMDO). Provided analytical, technical, and operational support to Black Dart 2014, a counter-unmanned aircraft systems (C-UAS) and counter-cruise missile (C-CM) demonstration assessing DoD, Inter-Agency, and Industry's C-UAS/C-CM capabilities across the Integrated Air and Missile Defense (IAMD) Joint Engagement Sequence (JES). Data collection at Black Dart 2014 enabled end-of-event After Action Reports (AARs), participant self-assessments, and will serve as the basis for post-event analysis and reporting. Benefits include improvements to surveillance, detection, tracking, identification, and engagement of UAS/CM and will inform future weapon systems acquisition decisions as well as JES tactics, techniques and procedures (TTP) refinement.</p> <p>(4) Provided cyberspace analysis support to the Director of Operational Test &amp; Evaluation's (DOT&amp;E) information assurance assessment for US Northern Command during Exercise Vigilant Shield (VS) 2014. Developed and rehearsed red team actions affecting participating command and control (C2) system operations and supported "C2 effects" integration during VS execution. Accomplished C2 information system data collection and analysis to correlate C2 effects with red team actions. Benefits included training improvements in Combatant Command (CCMD) cyberspace operations and initial analysis of current capabilities to measure/assess the impact of cyberspace attacks on the Global Command and Control System-Joint (GCCS-J). Additionally, conducted the planning and rehearsal of similar support for VS 2015 to be executed in FY15.</p>	6.405	7.102	-



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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>(5) Led the analytical planning, test conduct, data collection and analysis for five DOD Enterprise Cyberspace Range Environment (DECRE) Command and Control (C2) Information Systems (IS) events supporting the development, assessment, and training of command, control, communications, and computers (C4)/cyberspace capabilities. DECRE events provided relevant outcome regarding the vulnerabilities of select CCMD C2 information systems and the associated network architectures with direct implications for current C2/network configurations.</p> <p>(6) Led the initial capabilities assessment for DOT&amp;E's Automated Cyber Threat Identification and Vulnerability Emulation (ACTIVE) to develop and assess a methodology for assessing cyberspace vulnerabilities and the needed Live, Virtual, Constructive (LVC) environment with supporting simulators/stimulators as well as the various analysis tools needed to support the assessment methodology. This program is defining the various requirements to support the integration of cyberspace compliance, vulnerability and interoperability testing into conventional developmental testing. information sharing shortfalls and recommended options for implementing an MPE in future MPE events.</p> <p>(7) Supported Commander, Operational Test and Evaluation Force (COMOPTEVFOR), DOT&amp;E sponsored, interoperability assessment of select US Pacific Command C2 systems during Exercise Valiant Shield 14. JDAT's collection and reduction of qualitative and quantitative data from select airborne and ground based IAMD systems enabled follow-on analysis by COMOPTEVFOR.</p> <p>(8) Completed an independent assessment of a Long-Term Evolution (LTE) wireless capability known as Joint Operational Long Term Evolution Deployable (JOLTED) Tactical Cellular System (TACTICS) for US Special Operations Command. The reported findings, conclusions, and recommendations support improvements to mature this system and critical insights for future testing.</p> <p>(9) Completed an independent assessment of the Personnel Recovery Single Card Solution handheld radio proof-of-concept field-test for the Joint Personnel Recovery Agency, JS J3. Findings and recommendations will contribute to the replacement of legacy personnel recovery systems with next-generation technologies.</p> <p>(10) Assisted COMOPTEVFOR with Identification Friend or Foe (IFF) Mode 5 Level 1 Joint Operational Test Approach analysis to validate the interoperability of fielded combat systems. Served as COMOPTEVFOR's lead analysis organization, responsible for all reconstruction and analysis, coordination of issues with Service program offices, and producing a detail report of results for submission to DOT&amp;E. JDAT analysis and published products were commended by COMOPTEVFOR and DOT&amp;E leadership.</p> <p>(11) Provided the USAF 505th TS/DOY (Tactics and Testing) augmentation support during Red Flag 14-3 (an Air Combat Command sponsored exercise) with mission feedback support to the dynamic targeting training audience.</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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(12) Provided SME for the revision of the NATO Standardization Agreement (STANAG) 3733, the JFIRE Multi-Service Procedures for the Joint Application of Firepower publication, and Joint Terminal Attack Controller (JTAC) Memorandums of Agreement for DoD and partner nations.

(13) Updated JDAT tools to support planned assessments and the efforts of other government agencies in support of Test Resource Management Center.

**FY 2015 Plans:**

(1) Continue providing analytical, technical and operational support to the demonstration and assessment of U.S./Coalition C2 information systems and procedures at JS J6 BQ 15. Provide instrumentation, data collection and management, mission monitoring, and daily feedback to participants. Additionally, perform an assessment of select executed operations (e.g. IAMD, Mode 5 IFF) and publish a report of outcomes. Benefits include improved demonstration of U.S./Coalition C2 information systems and enhanced assessment of participating coalition and U.S. systems and their respective employment procedures. Event outcomes will be advocated by the Executive Steering Committees (ESCs) for Joint Fire Support and Combat Identification.

(2) Provide analytical, technical, and operational support to assess current US C-UAS/C-CM capabilities across the IAMD joint engagement sequence during JS J8 JIAMD Black Dart 2015 demonstration. Provide execution assistance and real-time monitoring, data collection/processing and management, daily feedback to participants and post event analysis; publish a final report of demonstrated capabilities. Benefits include improvements to surveillance, detection, tracking, identification, and engagement of counter-unmanned aircraft systems.

(3) Team with designated Service Operational Test Agencies (OTAs) to conduct DOT&E information assurance (cyberspace) assessments for USEUCOM during Exercise Austere Challenge 2015 and USNORTHCOM in Exercise Vigilant Shield 2016. Provide C2 information system data collection and analysis to correlate with red team actions. Benefits include training improvements in CCMD cyberspace operations and initial analysis of current capabilities to measure/assess the impact of cyberspace attacks select C2 IS.

(4) Team with designated OTAs to conduct DOT&E interoperability assessments for select CCMD Joint Task Force exercises. Provide data collection, analysis, and display using JDAT developed tools. Benefits include improvements in U.S. and Coalition C2 information systems interoperability, processes, and procedures in support of the commander's decision cycle.

(5) Continue providing analytical leadership, data collection and analysis to DECRE C2 IS events supporting the development, assessment, and training of command, control, communications, and computers (C4)/cyberspace capabilities. Benefits include the

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>(12) Provided SME for the revision of the NATO Standardization Agreement (STANAG) 3733, the JFIRE Multi-Service Procedures for the Joint Application of Firepower publication, and Joint Terminal Attack Controller (JTAC) Memorandums of Agreement for DoD and partner nations.</p> <p>(13) Updated JDAT tools to support planned assessments and the efforts of other government agencies in support of Test Resource Management Center.</p> <p><b>FY 2015 Plans:</b></p> <p>(1) Continue providing analytical, technical and operational support to the demonstration and assessment of U.S./Coalition C2 information systems and procedures at JS J6 BQ 15. Provide instrumentation, data collection and management, mission monitoring, and daily feedback to participants. Additionally, perform an assessment of select executed operations (e.g. IAMD, Mode 5 IFF) and publish a report of outcomes. Benefits include improved demonstration of U.S./Coalition C2 information systems and enhanced assessment of participating coalition and U.S. systems and their respective employment procedures. Event outcomes will be advocated by the Executive Steering Committees (ESCs) for Joint Fire Support and Combat Identification.</p> <p>(2) Provide analytical, technical, and operational support to assess current US C-UAS/C-CM capabilities across the IAMD joint engagement sequence during JS J8 JIAMD Black Dart 2015 demonstration. Provide execution assistance and real-time monitoring, data collection/processing and management, daily feedback to participants and post event analysis; publish a final report of demonstrated capabilities. Benefits include improvements to surveillance, detection, tracking, identification, and engagement of counter-unmanned aircraft systems.</p> <p>(3) Team with designated Service Operational Test Agencies (OTAs) to conduct DOT&amp;E information assurance (cyberspace) assessments for USEUCOM during Exercise Austere Challenge 2015 and USNORTHCOM in Exercise Vigilant Shield 2016. Provide C2 information system data collection and analysis to correlate with red team actions. Benefits include training improvements in CCMD cyberspace operations and initial analysis of current capabilities to measure/assess the impact of cyberspace attacks select C2 IS.</p> <p>(4) Team with designated OTAs to conduct DOT&amp;E interoperability assessments for select CCMD Joint Task Force exercises. Provide data collection, analysis, and display using JDAT developed tools. Benefits include improvements in U.S. and Coalition C2 information systems interoperability, processes, and procedures in support of the commander's decision cycle.</p> <p>(5) Continue providing analytical leadership, data collection and analysis to DECRE C2 IS events supporting the development, assessment, and training of command, control, communications, and computers (C4)/cyberspace capabilities. Benefits include the</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
identification/mitigation of cyberspace vulnerabilities for select C2 information systems and the associated network architectures with broad implications for real-world CCMD C2/network configurations.			
(6) Continue the analytical leadership for DOT&E's Automated Cyber Threat Identification and Vulnerability Emulation (ACTIVE) to develop and assess a methodology for assessing cyberspace vulnerabilities and the needed Live, Virtual, Constructive (LVC) environment with supporting simulators/stimulators as well as the various analysis tools needed to support the assessment methodology. Benefits include the initial requirements to integrate cyberspace compliance, vulnerability and interoperability testing into conventional developmental testing.			
(7) Continue providing C2 data collection and analytical support to the Joint Fires Support ESC. Chair the ECIG and lead efforts to develop and assess ECPs for DACAS and DAFS CI to ensure coordinated/incremental system of systems interoperability across US and partner nations. Benefits will include recommendations in the areas of system interoperability, standardization, and development of associated Universal Joint Tasks and TTP.			
(8) Continue to update JDAT tools to support planned assessments as well as DOD-wide Joint test and evaluation activities.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.405	7.102	-

**D. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**E. Acquisition Strategy**  
N/A

**F. Performance Metrics**  
N/A: PE is consolidating in FY2016 - Refer to PE0604826J

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>	<b>Project (Number/Name)</b> P857 / <i>Joint Deployable Analysis Team (JDAT)</i>

**Remarks**  
N/A: PE Consolidating in FY2016 - reference PE0604826J

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 The Joint Staff</b>		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>	<b>Project (Number/Name)</b> P857 / <i>Joint Deployable Analysis Team (JDAT)</i>

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

<b>Consolidation</b>	
Transition to PE0604826J	■

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604828J / <i>Joint FIRES Integration and Interoperability Team</i>	<b>Project (Number/Name)</b> P857 / <i>Joint Deployable Analysis Team (JDAT)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Consolidation</b>				
Transition to PE0604826J	1	2016	1	2016

**Note**

N/A: PE Consolidating in FY2016 - reference PE0604826J

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0605126J I Joint Integrated Air & Missile Defense Organization (JIAMDO)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	269.991	37.314	43.176	35.471	-	35.471	27.967	27.799	30.208	30.208	Continuing	Continuing
P001: Core	83.126	17.862	20.178	15.671	-	15.671	10.437	10.761	11.708	11.708	Continuing	Continuing
P002: Homeland	67.544	-	-	-	-	-	-	-	-	-	Continuing	Continuing
P003: Black Dart	16.583	3.052	3.200	2.444	-	2.444	3.000	3.000	3.300	3.300	Continuing	Continuing
P004: Joint Distributed Engineering Plant	13.712	0.500	3.000	3.000	-	3.000	1.300	1.538	1.700	1.700	Continuing	Continuing
P005: Nimble Fire	44.450	8.727	9.400	8.000	-	8.000	7.230	7.000	7.500	7.500	Continuing	Continuing
P006: Cruise Missile Combat Identification (CID)	44.576	7.173	7.398	6.356	-	6.356	6.000	5.500	6.000	6.000	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 (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. It provides the CJCS and the Joint Requirements Oversight Council (JROC) the ability to meet statutory responsibilities to review the cost, schedule, and performance criteria of Missile Defense Agency (MDA) 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 conduct of Military Utility Assessments and analysis of the Ballistic Missile Defense System (BMDS). JIAMDO supports the USSTRATCOM mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO represents the Joint Staff in work on the AMD Capabilities Based Assessment Joint Service Team. JIAMDO also provides direct support to U.S. Northern Command (USNORTHCOM) for homeland air surveillance issues.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605126J <i>I Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	42.772	43.176	35.471	-	35.471
Current President's Budget	37.314	43.176	35.471	-	35.471
Total Adjustments	-5.458	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-5.458	-	-	-	-

**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.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	<b>Project (Number/Name)</b> P001 / Core
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P001: Core	83.126	17.862	20.178	15.671	-	15.671	10.437	10.761	11.708	11.708	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. It provides the CJCS and the Joint Requirements Oversight Council (JROC) the ability to meet statutory responsibilities to review the cost, schedule, and performance criteria of Missile Defense Agency (MDA) 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 conduct of Military Utility Assessments and analysis of the Ballistic Missile Defense System (BMDS). JIAMDO supports the USSTRATCOM mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO represents the Joint Staff in work on the AMD Capabilities Based Assessment Joint Service Team. JIAMDO also provides direct support to U.S. Northern Command (USNORTHCOM) for homeland air surveillance issues.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Core	17.862	20.178	15.671
<p><b>Description:</b> 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:</p> <ul style="list-style-type: none"> <li>• Develops and integrates joint exercises, simulations, war-games, force resource allocations, and interoperability initiatives</li> <li>• Manages relevant Congressional interaction and CCMD interface through a cadre of liaisons collocated with major headquarters</li> <li>• Directly supports and sponsors homeland air surveillance related demonstration and analysis activities</li> </ul>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P001 / <i>Core</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<ul style="list-style-type: none"> <li>• 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</li> <li>• Develops U.S. positions for, and serves as the U.S. representative to the NATO Air Defense Committee</li> </ul> <p>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 &amp; 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.</p> <p><b>FY 2014 Accomplishments:</b> Performed Ballistic Missile Defense directed studies and program support activities including: contracting, finance, systems engineering and technical assistance, administration, security, communications, leased space and supply. CORE has reduced contracted advisory and assistance services (CAAS), and intends to leverage organic (military and federal civilian) labor to achieve planned mission. A new JIAMDO Security contract was awarded below the independent government cost estimate (IGCE) and previous contract award levels. CORE transitioned JIAMDO office communications to voice-over internet protocol (VOIP) from traditional landline producing savings of \$30K per year.</p> <p><b>FY 2015 Plans:</b> Perform Ballistic Missile Defense directed studies and 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.</p> <p><b>FY 2016 Plans:</b> Perform Ballistic Missile Defense directed studies and program support activities including: contracting, finance, systems engineering and technical assistance, administration, security, communications, leased space and supply. Planned additional</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P001 / <i>Core</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
reductions in contract advisory and assistance services are projected. Planned award of a new SETA contract is anticipated in 2016.			
<b>Accomplishments/Planned Programs Subtotals</b>	17.862	20.178	15.671

**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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P002 / <i>Homeland</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P002: <i>Homeland</i>	67.544	-	-	-	-	-	-	-	-	-	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. It provides the Chairman, JCS and the Joint Requirements Oversight Council (JROC) the ability to meet statutory responsibilities to review the cost, schedule, and performance criteria of Missile Defense Agency (MDA) 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 conduct of Military Utility Assessments and analysis of the Ballistic Missile Defense System (BMDS). JIAMDO supports the USSTRATCOM mission by ensuring operational and technical requirements are integrated into the theater missile warning architecture. JIAMDO represents the Joint Staff in work on the AMD Capabilities Based Assessment Joint Service Team. JIAMDO also provides direct support to U.S. Northern Command (USNORTHCOM) for homeland air surveillance issues.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	<b>Project (Number/Name)</b> P003 / Black Dart
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P003: <i>Black Dart</i>	16.583	3.052	3.200	2.444	-	2.444	3.000	3.000	3.300	3.300	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> JIAMDO Black Dart	3.052	3.200	2.444
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b> Executed live-fly, live-fire C-unmanned aircraft system (UAS) technology demonstration to assess and validate existing and emerging IAMD capabilities. Presented emerging solutions to inform requirements decision-making. Identified and developed IAMD operational concepts, system interoperability, and operational architectures for C-UAS mission set. Advocated for Warfighters' desired C-UAS capabilities and affordable, integrated solutions. Integrated Combatant Command sponsored scenarios, employing an intel-driven mix of threat cruise missile and UAV target surrogates acting in concert, which enabled			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P003 / <i>Black Dart</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>CCMDs to make real-time changes to Tactics, Techniques, and Procedures TP/C2 based on BLACK DART results. Demonstrated steady-state capabilities of the current NNC Homeland Defense Design. Integrated numerous Joint Test and Demonstrations into BLACK DART event to include: Joint Counter Low Slow UAS (JCLU) Joint TTP Development; JEPAC Advanced Electronic Attack Testing; SDEST Electronic Warfare Development; JTAP C2 and Datalink Evaluation; JPHID Improved Combat ID TTP Development. Developed MQ-9 air intercept profiles for future integration of AIM-9X. Developed TTPs and conducted weapons system analysis for: AH-1Z, UH-1Y, AH-64D, F/A-18, EA-18G, EC-130H, JSTARS, EP-3E, MH-60R, E-2D, &amp; Aegis CG. Demonstrated unmanned aerial vehicle UAV as electronic attack platform with Digital Radio Frequency Memory (DRFM) technology. First-ever exploitation of National Technical Means for UAS detection &amp; identification on Link 16. First ever integration of Cyber-attack options.</p> <p><b><i>FY 2015 Plans:</i></b> Continue to improve, expand, and refine FY2014 objectives to include: Continue to develop innovative material and non-material solutions that enhance all phases of the Joint Engagement Sequence versus the UAS threat. Refine kinetic and non-kinetic negation systems and capabilities. Develop detailed threat scenarios based on direct input from CCMDs to provide specific recommendations on material and non-material solutions to warfighter requirements. Expand interagency participation to demonstrate C-UAS options in both Title 10 and Title 50 operational environments. Continue to increase fidelity of threat representations' size &amp; performance. Continue to expand US DoD and Inter-agency system portfolio participation.</p> <p><b><i>FY 2016 Plans:</i></b> Continue FY2015 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	3.052	3.200	2.444

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P003 / <i>Black Dart</i>

(3) Field C-UAS capability.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)				<b>Project (Number/Name)</b> P004 / Joint Distributed Engineering Plant			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P004: Joint Distributed Engineering Plant	13.712	0.500	3.000	3.000	-	3.000	1.300	1.538	1.700	1.700	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Joint Distributed Engineering Plant (JDEP)	0.500	3.000	3.000
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b>			
Received results from effort to improve link interoperability between the U.S. E-2 and North Atlantic Treaty Organization (NATO) E-3. New capability identified to significantly improve the recognized air picture by modifying software parameters in both			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P004 / <i>Joint Distributed Engineering Plant</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>systems. Capability results in a no-cost solution to Allied interoperability. Continued U.S./UK Coalition effort for Correlation De-correlation Interoperability Testing to further apply the Chairman of the Joint Chiefs of Staff Integrated Air and Missile Defense Vision for 2020.</p> <p><b>FY 2015 Plans:</b> 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.</p> <p><b>FY 2016 Plans:</b> 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.500	3.000	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) 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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)	<b>Project (Number/Name)</b> P005 / Nimble Fire
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P005: <i>Nimble Fire</i>	44.450	8.727	9.400	8.000	-	8.000	7.230	7.000	7.500	7.500	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 2014	FY 2015	FY 2016
<b>Title:</b> JIAMDO Nimble Fire	8.727	9.400	8.000
<p><b>Description:</b> 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.</p> <p><b>FY 2014 Accomplishments:</b> Continued to provide the Joint Staff, Services, Combatant Commanders and Missile Defense Agency (MDA) with the necessary information to better inform acquisition and requirements decisions.</p>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P005 / <i>Nimble Fire</i>
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p>In support of OSD (AT&amp;L), VCJS and CDR NORAD-NORTHCOM, conducted a Homeland wargame assessing current and future IAMD architectures' ability to address the cruise missile threat to the National Capital Region.</p> <p>Supported U.S. Fleet Forces Command (USFFC) Naval Integrated Fire Control – Counter Air (NIFC-CA) wargame designed to provide familiarization and training to the Theodore Roosevelt Carrier Strike Group (CSG). USN senior leaders decided to use the venue to train the next 3 CSGs.</p> <p>Conducted JROC-directed reassessment of the U.S. Pacific Command (PACOM) IAMD capability against projected 2020 threat. In collaboration with the Services, MDA, USSTRATCOM and USCYBERCOM, introduced additional kinetic and non-kinetic capabilities.</p> <p>Provided Army leadership with data on the contribution of Army's Indirect Fire Protection Capability Increment 2I (IFPC-2I) to cruise missile defense (CMD) in CENTCOM.</p> <p>Supported USMC expeditionary warfare analysis considering Expeditionary Force 21 Capstone Concept tenets.</p> <p>Funded and integrated a wide range of new capabilities and simulations: (1) 4 manned adversary simulators; enhancing both red and blue TTP development and threat employment, (2) MDA approved Terminal High Altitude Area Defense (THAAD) model, (3) Enhanced Electronic Warfare (EW) modeling for all IAMD platforms, (4) USAF's 3 Dimensional Expeditionary Long-Range Radar (3DELRR) per initial Technical Requirements Document.</p> <p>Provided unique data collection, analysis and visualization capabilities to stakeholders and extracted end-to-end kill chain information to support IAMD assessments and findings.</p> <p>Additional details are classified.</p> <p><b>FY 2015 Plans:</b> Fund and execute at least 2 Joint events and provide direct support for up to 3 Service, MDA or COCOM sponsored events.</p> <p>Continue to improve overall environment capabilities exploring all aspects of the Chairman's Joint IAMD Vision 2020.</p> <p>Improve blue force systems and capabilities to represent projected FYDP+2 upgrades.</p> <p>Partner with USSTRATCOM to improve overall Electronic Warfare capabilities.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P005 / <i>Nimble Fire</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Collaborate with AMRAAM project office to standardize modeling of air-to-air missiles on all USN and USAF weapon systems.			
Integrate 4 additional Joint Strike Fighter simulations to better explore Joint interoperability.			
Continue to investigate future gateway concept contributions to Joint IAMD.			
Strengthen ties with intelligence community (e.g., Office of Naval Intelligence (ONI), Missile and Space Intelligence Center (MSIC), National Air and Space Intelligence Center (NASIC)) for improved threat representation.			
Explore 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.			
<b>FY 2016 Plans:</b>			
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.			
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.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.727	9.400	8.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P005 / <i>Nimble Fire</i>
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> Not required for Budget Activities 1, 2, 3 and 6.		
<b>E. Performance Metrics</b> (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.		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605126J / Joint Integrated Air & Missile Defense Organization (JIAMDO)				<b>Project (Number/Name)</b> P006 / Cruise Missile Combat Identification (CID)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P006: Cruise Missile Combat Identification (CID)	44.576	7.173	7.398	6.356	-	6.356	6.000	5.500	6.000	6.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Cruise Missile Combat Identification (CID)	7.173	7.398	6.356
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b> Details of this program are classified.			
<b>FY 2015 Plans:</b> Details of this program are classified.			
<b>FY 2016 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605126J / <i>Joint Integrated Air &amp; Missile Defense Organization (JIAMDO)</i>	<b>Project (Number/Name)</b> P006 / <i>Cruise Missile Combat Identification (CID)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Details of this program are classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.173	7.398	6.356

**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 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605502J / <i>Small Business Innovation Research/Small Business Technology Transfer Program</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	2.177	-	-	-	-	-	-	-	-	Continuing	Continuing
001: <i>SBIR/STTR</i>	-	2.177	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) Program. Title 15, Section 638 of the United States Code established the SBIR and STTR program and requirements.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>FY 2016 Base</u></b>	<b><u>FY 2016 OCO</u></b>	<b><u>FY 2016 Total</u></b>
Previous President's Budget	-	-	-	-	-
Current President's Budget	2.177	-	-	-	-
Total Adjustments	2.177	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	2.177	-			

**Change Summary Explanation**

Reflects FY2014 SBIR/STTR requirement. Per Title 15, Section 638 of United States Code, SBIR/STTR transfers will occur through 30 Sep 2017.

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0204571J I <i>Joint Staff Analytical Support (JSAS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	3.010	5.591	10.321	7.673	-	7.673	5.812	5.763	5.751	5.751	Continuing	Continuing
P001: <i>Future Joint Force Development</i>	0.018	-	9.489	7.673	-	7.673	5.812	5.763	5.751	5.751	Continuing	Continuing
P002: <i>Global Force Management Data Initiative (GFM DI)</i>	2.992	5.591	0.832	-	-	-	-	-	-	-	-	9.415

**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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	0.087	10.321	7.673	-	7.673
Current President's Budget	5.591	10.321	7.673	-	7.673
Total Adjustments	5.504	-	-	-	-
• Congressional General Reductions	-	-	-	-	-
• Congressional Directed Reductions	-	-	-	-	-
• Congressional Rescissions	-	-	-	-	-
• Congressional Adds	-	-	-	-	-
• Congressional Directed Transfers	-	-	-	-	-
• Reprogrammings	-	-	-	-	-
• SBIR/STTR Transfer	-	-	-	-	-
• Prior year carry-over obligated	5.504	-	-	-	-

**Change Summary Explanation**

Continues concept development and wargaming functions.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0204571J / <i>Joint Staff Analytical Support (JSAS)</i>				<b>Project (Number/Name)</b> P001 / <i>Future Joint Force Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P001: <i>Future Joint Force Development</i>	0.018	-	9.489	7.673	-	7.673	5.812	5.763	5.751	5.751	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, joint concept development and joint wargaming capabilities for the Joint Staff (TJS) and Combatant Commands (CCMDs). JSAS encompasses the developmental tools and infrastructure required to conduct evaluation of concepts through Wargaming, develops joint concepts, conducts research and analysis of joint capability gaps, and actively researches, develops and integrates relevant non-materiel solutions, lessons learned, and best practices across the Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities (DOTmLPE) spectrum to support increased capability for the current and future Joint Force to assist the Chairman in fulfilling his statutory responsibilities. Key deliverables provided by JSAS include wide-ranging force structure assessments through joint concept development, joint wargaming by utilizing joint and coalition operational analysis which provides course of action development for the Joint Force structure, and environment, analyses, and studies to aid in decision-making and other analysis efforts to implement timely, low-cost initiatives.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Future Joint Force Development	-	9.489	7.673
<p><b>Description:</b> FY2015 efforts will focus on supporting the President’s “Sustaining U.S. Global Leadership Priorities for the 21st Century Defense” with emphasis on implementing the Joint Operational Access Concept, and building Joint Force 2020 as described in the Chairman, Joint Chiefs of Staff Capstone Concept for Joint Operations. Specific work will focus on joint concept development, including implementation, evaluation through the Iron Crucible Wargaming effort, gap analysis, the resultant recommended non-materiel solutions that will improve current and future joint force capability including operating in anti-access and area denial environments, joint command &amp; control, counterterrorism, and defeating threats in all domains, including cyber.</p> <p><b>FY 2014 Accomplishments:</b> FY2014 accomplishments include the inaugural execution of the Chairman’s Wargame, Iron Crucible, which assesses the ability of the programmed Joint Force of 2020 to execute globally integrated operations through global agility and flexible joint command and control. The first execution of Iron Crucible will focus on the Capstone Concept for Joint Force 2020 (CCJO), the Joint Operational Access Concept (JOAC), the Joint Concept for Entry Operations (JCEO), and the Joint Concept for Rapid Aggregation (JCRA). The outcome will validate the central idea of the concepts and discovered capability gaps to be considered for future concepts. In support of the anticipated development of a follow-on to the current CCJO, a sequence of seminars engaging military and civilian DoD experts, academia, and think tanks on the future operations environment beyond 2020 was initiated and will conclude in FY2015 with the publishing of a final report. Other accomplishments include the completion</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0204571J / <i>Joint Staff Analytical Support (JSAS)</i>	<b>Project (Number/Name)</b> P001 / <i>Future Joint Force Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
and signing of the JCEO and JCRA plus implementation plans for JOAC, JCEO and JCRA, and the Joint Concept for Joint Electromagnetic Spectrum Operations (JCJEMSO).  <b><i>FY 2015 Plans:</i></b> Specific work will focus on joint concept development, including implementation, evaluation through the Iron Crucible Wargaming effort, gap analysis, the resultant recommended 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.  <b><i>FY 2016 Plans:</i></b> Specific work will focus on joint concept development, including implementation, evaluation through the Iron Crucible Wargaming effort, gap analysis, the resultant recommended 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	9.489	7.673

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Future Joint Force Development efforts result in development of and integration or transition/implementation of concepts and capabilities to improve current and future joint force capability, and are measured by the following:

- (1) Completion of implementation plans for approved concepts and establishment of assessment mechanisms to measure execution of implementation plans.
- (2) Collaboration with a broad, cross-cutting representation from Services, Academia, CCMDs, Defense Agencies, and Industry to conduct research and produce analysis in support of Joint Force development.
- (3) Introduce teams of innovative operating methods leading to DOTmLPPF changes.
- (4) Development of new concepts which are vetted through a deliberate, rigorous, process resulting in Chairman of the Joint Chiefs of Staff (CJCS) endorsement.
- (5) Successful execution of CJCS Wargame, Iron Crucible series of events, and transition of wargame outcomes into appropriate mechanisms to foster Joint Force Development consistent with CJCS Joint Force 2020 objectives.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0204571J / Joint Staff Analytical Support (JSAS)	<b>Project (Number/Name)</b> P002 / Global Force Management Data Initiative (GFM DI)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P002: Global Force Management Data Initiative (GFM DI)	2.992	5.591	0.832	-	-	-	-	-	-	-	-	9.415
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 2014	FY 2015	FY 2016
<b>Title:</b> Global Force Management Data Initiative (GFM DI)	5.591	0.832	-
<b>Description:</b> 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.			
<b>FY 2014 Accomplishments:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0204571J / <i>Joint Staff Analytical Support (JSAS)</i>	<b>Project (Number/Name)</b> P002 / <i>Global Force Management Data Initiative (GFM DI)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Development of the AGT for Assignment and Apportionment functions to meet Full Operation Capability (FOC) schedule. Once FOC, AGT will need to be tested with actual data via individual service management systems (servers) to validate the forces assignment.  <b>FY 2015 Plans:</b> 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.				
<b>Accomplishments/Planned Programs Subtotals</b>		5.591	0.832	-
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b> N/A				
<b>E. Performance Metrics</b> (1) The Services, CCMDs, Joint Staff and OSD will be able to efficiently manage force structure resources in half the time the current process takes. (2) Global force structure management will now become a near-real time planning tool.				

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0303166J / Support to Information Operations Capability
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	3.975	8.348	11.552	10.413	-	10.413	10.576	10.700	10.700	10.700	Continuing	Continuing
001: Information Operations Range	3.975	8.348	11.552	10.413	-	10.413	10.576	10.700	10.700	10.700	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	8.394	11.552	10.413	-	10.413
Current President's Budget	8.348	11.552	10.413	-	10.413
Total Adjustments	-0.046	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-0.046	-	-	-	-

**Change Summary Explanation**

The increase in funding between FY2014 and FY2015 improves Joint IO range training & assessment throughput capacity to address CJCS mandates. The change from FY15 to FY16 is \$0.161 increase in funding baseline and a decrease in funding due to a zero-based transfer of \$1.3M from RDT&E to O&M to properly align labor costs with operations.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303166J <i>I Support to Information Operations Capability</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> Information Operations Range</p> <p><b>Description:</b> 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.</p> <p><b>FY 2014 Accomplishments:</b></p> <p>(1) Increased JIOR capacity to support a 50 percent increase in user demand for training, testing, and experimentation event support through site expansion and development of new persistent environments. Increased JIOR capabilities, expanding Network Operations &amp; Security Center (NOSC) coverage (12x5) to support increased user demand; completed proof-of-concept as precursor to transition to hybrid Defense Research and Engineering Network – Defense Information Systems Network (DREN-DISN) transport circuit solution.</p> <p>(2) Developed and began fielding Live Laboratory Advanced Visual Analytics (LAVA); 1 Gigabits per second (Gbps) capable JIOR service delivery points.</p> <p>(3) Reduced risk by completion of deferred critical lifecycle maintenance &amp; deployment of improved network test equipment.</p> <p><b>FY 2015 Plans:</b></p> <p>(1) Expand national DoD and Inter-Agency awareness and support regarding IO and cyber related activities</p> <p>(2) Improve the threat representation and operational relevance of the network</p> <p>(3) Improve the integration of Live Virtual Constructive (LVC) simulations with other Joint training and testing communities and infrastructures</p> <p><b>FY 2016 Plans:</b></p> <p>Continues FY2015 efforts:</p> <p>(1) Expand national DoD and Inter-Agency awareness and support regarding IO and cyber related activities</p> <p>(2) Improve the threat representation and operational relevance of the network</p> <p>(3) Improve the integration of LVC simulations with other Joint training and testing communities and infrastructures</p>	8.348	11.552	10.413
<b>Accomplishments/Planned Programs Subtotals</b>	8.348	11.552	10.413

**D. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 The Joint Staff Date: February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303166J / <i>Support to Information Operations Capability</i>
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**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.

**F. Performance Metrics**

RDT&E development efforts are evaluated based on the performance metrics. This ensures the JIOR capacity and capability development funding is synchronized against prioritized training and testing requirements, based on designs derived and tested against synchronized requirements, and result in deployed capabilities that are within the enterprise's capacity to deliver. Performance metrics include, but are not limited to; cost, time, relevancy, and analytics and as defined below:

- Cost – Does the effort enable the most cost effective cyber training?
- Time – Will the effort enable trainers/ testers to more quickly create and synchronize testing, and more rapidly plan and execute cyber training and test events?
- Relevance – Will the effort enable cyber mission forces certification and re-certification, and training? Does the capability enable cyber range practitioners to more rapidly reconfigure networks? Does the capability increase range availability to conduct relevant training based upon realistic design of cyber environments?
- Analytics – Will the effort enable cyber practitioners to better assess how well individuals, staff and/or units operate under cyber-induced degraded, denied or compromised network conditions?

- Measures:
- (1) Meet capacity needs to train and certify Cyber Mission Forces (CMF) teams through FY2016.
  - (2) Complete all planned lifecycle modernization upgrades for FY2016.
  - (3) Initiate project to enable hybrid communications transport circuit solution & transition eligible JIOR communication circuits from Defense Research and Engineering Network – Defense Information Systems Network (multi-year project).
  - (4) Initiate project to peer the Joint IO Range and the Joint Mission Environment Test Capability 2.0 (JMETC 2.0) in order to leverage each other's assets/capabilities.
  - (5) Host Cyber Guard/Cyber Flag events with less than two priority-1 (urgent fix required) and three priority-2 (immediate fix) problem trouble reports per event.
  - (6) Complete DoD Architecture Framework (DODAF) Viewpoint surveys and documentation in FY15. Use DODAF findings to vet designs for a virtual mil-ops cyber range with enterprise stakeholders.
  - (7) Work towards automating manual paper-driven planning processes in order to reduce event planning timeline.
  - (8) Leverage automation to progress towards reducing network reconfiguration time to maximize environment use and reuse of Defense Enterprise Cyber Range Environment (DECRE) ranges.
  - (9) Field Live Laboratory Advanced Visual Analytics (LAVA) to users of the JIOR.

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607828J <i>Joint Integration &amp; Interoperability</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	4.200	11.847	11.968	-	-	-	-	-	-	-	-	28.015
P818: <i>Joint Integration &amp; Interoperability</i>	4.200	11.847	11.968	-	-	-	-	-	-	-	-	28.015
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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	12.652	11.968	11.594	-	11.594
Current President's Budget	11.847	11.968	-	-	-
Total Adjustments	-0.805	-	-11.594	-	-11.594
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-0.805	-	-	-	-
• PE Consolidation	-	-	-11.594	-	-11.594

**Change Summary Explanation**

In FY2016, PE 0607828J - Joint Integration and Interoperability is realigned to PE 0604826J.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Joint Integration & Interoperability	11.847	11.968	-
<b>FY 2014 Accomplishments:</b>			
(1) Completed 343 Joint Capabilities Integration and Development System (JCIDS)/ Information Support Plan reviews.			
(2) Provided C4/Cyber Functional Capabilities Board Action Officer support for 13 programs.			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607828J <i>I Joint Integration &amp; Interoperability</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>(3) Completed Mission Partner Environment (MPE) implementation milestones on schedule:</p> <ul style="list-style-type: none"> <li>- Coordinated MPE governance and management forums as required, to include annual Executive Steering Committee (ESC) sessions</li> <li>- Maintained and evolved the U.S. Joining Membership and Exiting Instructions (JMEI) as required</li> <li>- Ensured continued MPE implementation by conducting bi-weekly Coordination Meetings</li> </ul> <p>(4) Participated in multinational engagement forums as required to support the DD C5I mission:</p> <ul style="list-style-type: none"> <li>- Supported NATO Federated Mission Networking (FMN) governance, management and implementation events as scheduled to ensure continued alignment with MPE</li> <li>- Supported semi-annual NATO C3 Board meetings, helping to evolve alliance C2 strategies</li> <li>- Sponsored capability development events such as the semi-annual TIDE Sprint and the NATO Computer Assisted Exercise (CAX) Forum</li> <li>- Coordinate with the NATO C2 and Modeling and Simulation (M&amp;S) Centres of Excellence (COEs) to ensure their respective Programs of Work (POWs) align with DD C5I priorities, including participating in their annual Steering Board/Steering Committee meetings which approve the POWs.</li> </ul> <p>(5) Developed a Department-wide integrated cyber range capability involving multiple mission partners and capabilities to address cyber vulnerabilities and risks:</p> <ul style="list-style-type: none"> <li>- Developed representations of Combatant Command (CCMD) and Joint Functional Component Commands' C2 architectures to foster cyber capability development and training.</li> <li>- Developed an operational relevant environment for Combatant Commanders and decision-makers to address the cyber threat with minimum impact on operations.</li> <li>- Developed a distributed and realistic collective training environment for TTP development and pre-deployment team training for National Mission Force CPTs.</li> <li>- Conducted planning and execution of three C4 Cyber Assessment events consisting of nine phases between March 2013 and July 2014 enabled accelerated teamwork, engineering, data collection, analysis, and interoperability across the Department's cyber ranges and mission partners.</li> </ul> <p>(6) Performed C2 capability prioritization and sequencing via the OUSD(AT&amp;L) and DoD CIO-sponsored Joint C2 Sustainment and Modernization Planning process, with follow-on C2 capability production, integration, fielding and sustainment for FY13/14 approved priorities. Provided direct engagement with Component materiel developers to operationally shape C2 products and solutions while ensuring requirements traceability through the Net-enabled Requirements Identification Database, the Decision Support Tool (with operator use cases), and JCIDS requirements documents. JCIDS documents included twelve Capability Definition Packages (CDPs) and Capability Packages (CPs) supporting the mission areas of force employment, situational</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 0607828J <i>Joint Integration &amp; Interoperability</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>awareness, security cooperation, air event information sharing, joint planning &amp; execution, cyber C2 and cross-functional capabilities. JCIDS documents included functional requirements for mission services, cross domain enterprise services, cyber security, and coalition data exchange—heavily influenced Service acceptance of new JCIDS Manual's Information Technology (IT) Box process for IT requirements management.</p> <p>(7) Developed, staffed, and received approval for key Chairman Joint Chiefs of Staff documents, i.e., Chairman, Joint Chiefs of Staff Instruction (CJCSI) 3265.01, C2 Governance and Management (Oct 2013), and Chairman, Joint Chiefs of Staff Manual (CJCSM) 3265.01, Joint C2 Requirements Management Process and Procedures (Nov 2013) which guide DoD's Joint C2 capability needs development and management across the Combatant Commands, Services and Agencies. Developed the FY2014 Requirements Prioritization and Sequencing Plan and JROC-approved FY15 Joint C2 Operational Priorities (JROCM 024-14) which are the Warfighters' demand signal for the annual Joint C2 Sustainment and Modernization Plan (SMP)—approved by OUSD/AT&amp;L and guides the sustainment of current C2 capabilities and the synchronized development of future C2 capabilities (modernization)—a \$750M materiel investment.</p> <p>(8) FY2014 Joint C2 materiel capability delivery included: 1) Initial fielding of the Global-Theater Security Cooperation Management FY2014 Accomplishments (cont'd)</p> <p>Information System to Combatant Commands (Mar 2014)—provides a common web-based, single, centrally-hosted enterprise capability that serves as the information focal point for DoD security cooperation while sun-setting nine disparate stand-alone applications; 2) delivery of 30+ Joint C2 Common User Interface (CUI) widgets focused on situational awareness, intel support to C2, targeting, and Global Force Management—available to warfighters through a web-enabled, thin-client marketplace; 3) delivery of Agile Client capabilities (focused on situational awareness) with modular thick-client applications and plug-ins to enhance Common Operational Picture capabilities; 4) enabled increased access to USNORTHCOM's Air Event Information Sharing Service—provides time-sensitive exchange of decision support &amp; air track data for air defense and air security partners (U.S. Federal, DoD, and North American national agencies) supporting Operation NOBLE EAGLE (ONE) air events; and 5) fielding of Global Command &amp; Control System-Joint (GCCS-J) Global software version 4.3 for improved COP message formats, new targeting capabilities, and COP track data tagging enhancements (reduces ghost tracks).</p> <p>(9) Conducted Joint Staff sponsored Bold Quest Coalition Capability Demonstration and Assessment involving 12 partner nations, all US Services and U.S. Special Operations Command successfully demonstrating the integration of Mode 5 interoperability and live, virtual, construction dismounted operations at Ft Benning GA, White Sands Missile Range, NM, Holloman AFB, NM, and Ft Bliss, TX. Systems of systems interoperability assessment focused on command and control missions from a multi-national</p>				

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015		
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>perspective at the tactical level. Led 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.</p> <p>(10) Led Accreditation visits to 5 Joint Terminal Attack Controller (JTAC) 1 Forward Air Controller (Airborne), and 2 Joint Fires Observer (JFO) Schoolhouses.</p> <p>(11) Validated a significant number Joint Information Environment (JIE) solutions architectures consisting of Unified Capabilities, Enterprise Operations Centers (EOC), Core Data Center (CDC), Single Security Architecture, Installation Processing Node (IPN), Installation Service Node, Network Normalization Transport and Engineering Design Specifications for EOC, CDC and IPN for the Director Joint Staff J6.</p> <p>(12) Developed, staffed and produced Joint Common Systems Function List Version 6.0.</p> <p>(13) Developed the Capability to Gap Analysis for the JIE Initial Capabilities Document (ICD), assisted in the development of sections of the ICD and the metrics for the capability requirements and the ICD integrated architectures – approved by JROCM 075-14.</p> <p>(14) Successfully engaged combatant command representatives in JIE through the use of engagement meetings and staffing of JIE architectures.</p> <p>(15) Developed and successfully applied criteria for the use of JCIDS for JIE capability development and refinement.</p> <p>(16) Identified a SOF best practice for En-route Mission Command Capability (EMCC) and developed, demonstrated via Tactics, Techniques and Procedures (TTP) improved en-route C2 capability to facilitate planning and situational awareness (SA) during forcible entry operations for all DoD Global Response Forces.</p> <p>(17) Developed and fielded JIE Integrated Dictionary (AV-2) Development Guidance to provide standardized processes to support normalization and synchronization of over 4000 terms and definitions.</p> <p>(18) Hosted and provided Quality Assurance and Configuration Management for over 1500 JIE architecture views in the WMA Architecture Federation and Integration Portal (AFIP)</p> <p>(19) Developed and implemented of WMA Architecture Development Standards Guide (June 2014) and received first time C/S/A concurrence on standardized processes and methodologies for sharing of architecture.</p>				



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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607828J <i>I Joint Integration &amp; Interoperability</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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(20) Made significant improvements to the portal code, at virtually no additional cost to the Joint Staff or WMA partners, supporting scalability for hosting of architectures for the USAF, USNORTHCOM, USSOUTHCOM, USCENTCOM, and USSOCOM, resulting in annual savings of over \$5 million to those organizations.

(21) Developed updated Joint C2 CDD supporting architectures (ver. 1.4).

(22) Started the Acquisition Technology and Logistics (AT&L) co-sponsored cross-cutting study of the JSEAD mission area with the effort during this year centering on the data collection and Mission analysis – final report due in FY15.

(23) Introduced Joint Mission Thread concepts to NATO as a baseline for development of NATO and National level mission threads. First step in developing methods for interoperable and reusable architecture data across mission partners.

(24) Shared Joint Mission Thread methodology with Department of Homeland Security (DHS) resulting in development of first DHS Operations Mission Thread, Maritime Interdiction.

(25) Led the development of the JS J6 inputs for the Joint Command and Control Reference Architecture.

(26) Completed 3 Data & Services Steering Committees (DSSC); Established new IT Governance Body, Enterprise Service & Data Panel (ESDP) and held 7 sessions; Led two Data Management Syndicate (DMS) sessions; generated a NATO Core Data Framework Vision paper; led one Data Tagging & Labeling (DATAL) tiger team with the five eye nations: Established the National Information Exchange Model (NIEM) Military Operations (MILOPS) Domain V1.0; held two Configuration Control; Generated a NIEM conformance test paper for JIE; Established the Tactical Infrastructure Enterprise Service (TIES) Joint Capability Technology Demonstration (JCTD) and Coalition Warfare Program (CWP); demonstrated a tactical coalition identity management solution in CWIX14; Provided quarterly authoritative data sources (ADS) exposure metrics to the Joint Capability Board (JCB); mapped the ADS to FY14 operational priorities and to the existing warfighter joint mission threads; Generated CYBER Situational Awareness data needs; Completed revision of MIL-STD-2525D, Joint Military Symbolology and CJCSM 6120.01 Joint Multi-TDL Operating Procedures and their associated NATO Allied Procedural Publications, (APP)-06 and ADatP 33; Voting representation FY 2014 Accomplishments (cont'd)

or subject matter expert in 10 tactical data link forums, three as Lead, four as Co-Lead; and seven NATO TDL sessions, one as Lead; for US Message Text Format (USMTF) in 6 MTF forums; 3 Geospatial Working Groups and 7 sub working group meetings to

<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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include the Country Code WG that finalized version 2 of the US Geopolitical Entities, Names, and Codes (GENC); Launched the Interoperability Enhancement Process (IEP) capability in the Defense Enterprise Computing Center (DECC) at Ogden, Utah.

**FY 2015 Plans:**

(1) Serve as DoD’s capability sponsor, requirements lead, and Warfighter advocate for Joint C2 family of programs encompassing mission focus areas for situational awareness/common operational picture, intelligence support to C2/targeting, force employment, planning & execution, cyber C2, and core-enabling/cross-functional capabilities. 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 (gaps, shortfall), defined requirements (old, new, emerging), and potential solutions for C2 stakeholders and decision-makers to consider. Lead C2 working groups and O6-level forums to synchronize C2 requirements development and Service program synchronization. Develop/coordinate the annual Joint C2 Operational Priorities (encompassing sustainment and modernization needs) as the warfighter’s demand signal for required capability needs and obtain JROC-approval. Develop/staff the FY16 Requirements Prioritization and Sequencing Plan and JCIDS documents (Capability Definition Packages and Capability Packages) to sustain and modernize the Joint C2 family of programs—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. Perform direct engagement/collaboration with Component materiel developers to ensure requirements traceability throughout the materiel development process. Engage with Joint and mission partners to improve coalition C2 data exchange.

(2) Validate JIE Architectures for Director Joint Staff J6. Provide Joint Staff representation and positions for the JIE JTRB. Conduct analysis, Identify integration, synchronization and risk issues as they pertain to JIE Architectures and Engineering Design Standards. Develop architectures for Joint Information Environment (JIE) requirements development, acquisition of capabilities and conformation of JIE compliance. Provide analysis and recommendations to the JTSO IDTs and CIO RA Working Groups. Coordinate staffing of JIE Architectures, Integrated Dictionary and EDSs with the CCMDs, Services and Agencies via JSAP. Maintain and refine the Joint Common Systems Function List V 7.0 for use in reference and solutions architectures required for JCIDS, ISPs and JIE. Analyze JCIDS Capability Documents and ISPs and their architectures for interoperability, integration, performance, cost and schedule. Develop integrated architectures for the Joint Staff Warfighting Mission Area.

(3) Continue to lead implementation and integration efforts for DoD Joint Information Environment (JIE) / Mission Partner Environment (MPE) capabilities, including piloting and implementation efforts with COCOMs, Services, Agencies, and Coalition partners. Continue the integration of JIE/MPE and Cyber capabilities into joint and coalition training. Extend development of JIE/ MPE architecture products to enhance linkage with Coalition partners. Leverage the Joint C4I Partnership to manage capability development, assessment, test, and certification of COCOM and JTF C4I systems and capabilities. Continue development of C4/ Cyber requirements and assessment of systems providing capabilities to joint missions in an operational environment to verify

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>interoperability earlier in the development cycle. Continue to develop, prioritize, and sequence C4/Cyber capability requirements and enterprise mission services.</p> <p>(4) Continue to 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. Execute Joint Staff-sponsored Bold Quest 2015 assessment demonstration, including integration of Cyber capabilities with command and control of Conventional and Special Operations Force missions from a multi-national perspective at the tactical level.</p> <p>(5) Support DOD CIO efforts to refine and implement the DOD Data Framework and lead the implementation of the NIEM Military Operations Domain, data exchange standards. Continue JROC-directed Authoritative Data Source (ADS) work with emphasis on the Cyber mission area. Begin transition of Tactical Infrastructure Enterprise Services (TIES) Joint Capability Technology Demonstration (JCTD) to automate DOD meta-data tagging and identity access capabilities.</p> <p>(6) Continue to lead implementation and integration efforts for DoD Joint Information Environment (JIE) / Mission Partner Environment (MPE) capabilities, including piloting and implementation efforts with COCOMs, Services, Agencies, and Coalition partners. Continue the integration of JIE/MPE and Cyber capabilities into joint and coalition training. Extend development of JIE/MPE architecture products to enhance linkage with Coalition partners. Leverage the Joint C4I Partnership to manage capability development, assessment, test, and certification of COCOM and JTF C4I systems and capabilities. Continue development of C4/Cyber requirements and assessment of systems providing capabilities to joint missions in an operational environment to verify interoperability earlier in the development cycle. Continue to develop, prioritize, and sequence C4/Cyber capability requirements and enterprise mission services.</p> <p>(7) Continue to 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. Execute Joint Staff-sponsored Bold Quest 2015 assessment demonstration, including integration of Cyber capabilities with command and control of Conventional and Special Operations Force missions from a multi-national perspective at the tactical level.</p> <p>(8) Support DOD CIO efforts to refine and implement the DOD Data Framework and lead the implementation of the NIEM Military Operations Domain, data exchange standards. Continue JROC-directed Authoritative Data Source (ADS) work with emphasis on the Cyber mission area. Begin transition of Tactical Infrastructure Enterprise Services (TIES) Joint Capability Technology Demonstration (JCTD) to automate DOD meta-data tagging and identity access capabilities.</p> <p>(9) Continue development of joint mission threads in accordance with JROC and C4/Cyber FCB guidance to expand development of solutions architectures for enterprise mission services in support of DOD JIE/MPE and Cyber capabilities. Provide joint mission</p>			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 The Joint Staff	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0607828J <i>I Joint Integration &amp; Interoperability</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
thread data via web-enabled portal capability to enable operational context data reuse for testing, training, programming, and program development. Continue to refine the quantity and quality of WMA architecture data available to support DOD CIO architecture requirements and Joint Staff capability analysis, assessments, and modeling and simulation processes. Analyze NR KPP architectures and capabilities for interoperability and integration, and provide NR KPP waiver recommendations based on operational/systems requirements analysis.			
<b>Accomplishments/Planned Programs Subtotals</b>	11.847	11.968	-

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

N/A

**Remarks**

**E. Acquisition Strategy**

N/A - FY2016 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 - FY2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 The Joint Staff</b>		<b>Date:</b> February 2015
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**Remarks**  
FY 2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607828J / <i>Joint Integration &amp; Interoperability</i>	<b>Project (Number/Name)</b> P818 / <i>Joint Integration &amp; Interoperability</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Consolidation</b>																												
PE Consolidation.	■																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0607828J / <i>Joint Integration &amp; Interoperability</i>	<b>Project (Number/Name)</b> P818 / <i>Joint Integration &amp; Interoperability</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Consolidation</b>				
PE Consolidation.	1	2016	1	2016

**Note**

FY 2016 consolidation of this PE (0607828J) and two other legacy JFCOM PEs (0604787J, 0604828J) into 1 new Joint Staff PE (0604826J).

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208043J I <i>Planning and Decision Aid System (PDAS)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	8.293	2.838	1.842	3.061	-	3.061	3.061	3.061	3.061	3.061	Continuing	Continuing
P001: <i>Planning and Decision Aid System OPS</i>	8.293	2.838	1.842	3.061	-	3.061	3.061	3.061	3.061	3.061	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	3.061	1.842	3.061	-	3.061
Current President's Budget	2.838	1.842	3.061	-	3.061
Total Adjustments	-0.223	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Carry-over from FY2014	-0.223	-	-	-	-

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 The Joint Staff **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0902298J I <i>Management Headquarters</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	9.685	2.926	4.409	2.978	-	2.978	1.010	1.055	1.055	1.055	Continuing	Continuing
P001: <i>Joint Staff Information Network (JSIN)</i>	9.685	2.926	4.409	2.978	-	2.978	1.010	1.055	1.055	1.055	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 Joint Chiefs of Staff (JCS). JSIN improves action processing for faster coordination of critical issues with CCMDs, Services, and Agencies, as well as within TJS.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	3.475	4.409	2.978	-	2.978
Current President's Budget	2.926	4.409	2.978	-	2.978
Total Adjustments	-0.549	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Prior year carry-over	-0.549	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0902298J / Management Headquarters				<b>Project (Number/Name)</b> P001 / Joint Staff Information Network (JSIN)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
P001: Joint Staff Information Network (JSIN)	9.685	2.926	4.409	2.978	-	2.978	1.010	1.055	1.055	1.055	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Management Headquarters provides the day-to-day financial resources necessary to support The Joint Staff (TJS) operations. Across TJS, Management Headquarters supports various efforts including network infrastructure, civilian pay accounts, supplies, travel, training, portfolio management, business process reviews, and transformation initiatives. TJS is transitioning to the Joint Information Environment (JIE) framework to achieve full spectrum superiority, improve mission effectiveness, increase security, and realize IT efficiencies.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Joint Staff Information Network (JSIN)	2.926	4.409	2.978
<p><b>Description:</b> Provides RDT&amp;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 CCMDs, Services, and Agencies, as well as within TJS.</p>			
<p><b>FY 2014 Accomplishments:</b> Developed technological solutions to Joint Staff Information Technology initiatives including Enterprise Services Implementation of Enterprise Task Management (U/S). The Joint Information Environment (JIE) electronic Document, Task and Records Management (eDTRM) solution was developed to provide an Open Technology / Open Source Solution with the ability to leverage Cloud computing capabilities in support of operational requirements for documents, tasks, and records management. The funding provided the Joint Staff (JS) with engineering design, testing, evaluation, delivery, licensing, and management support associated with the JIE eDTRM project.</p>			
<p><b>FY 2015 Plans:</b> Provide planning and support to Joint Staff Information Technology initiatives, including continued migration for Service Desk operations to the US Army Information Technology Agency (ITA) and JS applications, refinement of Thin Client (U) and Mobile Computing solutions, Application Virtualization (S) and (U), Cross Domain Services FOC, Joint Staff Action Processing-Modified system transition to an Enterprise Content Management and Task Management (U/S) optimization and integration through JIE in a Core Data Center, on-going STE transition to Secure VOIP/VoSIP, Enterprise Services Implementation including Enterprise Task Management (U/S), Identity and Access Management capabilities, implementation of a Managed Print Service (MPS),</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0902298J / <i>Management Headquarters</i>	<b>Project (Number/Name)</b> P001 / <i>Joint Staff Information Network (JSIN)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Unified Capabilities and consideration of DoD cloud services for achieving efficiencies, improved mission effectiveness, and strengthening our security posture. Track JIE definitions and architecture and develop plans for building, participating in, or migrating to appropriate JIE architecture.</p> <p><b>FY 2016 Plans:</b>                      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. As well, continued refinement of the U.S. Army Information Technology Agency desktop as a service, Application Virtualization (S) and (U), Cross Domain Services, 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.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	2.926	4.409	2.978

**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 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0902298J / <i>Management Headquarters</i>	<b>Project (Number/Name)</b> P001 / <i>Joint Staff Information Network (JSIN)</i>

(5) Reduce cost of Joint Staff controlled IT-services by subscribing to locally hosted IT services providers (Information Technology Agency (ITA) - tier 1, tier 2, etc).

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 The Joint Staff** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0902298J / Management Headquarters	<b>Project (Number/Name)</b> P001 / Joint Staff Information Network (JSIN)
--	---	---

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Contract Support	MIPR	SPAWAR : Washington, DC	0.969	0.390		-		-		-		-	-	-	-
<b>Subtotal</b>			0.969	0.390		-		-		-		-	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Contract Support	MIPR	SPAWAR : Washington, DC	8.716	2.536		4.409		2.978		-		2.978	-	-	-
<b>Subtotal</b>			8.716	2.536		4.409		2.978		-		2.978	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	9.685	2.926	4.409	2.978	-	2.978	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 The Joint Staff</b>		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0902298J / <i>Management Headquarters</i>	<b>Project (Number/Name)</b> P001 / <i>Joint Staff Information Network (JSIN)</i>

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

<b>Joint Staff Information Network (JSIN)</b>	
Joint Staff Information Network (JSIN)	██████████



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 The Joint Staff		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0902298J / <i>Management Headquarters</i>	<b>Project (Number/Name)</b> P001 / <i>Joint Staff Information Network (JSIN)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Joint Staff Information Network (JSIN)</i></b>				
Joint Staff Information Network (JSIN)	1	2016	4	2016

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**United States Special Operations Command**

*Defense Wide Justification Book Volume 5 of 5*

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

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United States Special Operations Command • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	368,662	483,801	11,200	495,001	538,445		538,445
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

26 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-----							
Applied Research	27,560	36,750		36,750	37,517		37,517
Advanced Technology Development	44,496	51,622		51,622	57,741		57,741
Operational System Development	296,606	395,429	11,200	406,629	443,187		443,187
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445
Summary Recap of FYDP Programs							
-----							
Intelligence and Communications	20,986	21,080		21,080	70,362		70,362
Special Operations Forces	347,676	462,721	11,200	473,921	468,083		468,083
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445



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Defense-Wide  
 FY 2016 President's Budget  
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26 Jan 2015

Summary Recap of Budget Activities -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
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Advanced Technology Development	44,496	51,622		51,622	57,741		57,741
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Defense-Wide  
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26 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
U.S., Special Operations Command	368,662	483,801	11,200	495,001	538,445		538,445
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445

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Defense-Wide  
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Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
23	1160401BB	SOF Technology Development	02	27,560	36,750		36,750	37,517		37,517	U
		Applied Research		27,560	36,750		36,750	37,517		37,517	
70	1160402BB	SOF Advanced Technology Development	03	44,496	51,622		51,622	57,741		57,741	U
		Advanced Technology Development		44,496	51,622		51,622	57,741		57,741	
206	0304210BB	Special Applications for Contingencies	07	15,150	15,794		15,794	65,060		65,060	U
218	0305208BB	Distributed Common Ground/Surface Systems	07	5,195	5,286		5,286	5,302		5,302	U
223	0305219BB	MQ-1 Predator A UAV	07	641							U
237	1105219BB	MQ-9 UAV	07	13,272	9,702	5,200	14,902	18,151		18,151	U
238	1105232BB	RQ-11 UAV	07		259		259	758		758	U
239	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,446							U
240	1160403BB	Aviation Systems	07	131,119	158,733		158,733	173,934		173,934	U
241	1160405BB	Intelligence Systems Development	07	7,705	9,490		9,490	6,866		6,866	U
242	1160408BB	Operational Enhancements	07	42,492	75,253	6,000	81,253	63,008		63,008	U
243	1160431BB	Warrior Systems	07	15,692	20,573		20,573	25,342		25,342	U
244	1160432BB	Special Programs	07	7,185	20,908		20,908	3,401		3,401	U
245	1160480BB	SOF Tactical Vehicles	07	2,135	3,672		3,672	3,212		3,212	U
246	1160483BB	Maritime Systems	07	28,724	56,746		56,746	63,597		63,597	U
247	1160489BB	Global Video Surveillance Activities	07	3,304	3,788		3,788	3,933		3,933	U

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
248	1160490BB	Operational Enhancements Intelligence	07	13,546	15,225		15,225	10,623		10,623	U
		Operational System Development		296,606	395,429	11,200	406,629	443,187		443,187	
Total Research, Development, Test & Eval, DW				368,662	483,801	11,200	495,001	538,445		538,445	

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U.S., Special Operations Command  
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Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Element Number	Program Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
23	1160401BB	SOF Technology Development	02	27,560	36,750		36,750	37,517		37,517	U
		Applied Research		27,560	36,750		36,750	37,517		37,517	
70	1160402BB	SOF Advanced Technology Development	03	44,496	51,622		51,622	57,741		57,741	U
		Advanced Technology Development		44,496	51,622		51,622	57,741		57,741	
206	0304210BB	Special Applications for Contingencies	07	15,150	15,794		15,794	65,060		65,060	U
218	0305208BB	Distributed Common Ground/Surface Systems	07	5,195	5,286		5,286	5,302		5,302	U
223	0305219BB	MQ-1 Predator A UAV	07	641							U
237	1105219BB	MQ-9 UAV	07	13,272	9,702	5,200	14,902	18,151		18,151	U
238	1105232BB	RQ-11 UAV	07		259		259	758		758	U
239	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,446							U
240	1160403BB	Aviation Systems	07	131,119	158,733		158,733	173,934		173,934	U
241	1160405BB	Intelligence Systems Development	07	7,705	9,490		9,490	6,866		6,866	U
242	1160408BB	Operational Enhancements	07	42,492	75,253	6,000	81,253	63,008		63,008	U
243	1160431BB	Warrior Systems	07	15,692	20,573		20,573	25,342		25,342	U
244	1160432BB	Special Programs	07	7,185	20,908		20,908	3,401		3,401	U
245	1160480BB	SOF Tactical Vehicles	07	2,135	3,672		3,672	3,212		3,212	U
246	1160483BB	Maritime Systems	07	28,724	56,746		56,746	63,597		63,597	U
247	1160489BB	Global Video Surveillance Activities	07	3,304	3,788		3,788	3,933		3,933	U
248	1160490BB	Operational Enhancements Intelligence	07	13,546	15,225		15,225	10,623		10,623	U

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U.S., Special Operations Command  
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 (Dollars in Thousands)

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
		Operational System Development		296,606	395,429	11,200	406,629	443,187		443,187	
Total U.S., Special Operations Command				368,662	483,801	11,200	495,001	538,445		538,445	

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*Budget Activity 07: Operational Systems Development*  
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237	07	1105219BB	MQ-9 Unmanned Aerial Vehicle (UAV).....	Volume 5 - 829
238	07	1105232BB	RQ-11 UAV.....	Volume 5 - 837
239	07	1160279BB	Small Business Innovative Research.....	Volume 5 - 845
240	07	1160403BB	Aviation Systems.....	Volume 5 - 855
241	07	1160405BB	Intelligence Systems Development.....	Volume 5 - 893
242	07	1160408BB	Operational Enhancements.....	Volume 5 - 905
243	07	1160431BB	Warrior Systems.....	Volume 5 - 907
244	07	1160432BB	Special Programs.....	Volume 5 - 961
245	07	1160480BB	SOF Tactical Vehicles.....	Volume 5 - 967
246	07	1160483BB	Maritime Systems.....	Volume 5 - 975
247	07	1160489BB	Global Video Surveillance Activities.....	Volume 5 - 993
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Intelligence Systems Development	1160405BB	241	07.....	Volume 5 - 893
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MQ-9 Unmanned Aerial Vehicle (UAV)	1105219BB	237	07.....	Volume 5 - 829
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SOF Advanced Technology Development	1160402BB	70	03.....	Volume 5 - 795
SOF Tactical Vehicles	1160480BB	245	07.....	Volume 5 - 967
SOF Technology Development	1160401BB	23	02.....	Volume 5 - 789
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## *ORGANIZATIONS*

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1 SOW	1st Special Operations Wing
160th SOAR	160th Special Operations Aviation Regiment
AFSOC	Air Force Special Operations Command
ARSOA	Army Special Operations Aviation
BGAD	Blue Grass Army Depot
CERDEC	Communications-Electronics Research, Development and Engineering Center
CSO	Center for Special Operations
DARPA	Defense Advanced Research Projects Agency
DTRA	Defense Threat Reduction Agency
FDA	Food and Drug Administration
JSOAC	Joint Special Operations Aviation Component
MARSOC	Marine Special Operations Command
NATO	North Atlantic Treaty Organization
NAVAIR	Naval Aviation Systems
NAVSCIATTS	Naval Small Craft Instructor and Technical Training School
NAVSPECWARCOM	Naval Special Warfare Command
NSA	National Security Agency
NSWC	Naval Special Warfare Command
PMA-275	V-22 Joint Program Office
SOFSA	Special Operations Forces Support Facility
TAPO	Technology Applications Program Office
TSOC	Theater Special Operations Command
USAF	United States Air Force
USASOC	United States Army Special Operations Command
USSOCOM	United States Special Operations Command

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## ACRONYMS

<b>Acronym</b>	<b>Full Naming Convention</b>
AAR	After Action Review
ACT	Aft Cabin Trainer
ADS-B	Automatic Dependent Surveillance-Broadcast
AECV	All Environment Capable Variant
AOBPS	Aircraft Occupant Ballistic Protection System
AFSB	Afloat Forward Staging Base
AFSOC	Air Force Special Operations Command
ALGL	Advanced Lightweight Grenade Launcher
ANC	Active Noise Cancellation
AoA	Analysis of Alternatives
APAS	Active Parallet Actuator System
ARSOA	Army Special Operations Aviation
ASE	Aircraft Survivability Equipment
ASOMS	Advanced Special Operations Management System
ATD	Advanced Technology Demonstration
ATD/TB	AC-130U Gunship Aircrew Training Devices/Testbed
ATPIALS	Advanced Tactical Precision Illuminator Aiming Laser System
ATV	All Terrain Vehicle
AvFID	Aviation Foreign Internal Defense
BFT	Blue Force Tracking
BGAD	Blue Grass Army Depot
BGAN	Broadband Global Area Network
BMC	Battle Management Center
C2	Command and Control
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computer
C4I	Command, Control, Communications, Computers, and Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
C4IAS	Command, Control, Communications, Computers, and Intelligence Automation System
CAAP	Common Avionics Architecture for Penetration
CAAS	Common Avionics Architecture Systems
CAPS	Counter-Proliferation Analysis and Planning System
CAR	Combat Assault Rifle
CAS	Close Air Support
CASEVAC	Casualty Evacuation
CCFLIR	Combatant Craft Forward Looking Infrared Radar
CCH	Combatant Craft - Heavy

## ACRONYMS

CCM	Combatant Craft - Medium
CDAS	Cognitive Decision Aiding System
CDU	Control Display Units
CERP	Capital Equipment Replacement Plan
CESE	Civil Engineering Support Equipment
CFE	Contractor Furnished Equipment
CIMDPS	Civil Information Management Data Processing System
CMNS	Combat Mission Needs Statement
CNVD	Clip-On Night Vision Device
COTI	Clip-On Thermal Imagers
COTS	Commercial-Off-The-Shelf
CP	Counter-Proliferation
CPD	Capabilities Production Document
DAFCS	Digital Advanced Flight Control System
DCGS	Data Common Ground/Surface System
DCS	Dry Combat Submersible
DDP	Detachment Deployment Packages
DDS	Dry Deck Shelter
DF	Direction Finding
DIA	Defense Intelligence Agency
DMO/DMT/DMR	Distributed Mission Operations/Distributed Mission Training/Distributed Mission Rehearsal
DMTRS	Distributed Mission Training and Rehearsal System
DoD	Department of Defense
DT&E	Development Test and Evaluation
DVE	Degraded Visual Environment
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
EOQ	Economic Order Quantity
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EW	Electronic Warfare
FAA	Federal Aviation Administration
FABS	Fly-Away Broadcast System
FCD	Field Computing Devices

## ACRONYMS

FFT	Friendly Force Trackers
FLIR	Forward Looking Infrared Radar
FMBS	Family of Muzzle Brake Suppressors
FMV	Full Motion Video
FMV VDH-L	Full Motion Video Distribution Hub-Light
FoS	Family of Systems
FSOV	Family of SOF Vehicles
FSWS	Family of Sniper Weapon System
FUT	Fuselage Trainer
FW	Fixed Wing
FY	Fiscal Year
GATM	Global Air Traffic Management
GEO	Geological
GFE	Government Furnished Equipment
GIG	Global Information Grid
GMV	Ground Mobility Vehicles
GOTS	Government-Off-the-Shelf
GPPU	General Purpose Processing Units
GPS	Global Positioning System
GSK	Ground Signal Intelligence Kit
GWOT	Global War on Terrorism
HD	High Definition
HF	High Frequency
HFIS	Hostile Fire Indicator System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held Imager
HLM	Hand-held Laser Marker
HPRT	High Power Remote Transmitters
HSAC	High Speed Assault Craft
IED	Improvised Explosive Devices
IM	Insensitive Munitions
INOD	Improved Night/Day Observation/Fire Control Device
IOC	Initial Operational Capability
IOT&E	Initial Operational Test & Evaluation
IR	Infrared
IRCM	Infrared Countermeasures
ISP	Integrated Survey Plan
ISR	Intelligence Surveillance and Reconnaissance

## ACRONYMS

ISR&T	Intelligence, Surveillance, Reconnaissance, and Targeting
IT	Information Technology
JBS	Joint Base Station
JCTD	Joint Concept Technology Demonstration
JNTC	Joint National Training Center
JOS	Joint Operational Stocks
JSOTF	Joint Special Operations Task Force
JTCITS	Joint Tactical C4I Information Transceiver System
JTF	Joint Task Force
JTWS	Joint Threat Warning System
LAM	Laser Acquisition Marker
LAW	Light Assault Weapon
LFT&E	Live Fire Test and Evaluation
LMG	Lightweight Machine Gun
LOS	Line of Sight
LPI/LPD	Low Probability of Intercept/Low Probability of Detection
LRBS	Long Range Broadcast System
LRIP	Low Rate Initial Production
LRU	Line Replaceable Unit
LTATV	Lightweight Tactical All Terrain Vehicle
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MALET	Medium Altitude Long Endurance Tactical
MARSOC	U.S. Marine Special Operations Command
MCADS	Maritime Craft Air Delivery System
MDAP	Major Defense Acquisition Program
MEDVAC	Medical Evacuation
MELB	Mission Enhancement Little Bird
MFD	Multi-Function Display
MFP-11	Major Force Program-11
MICH	Modular Integrated Communications Helmet
MIP	Military Intelligence Program
MISO	Military Information Support Operations
MISOB	Military Information Support Operations Broadcast
MK V	Mark V Combatant Craft
MLE	Military Liaison Element
MPC	Media Production Center
MPK	Mission Planning Kits
MQ-1	Predator Unmanned Vehicle



## ACRONYMS

MQ-9	Reaper Unmanned Vehicle
MRAP	Mine Resistant Ambush Protected
MS	Milestone
MSSEP	Mobile SOF Strategic Entry Points
MTPS	Mission Training and Preparation System
MWS	Missile Warning System
NAVAIR	Naval Aviation Systems Command
NAVSEA	Naval Systems Engineering Command
NDI	Non-Developmental Item
NGA	National Geo-Spatial Intelligence Agency
NGFLIR	Next Generation Forward Looking Infrared Radar
NGLS	Next Generation Loudspeaker Systems
NIC	National Intelligence Community
NIPR	Non-Classified Internet Protocol
NRE	Non-Recurring Engineering
NSAV	Non-Standard Aviation
NSCV	Non-Standard Commercial Vehicle
NSM	Non-Standard Materiel
NSSS	National Systems Support to SOF
NSW	Naval Special Warfare
NSWC	Naval Special Warfare Command
NVD	Night Vision Devices
OCO	Overseas Contingency Operations
OFFP	Operational Flight Program
OSD	Office of the Secretary of Defense
OT&E	Operational Test and Evaluation
OUSD(I)	Office of the Undersecretary for Defense, Intelligence
P3I	Pre-Planned Product Improvement
PE	Program Element
PED	Processing, Exploitation, and Dissemination
PEO	Program Executive Office
PGL	Precision Geo Location
PGM	Precision Guided Munitions
PN	Partner Nation
PSP	Precision Strike Package
PSR	Precision Sniper Rifle
QL-CBA	Quick-Look Capabilities-Based Assessment
QoS	Quality of Service

## ACRONYMS

RC-IED	Radio Counter-Improvised Explosive Device
RDT&E	Research, Development, Test, and Evaluation
REITS	Rapid Exploitation of Innovative Technologies
RF	Radio Frequency
RFCM	Radio Frequency Countermeasures
RIB	Rigid Inflatable Boat
RIS	Radio Interface System
RIS	Rail Interface Systems
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
SAFC	Special Applications for Contingencies
SAFEAIR	Safe Aircraft Recovery
SAT	Simplified Acquisition Threshold
SATCOM	Satellite Communications
SAW	Small Arms and Weapons
SBIR	Small Business Innovative Research
SBUD	Simulator Block Updates
SDN	SOF Deployable Node
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SFA	Security Forces Assistance
SIE	SOF Information Environment
SIGINT	Signals Intelligence
SIPR	Classified Internet Protocol
SIRFC	Suite of Integrated Radar Frequency Countermeasures
SKR	Silent Knight Radar
SO	Special Operations
SOAR(A)	Special Operations Aviation Regiment (Airborne)
SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOFSA	SOF Forces Support Activity
SOMPE	Special Operations Mission Planning Environment
SOPGM	Standoff Precision Guided Munitions

## ACRONYMS

SOTVS	Special Operations Tactical Video System
SOW	Special Operations Wing
SRTV	Secure Real-Time Video
SPCOM	Special Communications Field Segment - Enterprise
SPEAR	SOF Personal Equipment Advanced Requirements
SSE	Sensitive Site Exploitation
SSR	Sniper Support Rifle
STC	SOF Tactical Communications
STUASLO	Small Tactical Unmanned Aerial Systems
SUAS	Small Unmanned Aircraft System
SWALIS	Special Warfare Automated Logistics Information System
SWCS	Shallow Water Combat Submersible
TACLAN	Tactical Local Area Network
TAS	Threat Awareness System
TCCC	Tactical Combat Casualty Care
TF/TA	Terrain Following/Terrain Avoidance
TSOC	Theater Special Operations Command
TT	Team Transportable
TTP	Tactics, Techniques and Procedures
UAV	Unmanned Aerial Vehicle
UCI	Undersea Clandestine Insertion
USASOC	U.S. Army Special Operations Command
USG	U.S. Government
USSOCOM	U. S. Special Operations Command
STOL	Short Take-Off and Landing
VAS-BM	Visual Augmentation-Binocular-Monocular
VASWA	Visual Augmentation System-Weapons Accessories
VBL	Visible Bright Light
VTC	Video Teleconferencing
WB SOTM	Wide Band SATCOM On-The-Move
WMD	Weapons of Mass Destruction
WPNAC	Weapons Accessories
WST	Weapons System Trainer

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>					<b>R-1 Program Element (Number/Name)</b>							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 2: Applied Research</i>					PE 1160401BB / <i>SOF Technology Development</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	Continuing	Continuing
S100: <i>SOF Technology Development</i>	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	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 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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	28.307	39.750	37.789	-	37.789
Current President's Budget	27.561	36.750	37.517	-	37.517
Total Adjustments	-0.746	-3.000	-0.272	-	-0.272
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.746	-			
• SBIR/STTR Transfer	-	-			
• Other	-	-	-0.272	-	-0.272

**Change Summary Explanation**

Funding:

FY 2014: Decrease of \$0.746 million is due to a reprogramming to higher command priorities.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of \$3.000 million to the Special Operations Forces Technology Development program.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 2: Applied Research</i>	PE 1160401BB / <i>SOF Technology Development</i>

FY 2016: Decrease of \$0.272 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 2					<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>				<b>Project (Number/Name)</b> S100 / <i>SOF Technology Development</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>S100: SOF Technology Development</i>	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	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 allows 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. Requirements in these areas may be advertised to industry and government research and development agencies via broad area 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 S&T 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SOF Technology Development	12.282	19.624	18.780
<b>FY 2014 Accomplishments:</b> Continued ongoing technology development sub-projects in areas such as, but not limited to: reduced signature technologies; advanced lightweight armor and materials; advanced energetics for improved terminal ballistics, and advanced laser technologies. Advanced technologies for combat medical equipment and tactics; sensor and processing improvements; improve interfaces and displays; and secure communications. Continued pursuit of methods to reduce operator load and provides 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.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>	<b>Project (Number/Name)</b> S100 / <i>SOF Technology Development</i>

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

	FY 2014	FY 2015	FY 2016
<p>Continue ongoing technology development sub-projects in areas such as, but not limited to: reduce signature technologies; advance lightweight armor and materials; long duration small form factor power supplies; and alternative fuel power systems. 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.</p> <p><b>FY 2016 Plans:</b> 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, reduced signature technologies, high data-rate throughput, and advanced 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.</p>			
<p><b>Title:</b> Tagging, Tracking, and Locating Technologies (TTL)</p> <p><b>FY 2014 Accomplishments:</b> 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.</p> <p><b>FY 2015 Plans:</b> 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.</p> <p><b>FY 2016 Plans:</b></p>	14.165	14.896	14.950



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 2	<b>R-1 Program Element (Number/Name)</b> PE 1160401BB / <i>SOF Technology Development</i>	<b>Project (Number/Name)</b> S100 / <i>SOF Technology Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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.			
<b>Title:</b> Classified	1.114	2.230	3.787
<b>FY 2014 Accomplishments:</b> Details provided under separate cover.			
<b>FY 2015 Plans:</b> Details provided under separate cover.			
<b>FY 2016 Plans:</b> Details provided under separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>	27.561	36.750	37.517

**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 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	1,045.274	44.496	51.622	57.741	-	57.741	61.333	71.587	73.666	76.042	Continuing	Continuing
S200: <i>Advanced Technology Development</i>	1,045.274	38.736	39.515	45.137	-	45.137	48.459	52.785	54.514	56.506	Continuing	Continuing
SF101: <i>Engineering Analysis</i>	0.000	0.847	6.978	7.457	-	7.457	7.624	13.444	13.697	13.972	Continuing	Continuing
S225: <i>Information and Broadcast Systems Adv Tech</i>	0.000	4.913	5.129	5.147	-	5.147	5.250	5.358	5.455	5.564	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. Advanced Technology Development also addresses 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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	45.306	57.622	56.177	-	56.177
Current President's Budget	44.496	51.622	57.741	-	57.741
Total Adjustments	-0.810	-6.000	1.564	-	1.564
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.810	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	1.564	-	1.564

**Change Summary Explanation**

Funding:

FY 2014: Net decrease of \$0.810 million is due to an increase for rotary wing low visibility flare development (\$0.066 million) and a reprogramming to higher command priorities (-\$0.876 million).

FY 2015: This program element was reduced due to a Congressional Directed Reduction of \$-6.000 million to the Engineering Analysis project.

FY 2016: Net increase of \$1.564 million supports classified rapid reaction technology gap capabilities (\$2.000 million) and a decrease of \$0.436 million due to a Departmental economic assumption.

Schedule: None.

Technical: None.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development				<b>Project (Number/Name)</b> S200 / Advanced Technology Development			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S200: <i>Advanced Technology Development</i>	1,045.274	38.736	39.515	45.137	-	45.137	48.459	52.785	54.514	56.506	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.
- 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).
- Signature Management Technology Demonstrator (details provided under separate cover).

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SOF Special Technology Sub-Project	13.437	20.018	23.570
<b>FY 2014 Accomplishments:</b> Continued to develop and insert technology into existing programs. Technologies included reduced signature profiles, improved weapons, lightweight armor and materials, conformable antenna technology, area denial applications, first-pass lethality technology, human performance optimization analysis, and technologies that reduce the load of the operator. Initiated development of technologies supporting undersea mobility; developed ground mobility solutions for improved endurance and survivability; and rotary wing low visibility flares. Evaluated and developed sensors across the electromagnetic spectrum to meet			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> S200 / <i>Advanced Technology Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
operational requirements. Based upon agreed technology maturity metrics, transferred successful projects into programs of record, and conducted field experimentations at various venues to facilitate technology insertion.  <b>FY 2015 Plans:</b> 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. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continue the integration of critical technologies focused on providing the dismantled special operator leap ahead capabilities via innovative collaborative processes. Begin initial effort for field prototype system incorporating technologies likely to transition to fielded systems.  <b>FY 2016 Plans:</b> 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. Based upon agreed technology maturity metrics, transfers successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continues the integration of critical technologies focused on providing the dismantled special operator leap-ahead capabilities via innovative collaborative processes. Begins initial effort for field prototype system incorporating technologies likely to transition to fielded systems.			
<b>Title:</b> Tagging, Tracking, and Locating Technologies (TTL) Sub-Project  <b>FY 2014 Accomplishments:</b> 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.  <b>FY 2015 Plans:</b>	12.721	13.852	15.940

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> S200 / <i>Advanced Technology Development</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>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.</p> <p><b>FY 2016 Plans:</b> 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.</p>			
<p><b>Title:</b> National to Theater Transition</p> <p><b>FY 2014 Accomplishments:</b> Conducted additional testing and evaluation required on various equipment items transitioned to the SOF Theater Forces. Several projects involving Scalable Effects Weapons, Maritime Platform Enhancements, and Operator Protection systems were successfully transitioned to Theater SOF Forces using these funds. In FY 2015 this program moved to the Engineering Analysis RDT&amp;E project SF101.</p>	1.613	-	-
<p><b>Title:</b> Classified Sub-Project</p> <p><b>FY 2014 Accomplishments:</b> Details provided under separate cover.</p> <p><b>FY 2015 Plans:</b> Details provided under separate cover.</p> <p><b>FY 2016 Plans:</b> Details provided under separate cover.</p>	1.043	5.645	5.627
<p><b>Title:</b> Signature Management Technology Demonstrator</p> <p><b>FY 2014 Accomplishments:</b> Details provided under separate cover.</p>	9.547	-	-
<p><b>Title:</b> High Speed Container Delivery System</p> <p><b>FY 2014 Accomplishments:</b> Completed flight testing and certification of High Speed Container Delivery System for use on MC-130J aircraft.</p>	0.375	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	38.736	39.515	45.137

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> S200 / <i>Advanced Technology Development</i>

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>				<b>Project (Number/Name)</b> SF101 / <i>Engineering Analysis</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SF101: <i>Engineering Analysis</i>	-	0.847	6.978	7.457	-	7.457	7.624	13.444	13.697	13.972	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 Unmanned Aerial System (UAS) payloads; 2) air-to-ground interoperability; 3) mission suite architectures; 4) common sensor suites; 5) low-cost, high-load-out Special Operations Precision Guided Munitions (SOPGMs) and air-launched UAS; 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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Platform Engineering Analysis	0.847	4.390	4.865
<b>FY 2014 Accomplishments:</b> Developed and adapted the government owned 3D Geographic Information Systems software to augment current full motion video (FMV) displays with geographic information and real-time intelligence overlays. Initial work showed the feasibility of its adaptation to UAVs. Developed SOF-unique fixed wing enterprise architectures of the current fleet and equipment. These Phase 1 activities culminated in the delivery of a SOF-unique fixed wing Operational View-1 architecture overview. Developed a quieter propeller for UAVs. Baselined existing propeller noise and began testing of quieter propellers.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> SF101 / <i>Engineering Analysis</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>For small UAS 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 UAS. 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 our manned Intelligence, Surveillance, and Reconnaissance (ISR) fleet and our Group IV/V UAS. Identify low-cost and high load-out SOPGM and air-launched UAS 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, Light Detection and Ranging (LIDAR), Signals Intelligence (SIGINT) and high definition Electro-Optical/Infrared (EO/IR) capabilities.</p> <p><b>FY 2016 Plans:</b> For small UAS 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 UAS. Air-to-ground interoperability efforts identifies 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 UAS. Identifies low-cost and high load-out SOPGM and air-launched UAS 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.</p>			
<p><b>Title:</b> Soldier System Engineering Analysis</p> <p><b>FY 2015 Plans:</b> 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. For eye protection, efforts will 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 display for operability within soldier worn components and subsystems. Assess technology feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assess 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.</p> <p><b>FY 2016 Plans:</b></p>	-	0.500	0.496

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> SF101 / <i>Engineering Analysis</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
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. 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. 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.			
<b>Title:</b> National to Theater Engineering Analysis	-	2.088	2.096
<b>FY 2015 Plans:</b> 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.			
<b>FY 2016 Plans:</b> 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.847	6.978	7.457

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

**Remarks**

**D. Acquisition Strategy**  
N/A

**E. Performance Metrics**  
N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / SOF Advanced Technology Development				<b>Project (Number/Name)</b> S225 / Information and Broadcast Systems Adv Tech			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S225: Information and Broadcast Systems Adv Tech</i>	-	4.913	5.129	5.147	-	5.147	5.250	5.358	5.455	5.564	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. This initiative will initiate and continue development of emergent 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Broadcast and Dissemination Modernization	4.913	5.129	5.147
<b>FY 2014 Accomplishments:</b> Continued to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 3	<b>R-1 Program Element (Number/Name)</b> PE 1160402BB / <i>SOF Advanced Technology Development</i>	<b>Project (Number/Name)</b> S225 / <i>Information and Broadcast Systems Adv Tech</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Continue to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
<b><i>FY 2016 Plans:</i></b> Continues to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.913	5.129	5.147

**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 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0304210BB / <i>Special Applications for Contingencies</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing
9999: <i>Special Applications for Contingencies</i>	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing

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

Beginning in FY2015, this program element is part of the Military Intelligence Program. This program element 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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	15.150	19.294	19.601	-	19.601
Current President's Budget	15.150	15.794	65.060	-	65.060
Total Adjustments	-	-3.500	45.459	-	45.459
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other	-	-	45.459	-	45.459

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of \$3.500 million to SAFC program.

FY 2016: Net increase of \$45.459 is due to an increase to fund development of a classified project (\$45.600 million) and a Departmental economic assumption decrease (-\$0.141 million). Classified project details can be provided under separate cover.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 0304210BB / <i>Special Applications for Contingencies</i>

Schedule: None.

Technical: None.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0304210BB / <i>Special Applications for Contingencies</i>				<b>Project (Number/Name)</b> 9999 / <i>Special Applications for Contingencies</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9999: <i>Special Applications for Contingencies</i>	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Beginning in FY 2015, this project is part of the Military Intelligence Program. This 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SAFC	15.150	15.794	19.460
<b>FY 2014 Accomplishments:</b> Continued development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continued to evaluate unique sensor technologies, persistent stare and quick reaction systems.			
<b>FY 2015 Plans:</b> Continue development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continue to evaluate unique sensor technologies, persistent stare and quick reaction systems.			
<b>FY 2016 Plans:</b> 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.			
<b>Title:</b> Classified Program	-	-	45.600
<b>FY 2016 Plans:</b> This program is an FY 2016 new start. Additional details can be provided under separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>	15.150	15.794	65.060

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0304210BB / <i>Special Applications for Contingencies</i>	<b>Project (Number/Name)</b> 9999 / <i>Special Applications for Contingencies</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>Small Tactical Unmanned Aerial Systems</i>	8.166	1.500	1.514	-	1.514	1.537	1.560	1.590	1.621	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



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0304210BB / <i>Special Applications for Contingencies</i>	<b>Project (Number/Name)</b> 9999 / <i>Special Applications for Contingencies</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities Development</i></b>	
ISR Technology Integration & Testing	
ISR Prototype Demonstrations	
ISR Combat Evaluation	
<b><i>Classified Program</i></b>	
Classified Program Development	
Classified Program Demonstration	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0304210BB / <i>Special Applications for Contingencies</i>	<b>Project (Number/Name)</b> 9999 / <i>Special Applications for Contingencies</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities Development</i></b>				
ISR Technology Integration & Testing	1	2015	4	2020
ISR Prototype Demonstrations	1	2015	4	2020
ISR Combat Evaluation	1	2015	4	2020
<b><i>Classified Program</i></b>				
Classified Program Development	2	2016	2	2018
Classified Program Demonstration	4	2016	2	2018

**Note**

Additional details can be provided under separate cover.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / Distributed Common Ground/Surface Systems
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	Continuing	Continuing
S400A: Distributed Common Ground/Surface Systems	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	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 the Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF). The mission tailored infrastructure interconnects the warfighter and sensor data to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services within SOF and between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance (ISR) sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the greatest degree possible.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	5.195	5.286	5.340	-	5.340
Current President's Budget	5.195	5.286	5.302	-	5.302
Total Adjustments	-	-	-0.038	-	-0.038
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Departmental Economic Assumption	-	-	-0.038	-	-0.038

**Change Summary Explanation**

Funding:

FY 2014: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>

FY 2015: None.

FY 2016: Decrease of -\$0.038 million is due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>				<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S400A: <i>Distributed Common Ground/Surface Systems</i>	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project is part of the Military intelligence Program (MIP) that provides for the identification, development, and testing of the Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF). The mission tailored infrastructure interconnects the warfighter and sensor data to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services within SOF and between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance (ISR) sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the greatest degree possible.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> DCGS	5.195	5.286	5.302
<b>FY 2014 Accomplishments:</b> Integrated emerging technologies and capabilities for all source information fusion and initial integration of technology to enable disconnected operations into the DCGS-SOF baseline, continued test and evaluation of these technologies, established a standing user working group to assist in the design and development of a new User Interface (UI). Began initial transition of legacy capability into DCGS-SOF baseline, participated in SOCOM's Trident Spectre demonstration, NATO Unified Vision 14, OSDI's Enterprise Challenge and conducted DCG-SOF limited objective events.			
<b>FY 2015 Plans:</b> Continue to integrate emerging technologies and capabilities for all source information fusion, continue integration of technology to enable disconnected operations into the DCGS-SOF baseline, continue UI functionality and capability upgrades, continue test and evaluation of these technologies, continue transition effort of legacy capability, continue DCGS-SOF limited objective events, and participate in Trident Spectre and Enterprise Challenge demonstrations.			
<b>FY 2016 Plans:</b> Continues to integrate emerging technologies and capabilities for all source information fusion, continues integration of technology to enable disconnected operations into the DCGS-SOF baseline, continues test and evaluation of these technologies, final			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
transition effort of legacy capability, continues DCGS-SOF limited objective events, Trident Sectre participation, Unified Vision 16, and Enterprise Challenge demonstrations.			
<b>Accomplishments/Planned Programs Subtotals</b>	5.195	5.286	5.302

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC1: <i>Distributed Common Ground/Surface System</i>	14.906	17.323	14.964	-	14.964	17.491	13.094	12.775	13.139	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

- DCGS-SOF will partner within DOD and with other government agencies to integrate mature technologies into the SOF information enterprise and enable more agile access to and sharing of data and services to meet SOF-peculiar documented requirements. The technology will allow for seamless integration 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 evaluated and scheduled by engineering. 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 requirement priorities change based on the DRWG, the ETI and version capabilities identified may change.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Distributed Common Ground System (DCGS) Capabilities Modernization	Various	Various : Various	11.433	2.050	Jan 2014	0.750	Jan 2015	0.728	Jan 2016	-		0.728	Continuing	Continuing	-
Development and Integration	C/FFP	SITEC : Various	0.690	1.085	Dec 2013	1.959	Dec 2014	1.995	Mar 2016	-		1.995	Continuing	Continuing	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.547	0.280	Oct 2013	0.278	Oct 2014	0.280	Oct 2015	-		0.280	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	-	1.788	-
<b>Subtotal</b>			14.458	3.415		2.987		3.003		-		3.003	-	-	-

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCGS Support	C/FFP	SITEC : Various	0.914	0.350	Dec 2013	0.883	Dec 2014	0.900	Mar 2016	-		0.900	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	-	0.576	-
<b>Subtotal</b>			1.490	0.350		0.883		0.900		-		0.900	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCGS Test and Evaluation	MIPR	SPAWAR : Charleston, SC	1.210	0.230	Oct 2013	0.234	Oct 2014	0.239	Oct 2015	-		0.239	Continuing	Continuing	-
DCGS Independent Verification and Validation	MIPR	MITRE : Bedford, MA	1.702	0.280	Oct 2013	0.278	Oct 2014	0.280	Oct 2015	-		0.280	Continuing	Continuing	-
Interoperability Support	MIPR	JITC : Ft Huachuca, AZ	0.712	0.320	Jan 2014	0.177	Jan 2015	0.180	Jan 2016	-		0.180	Continuing	Continuing	-
Interoperability Testing	C/FFP	SITEC : Various	1.480	0.600	Dec 2013	0.727	Dec 2014	0.700	Mar 2016	-		0.700	Continuing	Continuing	-



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

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

DCGS v4.X OT (Redesigned User Interface, DIB 4.X, Distributed Data Framework, Enterprise Messaging, SIGINT Data Integration, Combat Assessment Disconnect/ Mobile Capability)	[REDACTED]																											
DCGS v5.X OT (User ineterface enhancements, Extend enterprise capability to the SSEP, Production Build For Disconnect/ Mobile, Additional Data Sources, Services, Analytical Tools)	[REDACTED]																											
DCGS v6.X OT (User interface enhancements, All Source Information Fusion enhancements)	[REDACTED]																											
Trident Spectre, DCGS Limited Objective Events & Enterprise Challenge - FY 2014- FT 2020	[REDACTED]																											
Unified Vision - FY 2016/FY 2018/FY 2020	[REDACTED]																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305208BB / <i>Distributed Common Ground/Surface Systems</i>	<b>Project (Number/Name)</b> S400A / <i>Distributed Common Ground/Surface Systems</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
DCGS v4.X OT (Redesigned User Interface, DIB 4.X, Distributed Data Framework, Enterprise Messaging, SIGINT Data Integration, Combat Assessment Disconnect/Mobile Capability)	4	2014	4	2016
DCGS v5.X OT (User ineterface enhancements, Extend enterprise capability to the SSEP, Production Build For Disconnect/Mobile, Additional Data Sources, Services, Analytical Tools)	4	2016	4	2018
DCGS v6.X OT (User interface enhancements, All Source Information Fusion enhancements)	4	2018	4	2020
Trident Spectre, DCGS Limited Objective Events & Enterprise Challenge - FY 2014- FT 2020	1	2014	4	2020
Unified Vision - FY 2016/FY 2018/FY 2020	1	2016	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305219BB / MQ-1 Unmanned Aerial Vehicle (UAV)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing
S400B: MQ-1 Unmanned Aerial Vehicle (UAV)	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing

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

This program element is part of the Military Intelligence Program. This program element identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits, mission payloads, weapons, and modifications on MQ-1 Unmanned Aerial Vehicles (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 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, Target (ISR&T) Acquisition, and Strike.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	0.641	-	-	-	-
Current President's Budget	0.641	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

Funding:

FY2014: None.

FY2015: None.

FY2016: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 0305219BB / <i>MQ-1 Unmanned Aerial Vehicle (UAV)</i>

Schedule: None.

Technical: None.



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219BB / MQ-1 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S400B / MQ-1 Unmanned Aerial Vehicle (UAV)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S400B: MQ-1 Unmanned Aerial Vehicle (UAV)	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project is part of the military intelligence program. This program element identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, weapons, and modifications on MQ-1 Unmanned Aerial Vehicles (UAVs), ground control stations, and training systems. As the supported combatant command, USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing global operations 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 project addresses the primary areas of Intelligence, Surveillance, Reconnaissance, Target (ISR&T) Acquisition, and Strike.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> MQ-1 UAV	0.641	-	-
<b>FY 2014 Accomplishments:</b> Completed development, testing, and integration of SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-1 UAVs and ground control stations.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.641	-	-

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC/1108MQ1: MQ-1 Unmanned Aerial Vehicle	2.122	-	1.934	-	1.934	2.471	-	-	-	-	6.527

**Remarks**

**D. Acquisition Strategy**

MQ-1 UAV is an evolutionary acquisition program that provides improvements to SOF MQ-1 UAVs, ground control stations, and training systems including mission kits, mission payloads, aircraft weapons integration and modifications to increase the ISR&T Acquisition and Strike capabilities of SOF.

**E. Performance Metrics**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219BB / MQ-1 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S400B / MQ-1 Unmanned Aerial Vehicle (UAV)
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MQ-1 UAVs and Ground Control Stations	C/Various	General Atomics Aeronautical Services : San Diego, CA	26.109	0.481	Mar 2014	-		-		-		-	-	26.590	-
<b>Subtotal</b>			26.109	0.481		-		-		-		-	-	26.590	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MQ-1 UAVs and Ground Control Stations	C/Various	General Atomics Aeronautical Services : San Diego, CA	6.330	0.160	Mar 2014	-		-		-		-	-	6.490	-
<b>Subtotal</b>			6.330	0.160		-		-		-		-	-	6.490	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year	C/Various	Various : Various	0.648	-		-		-		-		-	-	0.648	-
<b>Subtotal</b>			0.648	-		-		-		-		-	-	0.648	-

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			33.087	0.641	-	-	-	-	-	33.728	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219BB / MQ-1 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S400B / MQ-1 Unmanned Aerial Vehicle (UAV)

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>MQ-1 UAVs, Ground Control Stations, and Training Systems</b>																												
Development, Integration and Test																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219BB / MQ-1 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S400B / MQ-1 Unmanned Aerial Vehicle (UAV)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>MQ-1 UAVs, Ground Control Stations, and Training Systems</b>				
Development, Integration and Test	2	2014	4	2015

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	Continuing	Continuing
S851: MQ-9 Unmanned Aerial Vehicle (UAV)	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	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 Unmanned Aerial Vehicles (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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	13.272	9.702	19.203	-	19.203
Current President's Budget	13.272	14.902	18.151	-	18.151
Total Adjustments	-	5.200	-1.052	-	-1.052
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	5.200	-1.052	-	-1.052

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: Increase of \$5.200 million is due to a Congressional add of OCO funding for MQ-9 capability enhancements for SOF including mission kits, mission payloads, and modifications on MQ-9 UAVs, ground control stations and training systems.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1105219BB / <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>

FY 2016: Decrease of \$1.052 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S851: MQ-9 Unmanned Aerial Vehicle (UAV)	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	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 Unmanned Aerial Vehicles (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 ISR&T Acquisition and Strike. This project received OCO funding in FY 2015.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> MQ-9 UAV	13.272	14.902	18.151
<b>FY 2014 Accomplishments:</b> Development, testing, and completed integration of SOF unique mission kits, mission payloads, weapons and modifications on MQ-9 UAVs and ground control stations.			
<b>FY 2015 Plans:</b> Develop, test, and integrate SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems.			
<b>FY 2016 Plans:</b> Develops, tests, and integrates SOF-unique mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, ground control stations, and training systems.			
<b>Accomplishments/Planned Programs Subtotals</b>	13.272	14.902	18.151

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 1108MQ9: MQ-9 Unmanned Aerial Vehicle	12.893	18.593	11.726	-	11.726	10.681	11.752	5.327	5.454	Continuing	Continuing

**Remarks**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>	<b>Project (Number/Name)</b> S851 / <i>MQ-9 Unmanned Aerial Vehicle (UAV)</i>

**D. Acquisition Strategy**

MQ-9 Unmanned Aerial Vehicle (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 ISR&T 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



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MQ-9 UAVs and Ground Control Stations	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	9.954	Jan 2015	7.277	Jun 2015	13.613	Jun 2016	-		13.613	Continuing	Continuing	-
MQ-9 UAVs and Ground Control Stations Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	-		3.900	Jun 2015	-		-		-	-	3.900	-
<b>Subtotal</b>			-	9.954		11.177		13.613		-		13.613	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MQ-9 UAVs and Ground Control Stations	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	14.220	3.318	Jun 2014	2.425	Jun 2015	4.538	Jun 2016	-		4.538	Continuing	Continuing	-
MQ-9 UAVs and Ground Control Stations Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	-		1.300	Jun 2015	-		-		-	-	1.300	-
<b>Subtotal</b>			14.220	3.318		3.725		4.538		-		4.538	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	14.220	13.272	14.902	18.151	-	18.151	-	-	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>MQ-9 UAVs, Ground Control Stations, and Training Systems</b>																												
Development/Integration/Test																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105219BB / MQ-9 Unmanned Aerial Vehicle (UAV)	<b>Project (Number/Name)</b> S851 / MQ-9 Unmanned Aerial Vehicle (UAV)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MQ-9 UAVs, Ground Control Stations, and Training Systems</i></b>				
Development/Integration/Test	1	2014	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1105232BB / RQ-11 UAV
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing
S853: RQ-11 UAV	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing

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

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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	-	0.259	0.263	-	0.263
Current President's Budget	-	0.259	0.758	-	0.758
Total Adjustments	-	-	0.495	-	0.495
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.495	-	0.495

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1105232BB / RQ-11 UAV

FY 2016: Net increase of \$0.495 million is to support the development and testing of Signals Intelligence payloads for the MTUAS (\$0.497 million) and a Departmental economic assumption decrease (-\$0.002 million).

Schedule None.

Technical None.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1105232BB / RQ-11 UAV				<b>Project (Number/Name)</b> S853 / RQ-11 UAV			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S853: RQ-11 UAV	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing
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 (ISR&T) capabilities for SOF.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SUAS	-	0.259	0.261
<b>FY 2015 Plans:</b> 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.			
<b>FY 2016 Plans:</b> Continues to 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.			
<b>Title:</b> MTUAS	-	-	0.497
<b>FY 2016 Plans:</b> This is an FY 2016 new start. Develops, integrates, and tests 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	0.259	0.758

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105232BB / RQ-11 UAV	<b>Project (Number/Name)</b> S853 / RQ-11 UAV
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0809RQ11: RQ-11 Unmanned Aerial Vehicle	0.850	6.397	20.087	-	20.087	17.231	14.305	4.694	4.802	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





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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105232BB / RQ-11 UAV	<b>Project (Number/Name)</b> S853 / RQ-11 UAV
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>SUAS</b>	
Development / Integration / Test	
<b>MTUAS</b>	
Development / Integration / Test	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1105232BB / RQ-11 UAV	<b>Project (Number/Name)</b> S853 / RQ-11 UAV
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>SUAS</b>				
Development / Integration / Test	2	2015	4	2020
<b>MTUAS</b>				
Development / Integration / Test	2	2016	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovative Research</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	162.487	10.446	-	-	-	-	-	-	-	-	Continuing	Continuing
S050: <i>Small Business Innovative Research</i>	162.487	9.147	-	-	-	-	-	-	-	-	Continuing	Continuing
S051: <i>Small Business Technology Transfer</i>	0.000	1.299	-	-	-	-	-	-	-	-	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	10.446	-	-	-	-
Current President's Budget	10.446	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-	-	-	-
• Congressional Directed Reductions	-	-	-	-	-
• Congressional Rescissions	-	-	-	-	-
• Congressional Adds	-	-	-	-	-
• Congressional Directed Transfers	-	-	-	-	-
• Reprogrammings	-	-	-	-	-
• SBIR/STTR Transfer	-	-	-	-	-

**Change Summary Explanation**

Funding:

FY 2014: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160279BB / <i>Small Business Innovative Research</i>

FY 2015: None.

FY 2016: None.

Schedule: None.

Technical: None.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovative Research</i>				<b>Project (Number/Name)</b> S050 / <i>Small Business Innovative Research</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S050: <i>Small Business Innovative Research</i>	162.487	9.147	-	-	-	-	-	-	-	-	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Small Business Innovative Research (SBIR)	9.147	-	-
<b>FY 2014 Accomplishments:</b> Awarded numerous Phase I and Phase II contracts and contract options for SBIR topics: Dual Speed Read Out Integrated Circuit; Advanced Opaque Armor; Abrasion, Laceration and Puncture Protection; and High Performance Marine Diesel.			
<b>Accomplishments/Planned Programs Subtotals</b>	9.147	-	-

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A







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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovative Research</i>	<b>Project (Number/Name)</b> S050 / <i>Small Business Innovative Research</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SBIR Projects</i></b>				
Advanced Opaque Armor	1	2015	4	2015
Dual Speed Read Out IC (ROIC)	4	2014	4	2015
Abrasion, Laceration and Puncture Protection	4	2014	4	2015
High Performance Marine Diesel	1	2015	1	2016
Phase II >\$750K	2	2015	2	2016

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovative Research</i>	<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S051: <i>Small Business Technology Transfer</i>	-	1.299	-	-	-	-	-	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Small Business Technology Transfer (STTR)	1.299	-	-
<b>FY 2014 Accomplishments:</b> Awarded Tactical Assault Light Operator Suit (TALOS) Power Source-Rotary Engine Size, Weight, and Power contract and various small STTR efforts <\$1M.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.299	-	-

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A





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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160279BB / <i>Small Business Innovative Research</i>	<b>Project (Number/Name)</b> S051 / <i>Small Business Technology Transfer</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>STTR Projects</b>				
Award Tactical Assault Light Operator Arm Reaction/Manipulation System contact	4	2014	4	2015
STTR <\$1M	2	2015	2	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	448.154	131.119	158.733	173.934	-	173.934	133.619	80.310	68.533	47.190	Continuing	Continuing
SF100: <i>Aviation Systems Advanced Development</i>	448.154	86.074	78.199	92.830	-	92.830	84.939	34.988	20.554	22.926	Continuing	Continuing
SF200: <i>CV-22</i>	0.000	2.817	0.182	-	-	-	0.707	14.372	21.806	-	-	39.884
S750: <i>Mission Training and Preparation Systems</i>	0.000	4.696	7.333	7.052	-	7.052	7.051	6.874	7.035	7.086	Continuing	Continuing
S875: <i>AC/MC-130J</i>	0.000	9.915	5.629	7.398	-	7.398	8.024	6.719	2.329	-	Continuing	Continuing
D615: <i>Rotary Wing Aviation</i>	0.000	27.617	67.390	66.654	-	66.654	32.898	17.357	16.809	17.178	Continuing	Continuing

**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) for AC-130W; 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 & Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; 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 10: Integrated and tested Directional Infrared Countermeasures, a system that protects against infrared guided missiles; designed, integrated and validated the Troop Commander Situational Awareness Station that provides the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocated the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; added a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration, exfiltration, and resupply missions; and incorporate a dual access feature to the Digital Map System to allow both the pilot and co-pilot to independently access and control the digital map display from the mission computer. 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.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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**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 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 AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II. 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 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; airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and provide close air support, air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. 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. 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.



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	130.811	164.233	151.349	-	151.349
Current President's Budget	131.119	158.733	173.934	-	173.934
Total Adjustments	0.308	-5.500	22.585	-	22.585
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.308	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	22.585	-	22.585

**Change Summary Explanation**

Funding:

FY 2014: Increase of \$0.308 million supports flight and qualification testing for MH-60M Block Upgrades.

FY 2015: Net decrease of \$5.500 million is due to congressional reductions to the C-130 Terrain Following Radar System for under execution (-\$4.000 million) and EC-130J Commando Solo as a new start (-\$1.500 million).

FY 2016: Net increase of \$22.585 million is due to an increase for Degraded Visual Environment integration and flight test (\$7.688 million); to improve size, weight, power and integration of payloads for SOF ISR (\$1.344 million); tactical flight management system and electronic warfare bus access for Commando II (\$5.562 million); C-130 Terrain Following Radar (\$10.251 million); and decreases for higher command priorities (-\$1.000 million) and a Departmental economic assumption decrease (-\$1.260 million).

Schedule: None.

Technical: None.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>				<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SF100: <i>Aviation Systems Advanced Development</i>	448.154	86.074	78.199	92.830	-	92.830	84.939	34.988	20.554	22.926	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) for AC-130W, AC-130H replacement aircraft, and other SOF 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 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 at program start, situational awareness and threat response processing, which includes the RFCM system, and future defensive systems. RFCM program provides SOF-unique aircraft defensive capabilities required for SOF missions.
- 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 other SOF platforms. Missions for the AC-130 aircraft include, but are not limited to, Close Air Support (CAS), Air Interdiction, Armed Reconnaissance, Escort, and Force Protection - Integrated Base Defense. 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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>
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- 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.
- 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 Development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.
- Sensor Technology: Development, integration, and testing of sensor miniaturization effort to place large ISR platform capability, such as Group 4-5 unmanned aerial systems (UASs) into various smaller ISR platforms such as Group 2-3 UASs.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
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<b>Title:</b> EC-130J Upgrades	1.235	3.503	4.161
<b>FY 2014 Accomplishments:</b> Continued integration of SOF-unique implementation of the C-130J block cycle upgrade installed on the EC-130J Commando Solo aircraft.			
<b>FY 2015 Plans:</b> Begin development of trial kit installation of C-130J block cycle upgrade.			
<b>FY 2016 Plans:</b> Continues development and testing of trial kit installation of C-130J block cycle upgrade.			
<b>Title:</b> ESA	0.724	0.182	-
<b>FY 2014 Accomplishments:</b> Continued risk reduction, development and integration of an ESA system on SOF C-130 aircraft.			
<b>FY 2015 Plans:</b> Begin flight test ESA system on SOF C-130 aircraft.			
<b>Title:</b> EW – RFCM	1.936	16.181	43.691
<b>FY 2014 Accomplishments:</b> Initiated risk reduction activities and development efforts for an EW-RFCM system on AC/MC-130J aircraft.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Conduct source selection and begin program to develop, integrate and test EW capability against RF threats for SOF AC/MC-130J aircraft.</p> <p><b>FY 2016 Plans:</b> Continues development, integration and testing to provide EW capability against RF threats for SOF AC/MC-130J aircraft.</p>			
<p><b>Title:</b> PSP for SOF</p> <p><b>FY 2014 Accomplishments:</b> Continued development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft.</p> <p><b>FY 2015 Plans:</b> Continue development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft.</p> <p><b>FY 2016 Plans:</b> Continues development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft.</p>	22.092	15.136	10.169
<p><b>Title:</b> PSP Large Caliber Gun</p> <p><b>FY 2014 Accomplishments:</b> Started development, integration and test of large caliber gun capability upgrade of the PSP on AC-130 aircraft.</p> <p><b>FY 2015 Plans:</b> Continue development, integration and testing of large caliber gun capability upgrade of the PSP on AC-130 aircraft.</p> <p><b>FY 2016 Plans:</b> Completes development, integration and testing of large caliber gun capability upgrade of the PSP on AC-130 aircraft.</p>	17.414	5.931	3.926
<p><b>Title:</b> C-130 Terrain Following (TF) Radar System</p> <p><b>FY 2014 Accomplishments:</b> Continued development, integration and test of the TF Radar System on MC-130J aircraft. Supported developmental flight testing and an Operational Utility Evaluation for the first software spiral providing initial TF Capabilities. Also supported development, integration and test efforts for LPI TF capabilities on MC-130J aircraft as part of a second software spiral.</p> <p><b>FY 2015 Plans:</b> Continue development, integration, test and Operational Utility Evaluation of the TF radar system on two MC-130J aircraft to accelerate MC-130J TF fielding and capability.</p> <p><b>FY 2016 Plans:</b></p>	23.662	28.642	27.174

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Continues development, integration and test of the TF radar system on two MC-130J development testing aircraft. Also supports development and test efforts for integrating the TF radar system with the MC-130J Increment 3 special mission processors.			
<b>Title:</b> SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar	19.011	7.212	-
<b>FY 2014 Accomplishments:</b> Continued EMD of SOF Common TF/TA radar. Continued Developmental flight testing.			
<b>FY 2015 Plans:</b> Complete EMD of SOF Common TF/TA radar. Perform qualification flight testing.			
<b>Title:</b> EC-130J Commando Solo	-	1.412	2.375
<b>FY 2015 Plans:</b> Begin development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.			
<b>FY 2016 Plans:</b> Continues integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.			
<b>Title:</b> Intelligence, Surveillance, and Reconnaissance Payload	-	-	1.334
<b>FY 2016 Plans:</b> This is an FY 2016 new start. Begins development, integration, and testing of sensor miniaturization effort to place large ISR platform capability, such as Group 4-5 unmanned aerial systems (UASs) into various smaller ISR platforms such as Group 2-3 UASs.			
<b>Accomplishments/Planned Programs Subtotals</b>	86.074	78.199	92.830

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>			<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To</b>	
			<b>Base</b>	<b>OCO</b>	<b>Total</b>					<b>Complete</b>	<b>Total Cost</b>
• PROC1: C-130 Modifications	56.032	25.414	66.861	-	66.861	73.853	36.368	32.890	33.549	Continuing	Continuing
• PROC2: Precision Strike Package	90.220	131.929	204.105	-	204.105	213.720	218.400	222.024	227.066	Continuing	Continuing
• PROC3: Rotary Wing Upgrades and Sustainment	114.156	112.226	133.445	-	133.445	193.603	175.047	151.291	147.121	Continuing	Continuing

**Remarks**

**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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>

- ESA: Air Force integration of off-the-shelf hardware and software into carry-on kits for enhanced situational awareness hardware to include processors and displays.
- EW – RFCM: Award a competitive Engineering and Manufacturing Development (EMD) contract for development, integration and test of an RF Countermeasure system on AC/MC-130J aircraft.
- PSP for SOF: Incremental acquisition strategy to integrate and test the PSP and capability enhancements on MC-130J aircraft provided by the U.S. Air Force and the 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 competitive EMD contract for development, integration and test in FY 2012. Executing incremental acquisition strategy with contractor flight testing FY 2014; USG Development, Test, and Evaluation FY 2015; Operational Test and Evaluation FY 2016 with Initial Operating Capability Q3 FY 2016.
- SOF Common TF/TA (Silent Knight) Radar: Competitive EMD and low-rate initial production (LRIP) I contract 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 (FRP) contract using LRIP price points will be awarded.
- 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.
- Sensor Technology: Effort is being executed via an incremental acquisition strategy based on the state of existing sensor technology. The focus will be on miniaturization and combining of SIGINT, Electro-optical, and infra-red sensor capability onto an existing ISR platform.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
EC-130J Upgrades	C/CPIF	Lockheed Martin : Marietta, GA	4.576	1.235	Dec 2013	3.503	Dec 2014	4.161	Dec 2015	-		4.161	Continuing	Continuing	-
Enhanced Situational Awareness (ESA)	C/Various	Robins AFB : Warner-Robins, GA	1.576	0.724	Dec 2014	0.182	Jun 2015	-		-		-	-	2.482	-
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)	C/TBD	TBD : TBD	0.000	1.936	Mar 2014	16.181	Jul 2015	43.691	Jul 2016	-		43.691	Continuing	Continuing	-
Precision Strike Package (PSP) for SOF - Prime Mission Product	SS/ Various	Various : Various	73.996	11.406	Mar 2014	5.794	Mar 2015	-		-		-	-	91.196	-
PSP Large Caliber Gun	C/TBD	Various : Various	0.000	9.083	Mar 2014	2.436	Mar 2015	2.426	Jan 2016	-		2.426	-	13.945	-
C-130 Terrain Following (TF) Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	36.926	16.429	Jan 2014	12.889	Jan 2015	16.855	Jan 2016	-		16.855	Continuing	Continuing	-
SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar - Systems Engineering	C/Various	Various : Various	16.970	0.338	Dec 2013	1.554	Jan 2015	-		-		-	-	18.862	-
SOF Common TF/TA (Silent Knight) Radar Prime Mission Product	C/CPIF	Raytheon : Dallas, TX	79.490	0.339	Dec 2013	0.085	Jan 2015	-		-		-	-	79.914	-
EC-130J Commando Solo	C/TBD	Various : Various	0.000	-		1.412	Apr 2015	2.375	Dec 2015	-		2.375	Continuing	Continuing	-
Intelligence, Surveillance, and Reconnaissance Payload	TBD	Various : Various	-	-		-		1.334	Mar 2016	-		1.334	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	80.572	-		-		-		-		-	-	80.572	-
<b>Subtotal</b>			294.106	41.490		44.036		70.842		-		70.842	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> SF100 / Aviation Systems Advanced Development
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PSP for SOF	C/Various	Various : Various	2.409	2.476	Jan 2014	0.581	Dec 2014	-		-		-	-	5.466	-
PSP Large Caliber Gun	C/Various	Various : Various	0.000	1.051	Mar 2014	0.145	Dec 2014	-		-		-	-	1.196	-
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.001	Mar 2014	3.339	Dec 2014	3.028	Dec 2015	-		3.028	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	TBD	Various : Various	22.334	-		-		-		-		-	-	22.334	-
<b>Subtotal</b>			24.743	5.528		4.065		3.028		-		3.028	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PSP for SOF	C/Various	Various : Various	1.970	8.210	Jan 2014	8.761	Jan 2015	10.169	Jan 2016	-		10.169	Continuing	Continuing	-
PSP Large Caliber Gun	C/Various	Various : Various	0.000	7.280	Mar 2014	3.350	Jan 2015	1.500	Jan 2016	-		1.500	-	12.130	-
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.612	Mar 2014	8.950	Dec 2014	5.046	Dec 2015	-		5.046	Continuing	Continuing	-
SOF Common TF/TA (Silent Knight) Radar	C/CPIF	Various : Various	99.310	16.443	Dec 2013	4.912	Jan 2015	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			101.280	34.545		25.973		16.715		-		16.715	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.620	Mar 2014	3.464	Dec 2014	2.245	Dec 2015	-		2.245	Continuing	Continuing	-
SOF Common TF/TA (Silent Knight) Radar	C/CPIF	Raytheon : Dallas, TX	28.025	1.891	Dec 2013	0.661	Jan 2015	-		-		-	-	30.577	-







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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF100 / <i>Aviation Systems Advanced Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>EC-130J Upgrades</i></b>				
Upgrades	1	2014	4	2017
<b><i>Enhanced Situational Awareness for MC-130H</i></b>				
Development, Integration, and Testing	2	2014	4	2015
<b><i>Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)</i></b>				
Development, Integration, and Testing	2	2014	4	2019
<b><i>Precision Strike Package (PSP) for SOF</i></b>				
PSP for SOF Development, Integration, and Testing	1	2014	4	2020
PSP Large Caliber Gun Development, Integration, and Testing	2	2014	2	2016
<b><i>C-130 Terrain Following Radar System</i></b>				
Developmental Testing	2	2014	4	2015
Operational Testing	1	2016	3	2016
<b><i>SOF Common Terrain Following/Terrain Avoidance (Silent Knight) Radar</i></b>				
Developmental / Qualification Testing	1	2014	1	2016
Operational Testing	2	2016	3	2016
<b><i>EC-130J Commando Solo</i></b>				
Development, Integration, and Testing	3	2015	4	2016
<b><i>ISR Payload</i></b>				
Development, Integration, and Testing	2	2016	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>				<b>Project (Number/Name)</b> SF200 / CV-22			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
SF200: CV-22	-	2.817	0.182	-	-	-	0.707	14.372	21.806	-	-	39.884
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**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 and associated training systems. 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. 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, robust performance in situational awareness, weapons, avionics, survivability, maneuverability, mission deployment, improved reliability and maintainability of the CV platform.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> CV-22 Aircraft Block 20	2.817	0.182	-
<b>FY 2014 Accomplishments:</b> Continued ESA development providing enhanced, correlated, fusion and display, threat response, training and simulation capabilities and developmental testing for aircraft block upgrades.			
<b>FY 2015 Plans:</b> Complete ESA development providing enhanced, correlated, fusion and display, threat response, training and simulation capabilities and developmental testing for aircraft block upgrades.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.817	0.182	-

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC1: CV-22 SOF Modification	104.199	21.578	18.832	-	18.832	20.158	18.522	23.307	21.505	-	228.101
• PROC/V022A0: Aircraft Procurement CV-22 (MYP)	230.798	-	-	-	-	-	-	-	-	-	4,272.414
• RDT&E1/0401318F: RDT&E, USAF	46.705	39.202	26.728	-	26.728	16.073	14.566	14.828	-	131.500	613.166
• RDT&E/0604262N: V-22 RDT&E, N BA-05	43.084	68.816	60.659	-	60.659	53.319	53.063	-	-	273.513	9,363.505

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF200 / CV-22
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**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 10 RDT&E funding was sent from USSOCOM to NAVAIRSYSCOM to be placed on contract with the V-22 prime contractor. Block 10 capability is required for compliance with the Joint Operational Requirements Document and associated Milestone III Capabilities Production Document. 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



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF200 / CV-22
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>CV-22</b>	
CV-22 Block 20 Development/Test	
CV-22 Aircraft Deliveries	
CV-22 ESA	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> SF200 / CV-22
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>CV-22</b>				
CV-22 Block 20 Development/Test	2	2014	4	2015
CV-22 Aircraft Deliveries	1	2014	1	2016
CV-22 ESA	1	2014	3	2015



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems				<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S750: Mission Training and Preparation Systems</i>	-	4.696	7.333	7.052	-	7.052	7.051	6.874	7.035	7.086	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SOMPE	4.696	7.333	7.052
<b>FY 2014 Accomplishments:</b> Continued 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. Continued testing of mission planning, data transfer and performance software.			
<b>FY 2015 Plans:</b> Continue 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,			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> S750 / <i>Mission Training and Preparation Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
airplanes, and simulator/rehearsal systems, and automated performance models and performance prediction software. Continue testing of mission planning, data transfer and performance software.  <b>FY 2016 Plans:</b> 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).			
<b>Accomplishments/Planned Programs Subtotals</b>	4.696	7.333	7.052

**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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Special Operations Mission Planning and Execution (SOMPE) Software	MIPR	Various : Various	-	3.999	Jan 2014	5.942	Jan 2015	5.650	Jan 2016	-		5.650	Continuing	Continuing	-
<b>Subtotal</b>			-	3.999		5.942		5.650		-		5.650	-	-	-

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOMPE Software	MIPR	Special Operations Mission Planning Office : Fort Eustis, VA	-	0.256	Feb 2014	0.332	Feb 2015	0.363	Feb 2016	-		0.363	Continuing	Continuing	-
<b>Subtotal</b>			-	0.256		0.332		0.363		-		0.363	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOMPE Software	C/CPFF	Wyle-CAS : Huntsville, AL	-	0.441	Jan 2014	1.059	Jan 2015	1.039	Jan 2016	-		1.039	Continuing	Continuing	-
<b>Subtotal</b>			-	0.441		1.059		1.039		-		1.039	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		-	4.696	7.333	7.052	-	-	7.052	-

**Remarks**



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S750 / Mission Training and Preparation Systems

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Special Operations Mission Planning and Execution (SOMPE) Software</i></b>				
Software Development	2	2014	4	2020
Development Support	2	2014	4	2020
Test & Evaluation	2	2014	4	2020

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S875: AC/MC-130J	-	9.915	5.629	7.398	-	7.398	8.024	6.719	2.329	-	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 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 configuration. These platforms 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; airdrop leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and close air support (CAS), air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. 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 2014	FY 2015	FY 2016
<b>Title:</b> MC-130J	5.412	2.848	6.118
<b>FY 2014 Accomplishments:</b> Continued SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
<b>FY 2015 Plans:</b> Continue SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
<b>FY 2016 Plans:</b> Continues SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
<b>Title:</b> ESA	0.631	1.705	0.705
<b>FY 2014 Accomplishments:</b>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> S875 / AC/MC-130J
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
Initiated ESA integration and test on the MC-130J aircraft. <i><b>FY 2015 Plans:</b></i> Continue ESA integration and test. <i><b>FY 2016 Plans:</b></i> Continues ESA integration and test.			
<i><b>Title:</b></i> AC-130J <i><b>FY 2014 Accomplishments:</b></i> Developed and tested aircraft modification designs for PSP kit installation. <i><b>FY 2015 Plans:</b></i> Develop and tests aircraft modification designs for PSP kit installation. <i><b>FY 2016 Plans:</b></i> Develops and tests aircraft modification designs for PSP kit installation.	3.872	1.076	0.575
<b>Accomplishments/Planned Programs Subtotals</b>	9.915	5.629	7.398

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: AC/MC-130J	54.070	70.988	61.368	-	61.368	63.567	157.117	176.794	207.572	Continuing	Continuing
• PROC2: Precision Strike Package	90.220	131.929	204.105	-	204.105	213.730	218.400	222.024	227.066	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, test and production/retrofit of SOF-unique mission equipment under this program and the USSOCOM PSP program.

**E. Performance Metrics**

N/A





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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> S875 / <i>AC/MC-130J</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>MC-130J</b>	
Development/Test	
<b>Enhanced Situational Awareness (ESA)</b>	
Development/Test	
<b>AC-130J</b>	
Development/Test	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> S875 / <i>AC/MC-130J</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>MC-130J</i></b>				
Development/Test	3	2014	4	2019
<b><i>Enhanced Situational Awareness (ESA)</i></b>				
Development/Test	4	2014	4	2019
<b><i>AC-130J</i></b>				
Development/Test	2	2014	4	2019

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>				<b>Project (Number/Name)</b> D615 / <i>Rotary Wing Aviation</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D615: <i>Rotary Wing Aviation</i>	-	27.617	67.390	66.654	-	66.654	32.898	17.357	16.809	17.178	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. 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 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.
- MH-60M SOF Modernization program provides for the recurring/non-recurring systems engineering and platform integration efforts, to include continued flight and qualification testing and test support for MH-60M Block program.
- 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.
- 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

- Infrared Countermeasure (IRCM) program provides a low Size, Weight, and Power (SWaP) capability suitable for the A/MH-6 Mission Enhanced Little Bird. The IRCM program will develop, integrate, qualify, and test a complete lightweight IRCM system to include a missile warning system and countermeasure capability. The A/MH-6 is the only tactical aircraft in the U.S. Army inventory without protection from infrared guided and other advanced Man Portable Air Defense missiles.
- MH-47 Modifications and Upgrades program develops technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include the Active Parallel Actuator System (APAS), Active Noise Cancellation (ANC), and Engine Barrier Filter.
- 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.
- Next Generation Forward Looking Infrared (NGFLIR) program is a pre-planned product improvement that incorporates a multispectral sensor (Shortwave Infrared, Image Intensifying TV, and Color Day TV) into the existing Q2 Electro-Optical Sensor System (EOSS). This will improve targeting, tracking, and aircrew situational awareness. This program also maximizes the service life of the Q2 sensor by mitigating obsolescence and increasing functionality on the light and heavy assault platforms within the ARSOA fleet.

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> A/MH-6M Block 3.0 Upgrade <b>FY 2014 Accomplishments:</b> Continued the development of cockpit upgrades, improved rotor systems, and upgrades to airframe. <b>FY 2015 Plans:</b> Continue development of cockpit upgrades, improved rotor systems, and upgrades to airframe. Continue component level qualification testing and Contract Data Requirements List development/submittals. Initiate system level qualification testing. <b>FY 2016 Plans:</b> Continues system level qualification of improved rotor system and initiates Airworthiness and Flight Characteristics testing.	12.420	20.037	20.010
<b>Title:</b> MH-60M SOF Modernization Program <b>FY 2014 Accomplishments:</b>	2.686	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Began flight and qualification testing for the MH-60M upgrades.				
<b>Title:</b> MH-60M Block Upgrades <b>FY 2015 Plans:</b> Continue flight and qualification testing for the MH-60M Block Upgrades <b>FY 2016 Plans:</b> Continues integration and flight qualification for the MH-60M Block Upgrades.		-	13.500	12.666
<b>Title:</b> DVE <b>FY 2014 Accomplishments:</b> Completed Phase I DVE sensor development culminating in ground test of three candidate technical solutions. <b>FY 2015 Plans:</b> Continue Phase II DVE sensor development culminating in flight test of two candidate technical solutions. <b>FY 2016 Plans:</b> Continues integration and testing of the selected DVE technical solution.		11.523	16.976	13.465
<b>Title:</b> FVL <b>FY 2014 Accomplishments:</b> Began to identify classes of FVL technology development most applicable to SOF Aviation platforms and participated in the Analysis of Alternatives conducted by the Joint FVL Program Office. <b>FY 2015 Plans:</b> Continue participation in the Joint Integrated Product Team materiel solution analysis with a focus on injecting SOF requirements into the baseline planning and requirements documents that provides a minimum of SOF-peculiar modifications. Focus will be on current fleet operations and support cost analysis, logistics analysis, and cost estimation methodology to include front end better buying power initiatives. <b>FY 2016 Plans:</b> Continues science and technology effort aligned with the future SOF-peculiar requirements.		0.488	1.299	1.282
<b>Title:</b> IRCM <b>FY 2014 Accomplishments:</b> Conducted market analysis and trade studies in parallel with requirement definition completion. <b>FY 2015 Plans:</b>		0.500	2.498	3.450

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Begin development, integration, and qualification testing of a missile warning and lightweight IRCM systems for A/MH-6 aircraft. <b>FY 2016 Plans:</b> Continues development, integration, and qualification testing of missile warning and lightweight IRCM systems for the A/MH-6 aircraft.			
<b>Title:</b> MH-47 Low Cost Modifications <b>FY 2015 Plans:</b> Begin development of APAS and the Engine Barrier Filter for the MH-47G. <b>FY 2016 Plans:</b> Continues development of APAS and the Engine Barrier Filter for MH-47G.	-	7.000	11.753
<b>Title:</b> MPU <b>FY 2015 Plans:</b> Begin development and testing of replacement mission and video processors for the ARSOA platforms. <b>FY 2016 Plans:</b> Continues development and testing of replacement mission and video processors for the ARSOA platforms.	-	3.000	3.032
<b>Title:</b> NGFLIR <b>FY 2015 Plans:</b> Begin development, integration, and testing of the multi-spectral sensor into the Q2 EOSS. <b>FY 2016 Plans:</b> Continues development, integration, and testing of the multi-spectral sensor into the Q2 EOSS.	-	3.080	0.996
<b>Accomplishments/Planned Programs Subtotals</b>	27.617	67.390	66.654

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC 1: Rotary Wing Upgrades and Sustainment	114.156	112.226	133.445	-	133.445	193.603	175.047	151.291	147.121	Continuing	Continuing
<b>Remarks</b>											

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Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command Date: February 2015

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / Aviation Systems	Project (Number/Name) D615 / Rotary Wing Aviation
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**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 (SOFA) by the incumbent contractor.
- MH-60M SOF Modernization Program 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. Contractor flight test support will be conducted by Sikorsky Aircraft while aircraft modification efforts will be performed at the SOFA by the incumbent contractor.
- MH-60M Block Upgrades are accomplished for 72 MH-60M base aircraft with various contractors and acquisition vehicles. The SOFA 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. DVE will increase MH-60 and MH-47 and warfighter survivability in degraded visual environments.
- 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 will be a competitive source selection effort that 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. Special Operations Aviation requires the addition of IRCM to protect against increasingly proliferated and sophisticated infrared-guided weapons.
- MH-47 Modifications and Upgrades - These efforts 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.
- MPU - The GPPU NRE supports improvements to the video processing and Ethernet switch capabilities for CAAS aircraft. The engineering and testing will be sole-source to Rockwell Collins, the original equipment manufacturer (OEM) for the GPPU. The 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 OEM for the DCU. The Future Aircraft Architecture Studies will be competitively awarded.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160403BB / <i>Aviation Systems</i>	D615 / <i>Rotary Wing Aviation</i>

• NGFLIR integration of a multi-spectral sensor into the Q2 EOSS will be sole-source procurement through Raytheon. As the OEM, Raytheon maintains overall responsibility for the Q2 System, and will develop an acquisition strategy to develop, test, and integrate the multi-spectral sensor. Raytheon is closely monitoring the joint Technology Applications Program Office/Night Vision Electronic Sensors Directorate multi-spectral work, and is currently using Independent Research and Development to further mature that technology.

**E. Performance Metrics**

N/A



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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / Aviation Systems	<b>Project (Number/Name)</b> D615 / Rotary Wing Aviation
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
A/MH-6M Block 3.0 Upgrades	C/Variou	PM MELB : Ft Eustis, VA	0.000	12.420	Dec 2013	20.037	Jan 2015	20.010	Dec 2015	-		20.010	Continuing	Continuing	-
Degraded Visual Environment (DVE)	C/Variou	PM TAPO : Ft Eustis, VA	0.000	11.523	Jul 2014	16.976	Jan 2015	13.465	Dec 2015	-		13.465	Continuing	Continuing	-
Future Verticle Lift (FVL)	C/Variou	PEO-RW : MacDill AFB, FL	0.000	0.488	Jun 2014	1.299	Sep 2015	1.282	Feb 2016	-		1.282	Continuing	Continuing	-
Infrared Countermeasure (IRCM)	C/Variou	PM TAPO : Ft Eustis, VA	0.000	0.500	Jul 2014	2.498	Apr 2015	3.450	Apr 2016	-		3.450	Continuing	Continuing	-
MH-47G Low Cost Mods	C/Variou	PM TAPO : Eustis, VA	0.000	-		7.000	Jun 2015	11.753	Jun 2016	-		11.753	Continuing	Continuing	-
Mission Processor Upgrade (MPU)	C/Variou	PM TAPO : Eustis, VA	0.000	-		3.000	Apr 2015	3.032	Apr 2016	-		3.032	Continuing	Continuing	-
Next Generation Foward Looking Infrared (NGFLIR)	C/Variou	PM TAPO : Eustis, VA	0.000	-		3.080	Apr 2015	0.996	Apr 2016	-		0.996	Continuing	Continuing	-
<b>Subtotal</b>			0.000	24.931		53.890		53.988		-		53.988	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
MH-60M SOF Modernization Program	C/Variou	Various : Various	0.000	2.686	Jun 2014	-		-		-		-	-	2.686	-
MH-60 Block Upgrades	C/Variou	Various : Various	0.000	-		13.500	Apr 2015	12.666	Apr 2016	-		12.666	-	26.166	-
<b>Subtotal</b>			0.000	2.686		13.500		12.666		-		12.666	-	28.852	-

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			0.000	27.617	67.390	66.654	-	66.654	-	-	-

**Remarks**



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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160403BB / <i>Aviation Systems</i>	<b>Project (Number/Name)</b> D615 / <i>Rotary Wing Aviation</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
A/MH-6M Block 3.0 Development/Qualification/Testing	1	2014	2	2017
MH-60M SOF Modernization Program Qualification	3	2014	4	2014
MH-60M Block Upgrades Testing	3	2015	4	2016
Degraded Visual Environment (DVE)	4	2014	3	2017
Future Vertical Lift (FVL)	3	2014	4	2018
Infrared Countermeasure (IRCM)	4	2014	4	2020
MH-47G Low Cost Mods Qualification/Testing	3	2015	4	2020
Mission Processor Upgrade (MPU)	3	2015	1	2020
Next Generation Forward Looking Infrared (NGFLIR)	3	2015	1	2016

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	Continuing	Continuing
S400: <i>SO Intelligence Systems</i>	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	7.705	9.490	6.436	-	6.436
Current President's Budget	7.705	9.490	6.866	-	6.866
Total Adjustments	-	-	0.430	-	0.430
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.430	-	0.430

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160405BB / <i>Intelligence Systems Development</i>

FY 2016: Net increase of \$0.430 million is due to a reprogramming supporting Sensitive Site Exploitation operational test (\$0.155 million), Special Operations Forces Planning, Rehearsal and Execution Preparation test and evaluation (\$0.325 million) and a decrease of -\$0.050 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S400: <i>SO Intelligence Systems</i>	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project 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. 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 (SOTVS); 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 capability which functions as HQ SOCOM's Tactical Exploitation of National Capabilities program. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands by leveraging National Agency and Service development efforts to provide innovative space-based intelligence systems technologies and enhancements, products and special communications capabilities to tactical SOF units. Focus items include: small, tactical Unmanned Aerial System (UAS) Multi-Intelligence geo-location and targeting capabilities with Rapid Reliable Targeting (RRT) system, enhanced Geospatial Intelligence (GEOINT) processing capabilities by Fusing Light Detection and Ranging (LiDAR) 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 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 which enhances tactical SOF capabilities to find, fix, monitor, and target assets using NTM.
- JTWS. This program is an evolutionary acquisition (EA) program effort. JTWS System of Systems (SoS) is principally a Signals Intelligence (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 (GSK) variant, Maritime variant, Air

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
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variant (AVS) and Unmanned Air System (UAS) 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 (TSOC) based upon dynamic and emergent SOF operational requirements.
- SOTVS. 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. SOTVS 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 SOTVS program consists of a Family of Systems (FoS) that employs an evolutionary acquisition strategy for evolving technology insertion, supplemented with commodity procurement. The program 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)

NOTE: Beginning in FY 2016 SOFPREP has been re-aligned from Mission Training and Preparation System program element 1160427BB into Special Operations Intelligence Systems Development program element 1160405BB.

- SOFPREP. This program serves as the intelligence focal point for production of SOF enhanced Geospatial Intelligence (GEOINT) (maps, imagery, and terrain data) and 3D scene visualization database. SOFPREP gathers, processes, exploits and disseminates classified high resolution 3D databases and GEOINT data in support of SOF training, mission rehearsal and execution preparation systems. The program builds the common environment for SOF Modeling and Simulation (M&S) applications and facilitates the integration of authoritative source data to enable the rapid discovery, retrieval, and reuse of GEOINT data across SOF planning, operations, intelligence and M&S. 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 US 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.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>		
<ul style="list-style-type: none"> <li>SSE. This program provides the capability to exploit personnel, documents, electronic data, material, and forensic evidence on sensitive sites/objectives. It allows collection and transmission of unique, measurable biometric signatures, 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.</li> </ul>				
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> NSSS</p> <p><b>FY 2014 Accomplishments:</b> 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. Emphasis areas included ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as Friendly Force Tracking (FFT), especially in system-challenged environments.</p> <p><b>FY 2015 Plans:</b> Develop 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. Emphasis areas include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.</p> <p><b>FY 2016 Plans:</b> Develops 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. Emphasis areas will include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.</p>		0.795	0.807	0.802
<p><b>Title:</b> JTWS</p> <p><b>FY 2014 Accomplishments:</b> Continued networking and testing within the JTWS SoS and continued spiral development for all variants. Began JTWS Maritime prototype development.</p> <p><b>FY 2015 Plans:</b> Continue networking and testing within the JTWS SoS and continue spiral development for all variants. Continue JTWS Maritime prototype development.</p> <p><b>FY 2016 Plans:</b> Continues networking and testing within the JTWS SoS and continues spiral development for all variants. Continues JTWS Maritime prototype development.</p>		6.543	7.301	4.317
<p><b>Title:</b> HF-TTL</p>		-	0.731	0.765

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>FY 2015 Plans:</b> Begin specialized device modifications,integration and operational testing and evaluation.</p> <p><b>FY 2016 Plans:</b> Continues specialized device modifications, integration and operational testing and evaluation.</p>			
<p><b>Title:</b> SOTVS</p> <p><b>FY 2014 Accomplishments:</b> Began integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/software configuration on all systems.</p> <p><b>FY 2015 Plans:</b> Continue integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/software configuration on all systems.</p> <p><b>FY 2016 Plans:</b> Continues integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/software configuration on all systems.</p>	0.367	0.373	0.377
<p><b>Title:</b> SOFPREP</p> <p><b>FY 2016 Plans:</b> This is an FY 2016 new start. Begins testing and evaluation of operational prototype systems to speed production of correlated high resolution 3D terrain databases in a Graphics Processing Unit accelerated high performance computing architecture.</p>	-	-	0.325
<p><b>Title:</b> ISP</p> <p><b>FY 2015 Plans:</b> Begin development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology.</p> <p><b>FY 2016 Plans:</b> Continues development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology.</p>	-	0.278	0.125
<p><b>Title:</b> SSE</p> <p><b>FY 2016 Plans:</b></p>	-	-	0.155

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
This is an FY 2016 new start. Begins specialized device integration and operational testing and evaluation.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.705	9.490	6.866

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC1: <i>Intelligence Systems</i>	93.567	91.050	93.009	-	93.009	91.679	90.019	89.416	93.275	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 precision geo-location variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational test and acceptance support.
- 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.
- SOTVS 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
<ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li></ul>		
<b>E. Performance Metrics</b> N/A		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
National Systems Support to SOF (NSSS)	MIPR	Various : Various	14.338	0.535	Dec 2013	0.542	Dec 2014	0.532	Dec 2015	-		0.532	Continuing	Continuing	-
Joint Threat Warning System (JTWS)-Air Increment 2	MIPR	SPAWAR : Charleston, SC	4.568	0.600	Nov 2013	0.935	Nov 2014	0.945	Nov 2015	-		0.945	Continuing	Continuing	-
JTWS-Ground Sigint Kit (GSK), Inc 2	C/CPFF	Various : Various	18.282	0.775	Nov 2013	0.791	Nov 2014	0.795	Nov 2015	-		0.795	Continuing	Continuing	-
JTWS-Maritime	C/CPFF	Various : Various	1.102	3.320	Nov 2013	3.387	Nov 2014	0.315	Nov 2015	-		0.315	Continuing	Continuing	-
JTWS-All Variants	MIPR	Various : Various	-	0.818	Nov 2013	0.836	Oct 2014	0.829	Oct 2015	-		0.829	Continuing	Continuing	-
Integrated Survey Program	C/FFP	Various : Various	-	-		0.278	Jan 2015	0.125	Jan 2016	-		0.125	Continuing	Continuing	-
Hostile Forces-Tagging Tracking, and Locating (HF-TTL)	MIPR	Various : Various	-	-		0.381	Jan 2015	0.230	Nov 2015	-		0.230	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	461.047	-		-		-		-		-	-	461.047	-
<b>Subtotal</b>			499.337	6.048		7.150		3.771		-		3.771	-	-	-

<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
JTWS Variant Analysis - Naval Post-Graduate School (NPS)	MIPR	NPS : Monterey, CA	0.385	0.130	Jan 2014	0.135	Jan 2015	0.137	Jan 2016	-		0.137	Continuing	Continuing	-
JTWS-NSA Intern Support	MIPR	NSA : Ft Meade, MD	0.300	0.100	Apr 2014	0.103	Apr 2015	0.105	Apr 2016	-		0.105	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	6.493	-		-		-		-		-	-	6.493	-
<b>Subtotal</b>			7.178	0.230		0.238		0.242		-		0.242	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
JTWS	MIPR	JITC : FT Huachuca, AZ	3.880	0.800	Nov 2013	1.114	Nov 2014	1.191	Nov 2015	-		1.191	Continuing	Continuing	-
Special Operations Tactical Video Systems (SOTVS)	MIPR	ATEC : FT Huachuca, AZ	-	0.367	Mar 2014	0.373	Jun 2015	0.377	Nov 2015	-		0.377	Continuing	Continuing	-
HF-TTL	MIPR	ATEC : FT Huachuca, AZ	-	-		0.350	Mar 2015	0.535	Nov 2015	-		0.535	Continuing	Continuing	-
Sensitive Site Exploitation (SSE)	MIPR	JTIC : FT Huachuca, AZ	-	-		-		0.155	Dec 2015	-		0.155	Continuing	Continuing	-
Special Operations Forces Planning, Rehearsal & Execution Preparation (SOPREP)	C/FFP	Various : Various	-	-		-		0.325	Jan 2016	-		0.325	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.549	-		-		-		-		-	-	0.549	-
<b>Subtotal</b>			4.429	1.167		1.837		2.583		-		2.583	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
NSSS Program Support	C/CPAF	Jacobs : Tampa, FL	4.958	0.260	Mar 2014	0.265	May 2015	0.270	May 2016	-		0.270	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	30.679	-		-		-		-		-	-	30.679	-
<b>Subtotal</b>			35.637	0.260		0.265		0.270		-		0.270	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		546.581	7.705	9.490	6.866	6.866	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

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

<b>National Systems Support to SOF Participation in Space Technology Dev and Demo</b>	
National System Support to SOF Participation in Space technology Dev and Demo	
<b>Joint Threat Warning System</b>	
Air Variant Development, Test and Evaluation	
Ground Sigint Kit Variant Development, Test and Evaluation	
Maritime Variant Development, Test and Evaluation	
<b>Hostile Forces - Tagging, Tracking, and Locating</b>	
Device Integration Operational Testing	
<b>Special Operations Tactical Video System</b>	
System Integration Operational Testing	
<b>Special Operations Forces Planning, Rehearsal &amp; Execution Preparation</b>	
Test and Evaluation of Prototype Systems	
<b>Integrated Survey Program</b>	
System Integration Operational Testing	
<b>Sensitive Site Exploitation</b>	
System Integration Operational Testing	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160405BB / <i>Intelligence Systems Development</i>	<b>Project (Number/Name)</b> S400 / <i>SO Intelligence Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>National Systems Support to SOF Participation in Space Technology Dev and Demo</i></b>				
National System Support to SOF Participation in Space technology Dev and Demo	1	2014	4	2020
<b><i>Joint Threat Warning System</i></b>				
Air Variant Development, Test and Evaluation	1	2014	4	2020
Ground Sigint Kit Variant Development, Test and Evaluation	1	2014	4	2020
Maritime Variant Development, Test and Evaluation	1	2014	4	2020
<b><i>Hostile Forces - Tagging, Tracking, and Locating</i></b>				
Device Integration Operational Testing	2	2015	4	2020
<b><i>Special Operations Tactical Video System</i></b>				
System Integration Operational Testing	2	2014	4	2020
<b><i>Special Operations Forces Planning, Rehearsal &amp; Execution Preparation</i></b>				
Test and Evaluation of Prototype Systems	2	2016	4	2020
<b><i>Integrated Survey Program</i></b>				
System Integration Operational Testing	2	2015	4	2020
<b><i>Sensitive Site Exploitation</i></b>				
System Integration Operational Testing	1	2016	4	2020



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160408BB / <i>Operational Enhancements</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	667.189	42.492	81.253	63.008	-	63.008	61.153	67.037	68.514	69.704	Continuing	Continuing
S500A: <i>Operational Enhancements</i>	667.189	42.492	81.253	63.008	-	63.008	61.153	67.037	68.514	69.704	Continuing	Continuing

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

Details are provided under separate cover.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	42.492	75.253	63.128	-	63.128
Current President's Budget	42.492	81.253	63.008	-	63.008
Total Adjustments	-	6.000	-0.120	-	-0.120
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.120	-	-0.120
• Overseas Contingency Operations	-	6.000	-	-	-

**Change Summary Explanation**

Funding:

FY2014: None.

FY2015: Details of \$6.000 million increase of Overseas Contingency Operations funding available under separate cover.

FY2016: Details of \$0.120 million decrease is available under separate cover.

Schedule: None.

Technical: None.

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**Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	15.691	20.573	25.342	-	25.342	20.243	17.875	16.182	20.520	Continuing	Continuing
<i>S710: Tactical Systems Development</i>	0.000	0.243	1.023	0.968	-	0.968	1.330	1.095	1.183	1.080	Continuing	Continuing
<i>S700: Communications Equipment and Electronics Systems</i>	0.000	3.264	4.230	6.352	-	6.352	6.266	6.379	6.495	7.579	Continuing	Continuing
<i>S725: Tactical Radio Systems</i>	0.000	1.811	3.670	2.618	-	2.618	1.692	1.687	1.710	4.717	Continuing	Continuing
<i>S385: Soldier Protection and Survival Systems</i>	0.000	2.441	2.554	2.898	-	2.898	2.096	1.871	2.372	2.348	Continuing	Continuing
<i>S385A: Body Armor and Associated Equipment</i>	0.000	1.504	1.973	1.547	-	1.547	1.349	1.299	1.299	1.649	Continuing	Continuing
<i>S395: Visual Augmentation, Lasers and Sensor Systems</i>	0.000	-	1.709	2.333	-	2.333	0.743	-	-	-	Continuing	Continuing
<i>S800: Munitions Advanced Development</i>	0.000	3.386	0.519	0.522	-	0.522	0.529	0.535	0.541	0.542	Continuing	Continuing
<i>D476: Military Information Support Operations</i>	0.000	2.477	4.895	6.610	-	6.610	4.746	3.517	1.096	1.118	Continuing	Continuing
<i>S375: Weapons Systems</i>	-	0.565	-	1.494	-	1.494	1.492	1.492	1.486	1.487	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. 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,

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	
<p>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.</p> <p>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.</p> <p><b>Tactical Systems Development:</b> 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.</p> <p><b>Communications Equipment and Electronics Systems:</b> 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.</p> <p><b>Tactical Radio Systems:</b> 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 overseas contingency operations (OCO) 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.</p> <p><b>Weapons Systems:</b> 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.</p> <p><b>Soldier Protection and Survival Systems:</b></p>		

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
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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 improvements and testing to meet continually changing technology on the battlefield.

**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 (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 to meet current ballistic threats that exists 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.

**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.

**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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	14.973	24.661	25.963	-	25.963
Current President's Budget	15.691	20.573	25.342	-	25.342
Total Adjustments	0.718	-4.088	-0.621	-	-0.621
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.088			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.718	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.621	-	-0.621

**Change Summary Explanation**

Funding:

FY2014: Net increase of \$0.718 million is for a reprogramming of \$0.566 million to support development and testing of the SPEAR program, \$0.182 million to support testing for signature reduction efforts in a Weapons Accessories program; and a reprogramming (-\$0.030 million) to support higher command priorities.

FY2015: Decrease of -\$4.088 million is due to a Congressional Directed Reduction to the Long range MISO program.

FY2016: Decrease of -\$0.621 million is due to a realignment of -\$0.437 million to higher command priorities and a decrease of -\$0.184 million due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
<i>S710: Tactical Systems Development</i>	-	0.243	1.023	0.968	-	0.968	1.330	1.095	1.183	1.080	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 project 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 2014	FY 2015	FY 2016
<b>Title:</b> TACLAN Suites	0.243	1.023	0.968
<b>FY 2014 Accomplishments:</b> Begin development, integration, and testing of Evolutionary Technology Insertions (ETI) such as advanced hardware equipment and new software applications.			
<b>FY 2015 Plans:</b> Begin development, integration, and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.			
<b>FY 2016 Plans:</b> Continues development, integration, and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.243	1.023	0.968

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC: <i>OTHER ITEMS &lt;\$5M</i>	73.141	106.675	79.149	-	79.149	70.287	71.149	84.526	80.958	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**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





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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>TACLAN SUITES</b>	
Secure Data / Wireless Capability	[REDACTED]

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>TACLAN SUITES</b>				
Secure Data / Wireless Capability	2	2014	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S700: Communications Equipment and Electronics Systems</i>	-	3.264	4.230	6.352	-	6.352	6.266	6.379	6.495	7.579	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.

- The Special Communications Enterprise (SCE) program 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. This program transitioned from Program Element 1160402BB, Special Operations Advanced Technology Development.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SDN	1.092	2.394	2.806
<b>FY 2014 Accomplishments:</b> Continued to develop, test and evaluate next generation systems and components to enhance the SDN family of systems and integrate Evolutionary Technology Insertions (ETI), such as a wide-band SATCOM-on-the-Move ground capability, extension of SOF Information Enterprise services, and acceleration hardware and software.			
<b>FY 2015 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Assess, test and evaluate advanced antenna design and performance. Conduct market research on multi-level security solutions for SDN application. Conduct testing using wideband global SATCOM and Global Express. Assess Advanced Extremely High Frequency band. <b>FY 2016 Plans:</b> Assesses, tests and evaluates advanced antenna design and performance. Continues to integrate ETIs.			
<b>Title:</b> SCE <b>FY 2014 Accomplishments:</b> Began segment development for the SCE enterprise; developed means and methods to provide near-term impact to operators. <b>FY 2015 Plans:</b> Continue segment development for the SCE enterprise; develop means and methods to provide near-term impact to operators. <b>FY 2016 Plans:</b> Continues segment development for the SCE enterprise; develops means and methods to provide near-term impact to operators. Increases emphasis on developing anti-intrusion/anti-tamper capabilities.	2.172	1.836	3.546
<b>Accomplishments/Planned Programs Subtotals</b>	3.264	4.230	6.352

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

<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204Warrior: <i>Warrior Systems&lt;\$5M</i>	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	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.
- SCE 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Deployable Node (SDN) Development	MIPR	Various : Various	0.000	1.092	Mar 2014	1.194	Mar 2015	1.496	Mar 2016	-		1.496	Continuing	Continuing	-
SDN Market Research & Evaluation	MIPR	CERDEC : Aberdeen, MD	0.000	-		1.200	Jan 2015	1.310	Dec 2015	-		1.310	Continuing	Continuing	-
Special Communications Enterprise (SCE) Enterprise and Field Segment Capability Development	TBD	Various : Various	0.000	1.612	Jan 2014	1.272	Jan 2015	2.978	Feb 2016	-		2.978	Continuing	Continuing	-
SCE Base End Segment Capability Development	MIPR	MITRE : Bedford, MA	0.000	0.280	Dec 2013	0.282	Dec 2014	0.284	Dec 2015	-		0.284	Continuing	Continuing	-
<b>Subtotal</b>			0.000	2.984		3.948		6.068		-		6.068	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SCE Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.000	0.280	Mar 2014	0.282	Mar 2015	0.284	Mar 2016	-		0.284	Continuing	Continuing	-
<b>Subtotal</b>			0.000	0.280		0.282		0.284		-		0.284	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	3.264	4.230	6.352	-	6.352	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>SOF Deployable Node</i></b>																												
SOF Deployable Node (SDN) Development																												
SDN Market Research and Testing																												
<b><i>Special Communications Enterprise (SCE) Program</i></b>																												
Enterprise Segment Services Development																												
Field Segment Kit Development																												
Base-End Segment Capabilities Development																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S700 / <i>Communications Equipment and Electronics Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Deployable Node</i></b>				
SOF Deployable Node (SDN) Development	2	2014	4	2020
SDN Market Research and Testing	2	2015	4	2020
<b><i>Special Communications Enterprise (SCE) Program</i></b>				
Enterprise Segment Services Development	2	2014	4	2020
Field Segment Kit Development	2	2014	4	2020
Base-End Segment Capabilities Development	2	2014	4	2020

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

Appropriation/Budget Activity					R-1 Program Element (Number/Name)				Project (Number/Name)			
0400 / 7					PE 1160431BB / <i>Warrior Systems</i>				S725 / <i>Tactical Radio Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S725: <i>Tactical Radio Systems</i>	-	1.811	3.670	2.618	-	2.618	1.692	1.687	1.710	4.717	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project is for 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 overseas contingency operations (OCO) 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, 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 2014	FY 2015	FY 2016
<b>Title:</b> SOF Tactical Communications (STC)	1.811	1.672	1.653
<b>FY 2014 Accomplishments:</b> Continued developing and testing DoD on-orbit capacity in order to enhance C2 capabilities.			
<b>FY 2015 Plans:</b> Develop and test new capability in tactical radio equipment.			
<b>FY 2016 Plans:</b> Develops and tests new capability in tactical radio equipment.			
<b>Title:</b> Blue Force Tracking (BFT)	-	1.998	0.965
<b>FY 2015 Plans:</b> Develop and test new capability in BFT equipment.			
<b>FY 2016 Plans:</b> Continues to develop and test new capability in BFT equipment.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.811	3.670	2.618

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 0204Warrior: <i>Warrior Systems</i> <\$5M	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S725 / <i>Tactical Radio Systems</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**Remarks**

**D. Acquisition Strategy**

- STC is a Commercial-Off-The-Shelf/Now-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.



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>SOF Tactical Communications (STC)</i></b>	
STC Radio Development	
<b><i>Blue Force Tracking (BFT)</i></b>	
BFT Capability Improvement Development	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S725 / <i>Tactical Radio Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Tactical Communications (STC)</i></b>				
STC Radio Development	2	2014	4	2020
<b><i>Blue Force Tracking (BFT)</i></b>				
BFT Capability Improvement Development	3	2015	2	2017

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S385: <i>Soldier Protection and Survival Systems</i>	-	2.441	2.554	2.898	-	2.898	2.096	1.871	2.372	2.348	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project provides specialized equipment to meet the unique soldier 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 Forces Special Operations Command. 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 radio controlled improvised explosive devices threats used by terrorist networks.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SPEAR	1.080	0.917	1.384
<b>FY 2014 Accomplishments:</b>			
Continued profile refinement to support signature management, reactive fiber testing and material research for uniforms.			
Continued research and development solicitation for an advanced maritime communications system material solution. Continued			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements.</p> <p><b>FY 2015 Plans:</b> Continue profile refinement to support signature management and material research for uniforms. Continue testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements. Continue on-going prototype testing. Address emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus. Continue maritime communication headset solicitation.</p> <p><b>FY 2016 Plans:</b> Initiates research and development of a land communications material solution, safety belt and lanyard solicitations, Arctic capability gap solutions, and subsurface operations equipment. Continues materials testing.</p>			
<p><b>Title:</b> TCCC</p> <p><b>FY 2014 Accomplishments:</b> Provided for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Evaluated lightweight enhanced patient packaging litter systems for inclusion in the CASEVAC. 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.</p> <p><b>FY 2015 Plans:</b> 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. Continue evaluation, airworthiness certification and miniaturization of TCCC CASEVAC components. Support 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.</p> <p><b>FY 2016 Plans:</b> 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. Supports the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC. Develops and tests water resistant solutions for maritime operations of components within the CASEVAC.</p>	0.333	0.560	0.444
<p><b>Title:</b> RC-IED</p> <p><b>FY 2014 Accomplishments:</b></p>	1.028	1.077	1.070



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>Provided for National Assessment Group 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 range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems.</p> <p><b>FY 2015 Plans:</b> Provide for National Assessment Group 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 range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems.</p> <p><b>FY 2016 Plans:</b> Provide for National Assessment Group 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. Initiates development and testing of ECM systems capability and advanced software technique counter measures.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	2.441	2.554	2.898

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1: <i>Warrior Systems</i> <\$5M	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S385 / Soldier Protection and Survival Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SOF Personal Equipment Advanced Requirements (SPEAR) - MICH/Land Maritime Communication System	Various	PM-SSES : Natick, MA	0.000	0.218	Jun 2014	0.240	Mar 2015	0.415	Jan 2016	-		0.415	Continuing	Continuing	-
SPEAR - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.000	0.100	Apr 2014	0.095	Feb 2015	0.139	Jan 2016	-		0.139	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.000	0.035	Feb 2014	-		-		-		-	-	0.035	-
SPEAR - Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.000	0.040	Apr 2014	-		-		-		-	-	0.040	-
<b>Subtotal</b>			0.000	0.393		0.335		0.554		-		0.554	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SPEAR - PCU testing/P3I	Various	PM/SSES : Natick, MA	0.000	0.135	Jun 2014	0.050	Jan 2015	0.070	Mar 2016	-		0.070	Continuing	Continuing	-
SPEAR - Signature Management Profile Characteristics	Various	PM-SSES : Natick, MA	0.000	0.065	Jun 2014	0.065	Jan 2015	0.097	Feb 2016	-		0.097	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Testing	Various	PM-SSES : Natick, MA	0.000	0.020	Apr 2014	0.018	Jan 2015	0.028	Feb 2016	-		0.028	Continuing	Continuing	-
SPEAR - MGS Testing	Various	PM-SSES : Natick, MA	0.000	0.025	May 2014	0.025	Feb 2015	0.043	Feb 2016	-		0.043	Continuing	Continuing	-
SPEAR - Maritime Comms Testing	Various	PM-SSES : Natick, MA	0.000	0.442	May 2014	0.424	Feb 2015	0.592	Jan 2016	-		0.592	Continuing	Continuing	-
TCCC CASEVAC Sets	Various	PM-SSES : Natick, Ma	0.000	0.333	Mar 2014	0.560	Feb 2015	0.444	Mar 2016	-		0.444	Continuing	Continuing	-



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

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

<b><i>SPEAR-Protective Combat Uniform (PCU)</i></b>																												
PCU Testing/Development																												
<b><i>SPEAR-Signature Management</i></b>																												
Signature Management Profile Characterization																												
<b><i>SPEAR-Modular Glove System</i></b>																												
Development and Test																												
<b><i>SPEAR-MICH Comms</i></b>																												
Market Research/Interoperability Assessment																												
<b><i>SPEAR-Maritime Comms</i></b>																												
Various tests																												
<b><i>SPEAR-Load Carriage System/Vests and Backpacks</i></b>																												
Material Research and Prototype testing																												
<b><i>Tactical Combat Casualty Care Evacuation Kits -CASEVAC</i></b>																												
Prototype development testing and Airworthiness Certification																												
<b><i>Radio Controlled-Improvised Explosive Device</i></b>																												
National Assessment Group Test Support																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SPEAR-Protective Combat Uniform (PCU)</i></b>				
PCU Testing/Development	3	2014	3	2020
<b><i>SPEAR-Signature Management</i></b>				
Signature Management Profile Characterization	3	2014	2	2020
<b><i>SPEAR-Modular Glove System</i></b>				
Development and Test	3	2014	2	2020
<b><i>SPEAR-MICH Comms</i></b>				
Market Research/Interoperability Assessment	3	2014	4	2020
<b><i>SPEAR-Maritime Comms</i></b>				
Various tests	3	2014	4	2020
<b><i>SPEAR-Load Carriage System/Vests and Backpacks</i></b>				
Material Research and Prototype testing	3	2014	4	2020
<b><i>Tactical Combat Casualty Care Evacuation Kits -CASEVAC</i></b>				
Prototype development testing and Airworthiness Certification	2	2014	4	2020
<b><i>Radio Controlled-Improvised Explosive Device</i></b>				
National Assessment Group Test Support	2	2014	4	2020

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S385A: <i>Body Armor and Associated Equipment</i>	-	1.504	1.973	1.547	-	1.547	1.349	1.299	1.299	1.649	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project provides specialized equipment to meet the unique soldier 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 Forces Special Operations Command. Specialized ballistic equipment improves survivability and load bearing equipment 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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> SPEAR-Ballistic Protection	1.504	1.973	1.547
<b>FY 2014 Accomplishments:</b> Continued foreign ammunition testing and threat validation to assess armor effectiveness. Continued the helmet behind armor effects studies to develop a helmet test methodology and corresponding performance metrics. Continued lightweight body armor material research and testing to include clandestine. 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. Tested mature soldier worn sensors and non-destructive inspection technologies.			
<b>FY 2015 Plans:</b> Continue foreign ammunition testing and threat validation to assess armor effectiveness. Research and test soldier worn sensors. Continue lightweight body armor material research and improved performance ballistic plates. Continue evaluation of transparent armor products which include ballistic and optical testing of photochromic, electrochromic and laser lenses. Continue work on anti-fogging technologies and testing. Address emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus.			
<b>FY 2016 Plans:</b> Continues foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continues development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continues evaluation of transparent armor products which include variable light transmission, anti-fogging, ballistic, and			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
laser lenses to upgrade systems that have been fielded. Develops and tests soldier worn sensors to upgrade armor systems that have been fielded and to refine SOF peculiar requirements. Addresses emerging SOF unique requirements as SOF transitions from deployments in Iraq and Afghanistan to a global focus.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.504	1.973	1.547

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC1: <i>Warrior Systems</i> <\$5M	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	0.000	0.350	Apr 2014	0.300	Feb 2015	0.421	Jan 2016	-		0.421	-	-	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	0.000	0.300	May 2014	0.600	Jan 2015	0.365	Jan 2016	-		0.365	-	-	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.000	0.030	May 2014	0.040	Feb 2015	0.150	Mar 2016	-		0.150	-	-	-
<b>Subtotal</b>			0.000	0.680		0.940		0.936		-		0.936	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SPEAR - Body Armor Test	Various	PM-SSES : Natick, MA	0.000	0.489	Mar 2014	0.250	Jan 2015	0.211	Feb 2016	-		0.211	-	-	-
SPEAR - Lightweight Helmet Testing	Various	PM-SSES : Natick, MA	0.000	0.300	Mar 2014	0.725	Jan 2015	0.350	Feb 2016	-		0.350	-	-	-
SPEAR - Transparent Armor Testing	Various	PM-SSES : Natick, MA	0.000	0.035	Mar 2014	0.058	Mar 2015	0.050	Jan 2016	-		0.050	-	-	-
<b>Subtotal</b>			0.000	0.824		1.033		0.611		-		0.611	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		0.000	1.504	1.973	1.547	1.547	-	-	-

**Remarks**



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>	

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

<b><i>SOF Personal Equipment Advanced Requirements (SPEAR)-Body Armor</i></b>	
Body Armor Development	
Body Armor Material Testing	
<b><i>SPEAR Eye Protection</i></b>	
Transparent Armor Development	
Transparent Armor Testing	
<b><i>SPEAR-Helmet</i></b>	
Lightweight Ballistic Helmet Development	
Lightweight Ballistic Helmet Materials Testing	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Personal Equipment Advanced Requirements (SPEAR)-Body Armor</i></b>				
Body Armor Development	3	2014	4	2020
Body Armor Material Testing	2	2014	3	2020
<b><i>SPEAR Eye Protection</i></b>				
Transparent Armor Development	3	2014	4	2020
Transparent Armor Testing	2	2014	4	2020
<b><i>SPEAR-Helmet</i></b>				
Lightweight Ballistic Helmet Development	3	2014	4	2020
Lightweight Ballistic Helmet Materials Testing	2	2014	2	2020

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	-	-	1.709	2.333	-	2.333	0.743	-	-	-	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 2014	FY 2015	FY 2016
<b>Title:</b> Visual Augmentation Systems	-	1.709	2.333
<b>FY 2015 Plans:</b> Continue the development of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.			
<b>FY 2016 Plans:</b> Continues to develop visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	1.709	2.333

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC/1: <i>Warrior Systems</i> <\$5M	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

To 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 and an Indefinite Delivery Indefinite Quantity production contract.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

<b><u>E. Performance Metrics</u></b> N/A
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Visual Augmentation System (VAS)</i></b>				
VAS Development	2	2015	4	2016
VAS Testing	3	2016	3	2017

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S800: <i>Munitions Advanced Development</i>	-	3.386	0.519	0.522	-	0.522	0.529	0.535	0.541	0.542	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 allows 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 development and improvement of SOF-unique SOPGMs.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Munitions Advanced Development	0.453	0.519	0.522
<b>FY 2014 Accomplishments:</b> 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).			
<b>FY 2015 Plans:</b> 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).			
<b>FY 2016 Plans:</b> Conducts proof of concept and IM testing on various munitions. 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).			
<b>Title:</b> SOPGM	2.933	-	-
<b>FY 2014 Accomplishments:</b>			



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
Completed efforts to integrate target seeker, warhead and guidance system technology upgrades for precision guided munitions, and evaluates first pass lethality performance improvements in laboratory and test range inert round, captive carry and live-fire flight tests.			
<b>Accomplishments/Planned Programs Subtotals</b>	3.386	0.519	0.522

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

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: <i>Ordnance Items</i>	168.037	173.209	142.724	-	142.724	133.977	125.920	148.245	151.383	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.

SOPGM: Using incremental approach to increase munitions performance, leverage industry's Internal Research and Development innovative efforts and existing and new contracts to improve warhead, seeker, guidance navigation and control system, and missile delivery packaging. Solutions will be tested at comparative demonstrations and/or flight test events.

**E. Performance Metrics**  
N/A



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Munitions Advanced Development</i></b>	
Purchase Test Articles	
Evaluation of Munition test articles	
Munitions Testing	
<b><i>Stand-Off Precision Guided Munitions</i></b>	
Evaluate Lethality Upgrades	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Munitions Advanced Development</i></b>				
Purchase Test Articles	2	2014	4	2020
Evaluation of Munition test articles	2	2014	4	2020
Munitions Testing	2	2014	4	2020
<b><i>Stand-Off Precision Guided Munitions</i></b>				
Evaluate Lethality Upgrades	4	2014	4	2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D476: <i>Military Information Support Operations</i>	-	2.477	4.895	6.610	-	6.610	4.746	3.517	1.096	1.118	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), and television (TV) transmitters, and radio/TV production systems.
- LRBS is a family of broadcast systems intended to be integrated to multiple 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 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.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Media Production and Broadcast System	2.477	2.280	2.074
<b>FY 2014 Accomplishments:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Continued primary hardware development, systems engineering, and test and evaluation on product distribution technology. Tested and evaluated new systems and components to enhance MISO product. Integrated and disseminated new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements. <b>FY 2015 Plans:</b> Continue primary hardware development, systems engineering, and test and evaluation on product distribution technology. 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. <b>FY 2016 Plans:</b> Tests and evaluates new systems and components to enhance MISO product. Integrates and disseminates new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements.			
<b>Title:</b> LRBS <b>FY 2015 Plans:</b> Begin primary hardware development, system engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies. <b>FY 2016 Plans:</b> Continues with primary hardware development, systems engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies.	-	1.416	4.536
<b>Title:</b> PDS <b>FY 2015 Plans:</b> Continue to evaluate advance technology, and test and evaluate new PDS / SOF Deployable Node (SDN-P) components integrating audio/visual capabilities for enhanced distribution and delivery of MISO products.	-	1.199	-
<b>Accomplishments/Planned Programs Subtotals</b>	2.477	4.895	6.610

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1/0204OTHER: OTHER ITEMS <\$5M	73.141	106.675	79.149	-	79.149	70.287	71.149	84.526	80.958	Continuing	Continuing

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

**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 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 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.

**E. Performance Metrics**

N/A.





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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

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

<b>Media Production and Broadcast Systems</b>	
Hardware development and systems engineering	[REDACTED]
<b>Long Range Broadcast System</b>	
Material Research and Prototype	[REDACTED]
<b>Product Distribution System</b>	
Hardware Development and Evaluation	[REDACTED]

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Media Production and Broadcast Systems</i></b>				
Hardware development and systems engineering	2	2014	4	2018
<b><i>Long Range Broadcast System</i></b>				
Material Research and Prototype	3	2015	4	2020
<b><i>Product Distribution System</i></b>				
Hardware Development and Evaluation	3	2015	2	2016

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S375: <i>Weapons Systems</i>	-	0.565	-	1.494	-	1.494	1.492	1.492	1.486	1.487	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project provides for development and testing of specialized, individual, assault, crew-served weapons, and fire control/surveillance devices to meet the unique requirements of Special Operations Forces (SOF). SOF often deploys as small, independent, quick reaction, foot-mobile teams independent of primary logistics support. Existing weapons and combat equipment are frequently unsuited to these conditions. This project enhances all SOF weapons, both individual and crew served, by leveraging the latest technological advances in optional accessories (up to 30 different functions/capabilities) such as day scopes, clip-on night scopes, active aiming laser module, visible lights, grenade launchers, suppressors, hand grips, and close quarters battle sights. Miniature Day-Night Sight for Crew-served Weapons enhances all SOF weapons, by leveraging existing image intensification and thermal technology to improve combat effectiveness for all crew served weapon systems. Development efforts include test and evaluation of the Advanced Target Pointer Illuminator Aiming Laser hardening to withstand the live-fire shock profiles for the Combat Assault Rifle along with other improvements, Visual Augmentation Systems, and Family of Muzzle Breaks and Suppressors. Leveraging extensive modeling and simulation efforts executed by National Labs, competitively award RDT&E contracts to select vendors to develop suppressors and flashhiders for select SOF weapon systems. These accessories greatly improve the combat effectiveness of the weapon systems and the survivability of the SOF operator.

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

	FY 2014	FY 2015	FY 2016
<b>Title:</b> Weapons Accessory (WPNAC)	0.565	-	1.494
<b>FY 2014 Accomplishments:</b> Continued small arms signature reduction development and testing.			
<b>FY 2016 Plans:</b> Develops enhanced capabilities to improve performance of individual and crew serve SOF weapons.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.565	-	1.494

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC1: <i>Warrior Systems</i> <\$5M	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing
<b>Remarks</b>											

**D. Acquisition Strategy**

Weapons accessory development will take place within government laboratories as well as industry depending on the weapons system.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160431BB / <i>Warrior Systems</i>	S375 / <i>Weapons Systems</i>

**E. Performance Metrics**

N/A





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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Weapons Systems</i></b>				
Small Arms Signature Reduction Development	3	2014	3	2015
Small Arms Signature Reduction Qualification	1	2016	4	2020
Small Arms Weapon Improvement Development	2	2016	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160432BB / <i>Special Programs</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	Continuing	Continuing
S500E: <i>Special Programs</i>	0.000	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	7.185	20.908	3.124	-	3.124
Current President's Budget	7.185	20.908	3.401	-	3.401
Total Adjustments	-	-	0.277	-	0.277
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.277	-	0.277

**Change Summary Explanation**

Funding:

FY2014: None.

FY2015: None.

FY2016: Net increase of \$0.277 million is due to a decrease of \$0.025 million for a Departmental economic assumption decrease and a realignment of \$0.302 million increase available under separate cover document.

Schedule: None.

Technical: None.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160432BB / <i>Special Programs</i>				<b>Project (Number/Name)</b> S500E / <i>Special Programs</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S500E: <i>Special Programs</i>	-	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Other Classified Programs	7.185	20.908	3.401
<b>Description:</b> Program details available under separate cover document.			
<b>FY 2014 Accomplishments:</b> Program details available under separate cover document.			
<b>FY 2015 Plans:</b> Program details available under separate cover document.			
<b>FY 2016 Plans:</b> Program details available under separate cover document.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.185	20.908	3.401

**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-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160432BB / <i>Special Programs</i>	<b>Project (Number/Name)</b> S500E / <i>Special Programs</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Other Classified Programs</i></b>	
Other Classified Programs	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160432BB / <i>Special Programs</i>	<b>Project (Number/Name)</b> S500E / <i>Special Programs</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Other Classified Programs</i></b>				
Other Classified Programs	1	2014	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	Continuing	Continuing
S910: <i>SOF Tactical Vehicles</i>	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	2.135	3.672	3.235	-	3.235
Current President's Budget	2.135	3.672	3.212	-	3.212
Total Adjustments	-	-	-0.023	-	-0.023
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.023	-	-0.023

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: None.

FY 2016: Decrease of -\$0.023 million is due to a Departmental economic assumption decrease.

Schedule: None.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160480BB / <i>SOF Tactical Vehicles</i>

Technical: None.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>				<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S910: <i>SOF Tactical Vehicles</i>	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	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 Vehicles (Medium) effort which provides for a medium vehicle variant capable of meeting specific requirements of internal aircraft transport on the C/MH47 and CV-22. 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. The Mine Resistant Ambush Protected (MRAP) Vehicle Kit. Effort provides design, prototyping, testing and installation manual development of SOF peculiar integration kits for multiple models of Service-common MRAPs employed by SOF. Kits will enable SOF unique C4ISR installation and Common Remotely Operated Weapon Station integration to service-common MRAPs.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Family of Special Operations Vehicle	2.135	3.672	3.212
<b>FY 2014 Accomplishments:</b> Continued development of ECPs that implement incremental upgrades and improve the design of FSOV GMV medium. The ECPs include adding heating, ventilation, air condition systems, installed electrical receptacles, infrared flood lamps, combat overrides, rear-mounted swivel pintles, safety chains to make vehicle towing capable, gunner restraints, cargo tie-downs, and weapon stowage provisions to the GMV medium vehicles. Completed development, prototyping and testing of FSOV GMV medium.			
<b>FY 2015 Plans:</b>			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
Continue integration of ECPs that implement incremental upgrades and improve the design of the light and medium mobility vehicles. Efforts include Initial Operational Test and Evaluation (IOT&E) of FSOV GMV medium. Continue enhancements/modifications on the NSCV to improve reliability and survivability.			
<b><i>FY 2016 Plans:</i></b> Continues integration of ECPs that implement incremental upgrades and improve the design of the light and ground mobility vehicles (medium). Continues enhancements/modifications on the NSCV to improve reliability and survivability and engineering design changes.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.135	3.672	3.212

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC: <i>Tactical Vehicles</i>	37.353	63.134	73.520	-	73.520	70.432	65.489	67.843	67.851	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

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FSOV Ground Mobility Vehicles (GMV) Medium Engineering Change Proposal (ECP) Development	MIPR	Naval Air Systems Command : Patuxent River, MD	2.246	0.231	Nov 2013	-		-		-		-	-	2.477	-
FSOV GMV Medium Enviro	WR	TARDEC : Warren, Michigan	0.036	0.054	Nov 2013	-		-		-		-	-	0.090	-
FSOV GMV Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	4.900	1.658	Sep 2013	-		2.297	Jun 2016	-		2.297	Continuing	Continuing	-
FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development	MIPR	TBD : TBD	0.381	-		-		0.312	Oct 2015	-		0.312	Continuing	Continuing	-
FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction	MIPR	USSOCOM : Tampa, FL	0.807	-		-		0.603	Jun 2016	-		0.603	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	0.383	-		-		-		-		-	-	0.383	-
<b>Subtotal</b>			8.753	1.943		-		3.212		-		3.212	-	-	-

<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FSOV GMV Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	-	-		1.500	Jun 2015	-		-		-	-	1.500	-
FSOV LTATV ECP Development	MIPR	TBD : TBD	-	-		0.372	Oct 2014	-		-		-	-	0.372	-
FSOV NSCV ECP	MIPR	HQ USSOCOM : Tampa, FL	-	-		0.700	Jun 2015	-		-		-	-	0.700	-
Prior Year Funding	Various	Various : Various	3.910	-		-		-		-		-	-	3.910	-



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>FSOV Ground Mobility Vehicles (GMV Medium) ECP Development and C4 Integration</i></b>																												
FSOV GMV (Medium) ECP Development and C4 Integration																												
<b><i>FSOV GMV (Medium) Armor Coupon Testing</i></b>																												
FSOV GMV (Medium) Armor Coupon Testing																												
<b><i>FSOV GMV (Medium) Test Support</i></b>																												
FSOV GMV (Medium) Test Support																												
FSOV GMV (Medium) IOT&E																												
<b><i>FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development</i></b>																												
FSOV LTATV ECP Development																												
<b><i>FSOV GMV (Medium) Enviro</i></b>																												
FSOV GMV (Medium) Enviro																												
<b><i>FSOV GMV (Medium) ECP Development</i></b>																												
FSOV GMV (Medium) ECP Development																												
<b><i>FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction</i></b>																												
FSOV NSCV ECP Development/Signature Reduction																												

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160480BB / <i>SOF Tactical Vehicles</i>	<b>Project (Number/Name)</b> S910 / <i>SOF Tactical Vehicles</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>FSOV Ground Mobility Vehicles (GMV Medium) ECP Development and C4 Integration</i></b>				
FSOV GMV (Medium) ECP Development and C4 Integration	1	2014	2	2014
<b><i>FSOV GMV (Medium) Armor Coupon Testing</i></b>				
FSOV GMV (Medium) Armor Coupon Testing	1	2014	4	2014
<b><i>FSOV GMV (Medium) Test Support</i></b>				
FSOV GMV (Medium) Test Support	3	2015	4	2015
FSOV GMV (Medium) IOT&E	3	2015	4	2015
<b><i>FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development</i></b>				
FSOV LTATV ECP Development	1	2015	4	2020
<b><i>FSOV GMV (Medium) Enviro</i></b>				
FSOV GMV (Medium) Enviro	1	2014	1	2015
<b><i>FSOV GMV (Medium) ECP Development</i></b>				
FSOV GMV (Medium) ECP Development	1	2014	4	2020
<b><i>FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction</i></b>				
FSOV NSCV ECP Development/Signature Reduction	3	2015	4	2020

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	202.398	28.724	56.746	63.597	-	63.597	52.590	12.864	5.529	12.328	Continuing	Continuing
S0417: <i>Underwater Systems</i>	202.398	21.652	45.823	56.328	-	56.328	49.037	9.505	1.345	4.530	Continuing	Continuing
S1684: <i>Surface Craft</i>	0.000	7.072	10.923	7.269	-	7.269	3.553	3.359	4.184	7.798	Continuing	Continuing

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

This program element provides for engineering & manufacturing development and operational 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 (COTS) technologies and new development efforts.

The Underwater Systems project provides for engineering and manufacturing development and operational systems development of combat underwater submersibles and underwater support systems and equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by SOF in the conduct of infiltration/extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible 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 & manufacturing development and operational systems development of light, medium, and heavy surface combatant craft and selected items of specialized equipment to meet the unique requirements of SOF. This project element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development & 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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	28.724	57.905	19.624	-	19.624
Current President's Budget	28.724	56.746	63.597	-	63.597
Total Adjustments	-	-1.159	43.973	-	43.973
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.159			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	43.973	-	43.973

**Change Summary Explanation**

Funding:

FY 2014: None.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of \$1.159 million to the Next Generation Surface System program.

FY 2016: Net increase of \$43.973 million. Revised program strategy for the Dry Combat Submersible, increase of \$27.277 million to support the development of technology maturation of the DCS, increase of \$10.000 million for the modernization effort for the Dry Deck Shelter in order to transition from SSGN to Virginia Class host platform and increase capacity to carry larger payloads, increase of \$7.596 million to support engineering and testing for Shallow Water Combat Submersible (SWCS), decrease of (\$0.900) million to support higher command priorities, and a decrease of (\$0.461) million is due to a Departmental economic assumption decrease.

Schedule: Revisions to the Dry Combat Submersible schedule from a combined MS B/C to MS B and MS C decisions.

Technical: Added Dry Deck Shelter Modernization effort and SOF Combat Diving.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>				<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S0417: <i>Underwater Systems</i>	202.398	21.652	45.823	56.328	-	56.328	49.037	9.505	1.345	4.530	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project provides for engineering and manufacturing development and operational systems development of small combat underwater submersibles and underwater support systems and equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by Special Operations Forces (SOF) in the conduct of infiltration/extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible 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) (previously Block 1):** This project provides for the engineering, manufacturing, testing, and development of one Engineering Development Model (EDM) to replace the SEAL Delivery System (SDV). 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 and other diving technologies to meet SOF requirements.
- **Dry Combat Submersible (DCS):** This project provides for the advanced engineering, manufacturing, testing, and development efforts for a SOF DCS System. Current efforts are using commercial dry submersible prototypes to assess submersible capabilities and reduce risk in the DCS program. The DCS is planned to operate from surface ships. Two commercially built dry submersible prototypes are being manufactured and tested, as well as evaluation of a third leased vehicle. Significant risk reduction initiatives were added in FY 2013 which allowed for validation of test processes, commercial classification processes, and the development of the SOCOM safety certification process which permits SEALs to operate the submersibles. In addition, the prototypes will be used to evaluate the capability enhancing technologies in a relevant environment. Technologies include, but are not limited to Safe Li-Ion batteries, silver zinc batteries, improved sonar systems, advanced battery management system, and a three-dimensional Electro Optical Infrared (EO/IR) Periscope.
- **Dry Deck Shelter (DDS) Modernization:** This is an FY 2016 new start. This 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 is an FY 2016 new start. This project provides for the advanced engineering, manufacturing, testing, development and transition of SOF peculiar diving technologies for the SOF combat diver. Technologies include, but are not limited to commercial and developmental Underwater Breathing Apparatus (UBAs), diver thermal regulation systems, diver communication, tracking and monitoring systems, diver propulsion devices, diver auxiliary equipment and advance concept breathing mixture and procedure development.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> SWCS</p> <p><b>FY 2014 Accomplishments:</b> Completed design and initiated manufacturing of the EDM.</p> <p><b>FY 2015 Plans:</b> Begin EDM system-level development testing program phases.</p> <p><b>FY 2016 Plans:</b> Completes EDM development testing, certification and government acceptance. Incorporates any necessary engineering design changes and modifications to meet key performance parameters.</p>	12.844	11.801	7.596
<p><b>Title:</b> Dry Combat Submersibles (DCS)</p> <p><b>FY 2014 Accomplishments:</b> Completed design and build of one commercial prototype submersible, Button 5.60 prototype, and continued build of the S351 prototype. Initiated developmental test planning on Button 5.60 prototype.</p> <p><b>FY 2015 Plans:</b> Begin developmental testing of the two submersible prototypes.</p> <p><b>FY 2016 Plans:</b> Completes developmental testing on the prototypes. Initiates refit of one prototype submersible to be used as a training vessel and award an EMD contract for a production representative article.</p>	8.808	34.022	38.232
<p><b>Title:</b> Dry Deck Shelter (DDS) Modernization</p> <p><b>FY 2016 Plans:</b> This is an FY 2016 new start. Begins development of the modernization necessary to extend useful life, transition from SSGN to Virginia Class host platform, and increase capacity to carry other larger payloads.</p>	-	-	10.000
<p><b>Title:</b> SOF Combat Diving</p> <p><b>FY 2016 Plans:</b> This is an FY 2016 new start. Begins development of SOF peculiar diving technologies for transition to the SOF combat diver to include communication needs, underwater breathing apparatus modernization and thermal protection.</p>	-	-	0.500
<b>Accomplishments/Planned Programs Subtotals</b>	21.652	45.823	56.328

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC 1: <i>Underwater Systems</i>	15.439	25.459	32.521	-	32.521	40.756	89.131	55.145	7.394	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 used Broad Agency Announcements for Research and Development contracts leveraging commercial technologies, practices and safety classification standards to design, build, test and deliver prototypes to refine and validate potential key performance parameters and attributes for the DCS requirements baseline. The commercial classification of the prototypes will validate the technical maturity to support a milestone B decision. A competitive contract is planned in FY 2016 for an EMD contract for a production representative vessel. The full spectrum of contracting activities is being utilized for risk reduction efforts, using existing contracts where appropriate, government agencies and new contracts as necessary.
  
- DDS Modernization will use existing Dry Deck Shelter contracts to develop modernization efforts and execute configuration changes required to achieve performance requirements specified by the government.
  
- SOF Combat Diving: The full spectrum of contracting activities is planned to be utilized, using existing contracts where appropriate, government agencies, and leverage from the services. Equipment items are expected to be less than \$250 thousand and are anticipated to be purchased using Operations and Maintenance funding.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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<b>Product Development (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Shallow Water Combat Submersible (SWCS) (previously Block 1)	C/CPIF	Teledyne Brown Engineering : Huntsville, AL	-	2.604	May 2014	10.300	Dec 2014	7.000	Jan 2016	-		7.000	3.432	23.336	-
SWCS (Block 1)	C/Various	Various : Various	-	10.000	Jul 2014	-		-		-		-	-	10.000	-
SWCS Prior Year	C/Various	Various : Various	53.670	-		-		-		-		-	-	53.670	-
Dry Combat Submersibles (DCS) (Button 5.60 prototype)	C/Various	General Dynamic-Electric Boat : Groton, CT	22.857	2.546	Jun 2014	7.045	Jun 2015	-		-		-	-	32.448	-
DCS (S351 prototype)	C/FFP	Submergence Group : Chester, CT	22.700	0.375	Aug 2014	8.281	Feb 2015	-		-		-	-	31.356	-
DCS Technologies	C/Various	Various : Various	17.148	2.404	Jan 2014	6.436	Apr 2015	8.753	Jun 2016	-		8.753	12.006	46.747	-
DCS (EMD)	C/TBD	MacDill AFB : Tampa, FL	-	-		-		27.277	Jun 2016	-		27.277	31.063	58.340	-
DCS Prior Year Funding	Various	Multiple : Multiple	55.737	-		-		-		-		-	-	55.737	-
Dry Deck Shelter (DDS) Modernization	SS/CPFF	Oceaneering International Inc. Marine Services Division : Chesapeake, VA	-	-		-		9.650	Jan 2016	-		9.650	12.800	22.450	-
SOF Combat Diving	TBD	Various : Various	-	-		-		0.500	Mar 2016	-		0.500	2.149	2.649	-
<b>Subtotal</b>			172.112	17.929		32.062		53.180		-		53.180	61.450	336.733	-

<b>Support (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SWCS Prior Year Funding	Various	NSWC and NAVSEA : Panama City, FL and Washington, DC	4.165	-		-		-		-		-	-	4.165	-
DCS Prior Year Funding	Various	Various : Various	1.321	-		-		-		-		-	-	1.321	-
DDS Prior Year Funding	Various	Various / RAND : Various	3.608	-		-		-		-		-	-	3.608	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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<b>Support (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
<b>Subtotal</b>			9.094	-		-		-		-		-	-	9.094	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SWCS	Various	NSWC, NAVSEA : Panama City, FL/ Washington, DC	-	0.240	Jan 2014	1.125	Jan 2015	0.596	Jan 2016	-		0.596	-	1.961	-
DCS	C/Various	NAVSEA / CRANE : Panama City, FL	-	1.700	May 2014	10.460	Nov 2014	-		-		-	-	12.160	-
DCS Prior Year Funding	C/Various	Various : Various	9.320	-		-		-		-		-	-	9.320	-
<b>Subtotal</b>			9.320	1.940		11.585		0.596		-		0.596	-	23.441	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SWCS	Various	John Hopkins University : Columbia, MD	-	-		0.376	Oct 2014	-		-		-	-	0.376	-
SWCS Prior Year Funding	Various	John Hopkins University : Columbia, MD	6.200	-		-		-		-		-	-	6.200	-
DCS	Various	SRA : Tampa, FL	4.915	1.783	May 2014	1.800	May 2015	2.202	Jun 2016	-		2.202	2.195	12.895	-
DDS	MIPR	NAVSEA : Washington, DC	0.757	-		-		0.350	Jan 2016	-		0.350	0.700	1.807	-
<b>Subtotal</b>			11.872	1.783		2.176		2.552		-		2.552	2.895	21.278	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		202.398	21.652	45.823	56.328	-	56.328	64.345	390.546	-

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
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**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>Shallow Water Combat Submersible</i></b>	
Engineering & Manufacturing Development	
Developmental Test	
Milestone C	
Operational Test	
<b><i>Dry Combat Submersibles</i></b>	
Analysis, Component and Development Prototype, and Test	
Milestone B	
Acquisition Planning, Request for Proposals, and Source Selection	
Engineering and Manufacturing Development Phase	
Milestone C	
<b><i>Dry Deck Shelter Modernization</i></b>	
Preliminary Design Review	
Critical Design Review	
Engineering and Manufacturing Development	
Test and Evaluation	
<b><i>SOF Combat Diving</i></b>	
Risk Reduction Activities	
Integration/Demo/Test	
Technology Development	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S0417 / <i>Underwater Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Shallow Water Combat Submersible</i></b>				
Engineering & Manufacturing Development	1	2014	3	2016
Developmental Test	2	2014	3	2016
Milestone C	4	2015	4	2015
Operational Test	3	2016	4	2016
<b><i>Dry Combat Submersibles</i></b>				
Analysis, Component and Development Prototype, and Test	1	2014	2	2016
Milestone B	3	2015	3	2015
Acquisition Planning, Request for Proposals, and Source Selection	3	2015	2	2016
Engineering and Manufacturing Development Phase	3	2016	1	2019
Milestone C	4	2018	4	2018
<b><i>Dry Deck Shelter Modernization</i></b>				
Preliminary Design Review	2	2016	2	2016
Critical Design Review	4	2016	4	2016
Engineering and Manufacturing Development	3	2016	2	2018
Test and Evaluation	1	2018	4	2018
<b><i>SOF Combat Diving</i></b>				
Risk Reduction Activities	2	2016	4	2020
Integration/Demo/Test	2	2016	4	2020
Technology Development	3	2016	4	2020



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>				<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
S1684: <i>Surface Craft</i>	-	7.072	10.923	7.269	-	7.269	3.553	3.359	4.184	7.798	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

This project provides for engineering and manufacturing development, and operational systems development of light, medium, and heavy surface combatant craft and selected items of specialized equipment 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 surface craft and equipment. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. Sub-projects include:

The Combatant Craft Medium (CCM) provides SOF with a versatile, multi-mission surface maritime platform supporting the clandestine tactical movement of four crew and 19 combat equipped SOF in low to medium threat environments. It will incorporate additional performance capabilities above current platform capabilities such as shock mitigation, improved maneuverability and survivability characteristics.

The Combatant Craft Heavy (CCH) sub-project represents a family of solutions that will provide engineering support for design and specification of a development combatant craft for movement and maneuver of SOF personnel. Requirements include maneuverability, reduced detectability with enhanced shock mitigation, and human systems integration. The current solution for Combatant Craft Heavy is the Sea, Air, and Land Insertion, Observation and Neutralization (SEALION) that was developed as an advanced technology demonstrator by the United States Navy and has been modified and tested for transition to SOF operations. The CCH will provide medium range insertion capability for SOF personnel in a low to high threat environment.

The Next Generation Combatant Craft Forward Looking Infrared Radar (CCFLIR) Program provides SOF with day/night, high resolution, and additional spectrum imaging capabilities to augment existing optical and radar sensors. Technology insertion is needed to reduce the signature properties of the system and to enhance the detection, recognition, identification, and tracking of small and near surface targets and ships.

The Next Generation Surface Systems (NGSRF) sub-project provides a rapid response capability to support SOF Combatant Craft Systems and subsystems. The NGSRF will explore 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, 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 and navigation subsystems, and other minor modifications to craft in support of future missions. Solutions may be Commercial-Off-The-Shelf (COTS) solutions, leveraged from other agency solutions, or new solutions.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Combatant Craft Medium (CCM)	5.255	4.898	1.308

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b><i>FY 2014 Accomplishments:</i></b> Integrated sensor technologies into the CCM craft. Refurbished test article and began integration of sensor technology onto the craft.</p> <p><b><i>FY 2015 Plans:</i></b> Complete Operational Testing and continue development and integration of sub-systems including weapons and situational awareness systems.</p> <p><b><i>FY 2016 Plans:</i></b> Continues development and integration of advanced technologies including situational awareness, survivability, weapons, navigation and communication.</p>			
<p><b><i>Title:</i></b> Combatant Craft Heavy (CCH)</p> <p><b><i>FY 2014 Accomplishments:</i></b> Continued studies with craft design, development, and testing. Continued to test SEALION and perform modifications necessary to field an operational craft, received fielding and deployment release.</p> <p><b><i>FY 2015 Plans:</i></b> Continue development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication.</p> <p><b><i>FY 2016 Plans:</i></b> Continues development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication. Initiates studies and analysis for upgraded CCH craft.</p>	0.250	2.215	2.245
<p><b><i>Title:</i></b> Next Generation Combatant Craft Forward Looking Infrared Radar (CCFLIR)</p> <p><b><i>FY 2014 Accomplishments:</i></b> Completed market research and initiated plans to develop, test, and evaluate solutions for Next Generation CCFLIR systems. Developed acquisition strategy, initiated risk reduction activities, and prepared solicitation.</p> <p><b><i>FY 2015 Plans:</i></b> Complete source selection for prototype units for development testing. Develop and test Next Generation CCFLIR.</p> <p><b><i>FY 2016 Plans:</i></b> Completes testing and integrating with combatant craft systems.</p>	1.256	1.799	1.500
<p><b><i>Title:</i></b> Next Generation Surface System (NGSRF)</p> <p><b><i>FY 2014 Accomplishments:</i></b></p>	0.311	2.011	2.216

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Developed and started testing of a 360-degree persistent surveillance capability for Combatant Craft.			
<b><i>FY 2015 Plans:</i></b> Identify and evaluate candidate solutions for capability enhancements and insertion across Combatant Craft Systems. Conduct technology demonstration and development for integration across SOF Combatant Craft Systems, subsystems, and technologies such as, weapons integration, survivability, shock and vibration systems, situational awareness, and conduct technology demonstrations on other emerging SOF technologies.			
<b><i>FY 2016 Plans:</i></b> Identifies and evaluates candidate solutions for capability enhancements and insertion across Combatant Craft Systems. Technology development includes, but not limited to conformal antennas, communications, weapons integration, survivability, shock and vibration systems, and situational awareness.			
<b>Accomplishments/Planned Programs Subtotals</b>	7.072	10.923	7.269

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC 1: <i>Combatant Craft Systems</i>	26.253	50.337	33.362	-	33.362	52.783	9.593	15.238	35.335	Continuing	Continuing

**Remarks**

N/A

**D. Acquisition Strategy**

- CCM acquisition strategy is 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.
- CCH acquisition strategy was to transition the two advanced technology craft from Navy to SOF operations. Feasibility studies will continue in-house with support from other government agencies or existing contract services to pursue SOF-peculiar requirements for CCH. Sole source contract was awarded with original equipment manufacturer for developmental modification to SEALION. Developing long term strategy to procure additional craft in future years.
- Next Generation CCFLIR acquisition strategy will conduct full and open competition for next generation systems to support the Combatant Craft Assault, CCM and CCH systems.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1160483BB / <i>Maritime Systems</i>	S1684 / <i>Surface Craft</i>

- NGSRF will evaluate COTS solutions to provide technologies for insertion across craft systems, subsystems, and future craft acquisition planning. This effort will consider all acquisition strategies available while applying Better Buying Power practices.

**E. Performance Metrics**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command** **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
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<b>Product Development (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Combatant Craft Medium (CCM)	C/Variou	Oregon Iron Works : Clackamas, OR	-	4.374	Feb 2014	2.298	Jan 2015	1.308	Jan 2016	-		1.308	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Variou	Various : Various	-	0.250	Dec 2013	2.032	Nov 2014	2.245	Apr 2016	-		2.245	Continuing	Continuing	-
Next Generation Combatant Craft Forward Looking Infrared (CCFLIR)	C/Variou	Various : Various	-	1.256	Apr 2014	1.369	Apr 2015	0.600	Nov 2016	-		0.600	-	3.225	-
Next Generation Surface Systems (NGSRF)	C/Variou	Various : Various	-	0.311	Apr 2014	1.399	Apr 2015	1.891	Jan 2016	-		1.891	Continuing	Continuing	-
<b>Subtotal</b>			-	6.191		7.098		6.044		-		6.044	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CCM	MIPR	NSWC : Norfolk, VA	-	0.281	Aug 2014	1.100	Dec 2014	-		-		-	-	1.381	-
CCH	C/Variou	Various : Various	-	-		0.183	Nov 2014	-		-		-	-	0.183	-
Next Generation CCFLIR	C/Variou	NSWC : Crane, IN	-	-		0.430	Dec 2014	0.900	Apr 2016	-		0.900	-	1.330	-
NGSRF	C/Variou	Various : Various	-	-		0.296	Jan 2015	0.325	Apr 2016	-		0.325	-	0.621	-
<b>Subtotal</b>			-	0.281		2.009		1.225		-		1.225	-	3.515	-

<b>Management Services (\$ in Millions)</b>				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CCM	C/Variou	NSWC : Norfolk, VA	-	-		0.375	Mar 2015	-		-		-	-	0.375	-
CCM	C/Variou	NSWC : Crane, IN	-	-		0.225	Mar 2015	-		-		-	-	0.225	-
CCM	C/Variou	SRA : Tampa, FL	-	0.600	May 2014	0.900	May 2015	-		-		-	-	1.500	-
NGSRF	C/Variou	Various : Various	-	-		0.316	Mar 2015	-		-		-	-	0.316	-
<b>Subtotal</b>			-	0.600		1.816		-		-		-	-	2.416	-





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**Exhibit R-4A, RDT&E Schedule Details:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160483BB / <i>Maritime Systems</i>	<b>Project (Number/Name)</b> S1684 / <i>Surface Craft</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Combatant Craft Medium</b>				
Test Article Refurbishment	2	2014	1	2015
Acceptance and Operational Testing	4	2014	3	2015
Weapons, Survivability, C4ISR Integration	2	2015	4	2020
<b>Combatant Craft Heavy</b>				
Fielding & Deployment Release	1	2014	2	2014
C4I and Weapons Integration	1	2014	4	2020
<b>Next Generation CCFLIR</b>				
Risk Reduction Activities	3	2014	1	2015
Program Planning & Documentation	3	2014	3	2016
Market Research	3	2014	3	2014
Request for Proposal	3	2015	3	2015
Development Down Select/Test	1	2015	3	2016
<b>Next Generation Surface Systems</b>				
360 Development, Test, Integration	3	2014	4	2015
Test Magnetic Antenna, Test, Integration	2	2015	2	2016
Shock/Vibration	2	2015	4	2020
Situational Awareness	3	2015	4	2020
SATCOM on the Move Test, Integration	2	2016	1	2018



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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160489BB / <i>Global Video Surveillance Activities</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	38.958	3.304	3.788	3.933	-	3.933	3.870	4.698	4.858	5.431	Continuing	Continuing
S500C: <i>Global Video Surveillance Activities</i>	38.958	3.304	3.788	3.933	-	3.933	3.870	4.698	4.858	5.431	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	3.304	3.788	3.186	-	3.186
Current President's Budget	3.304	3.788	3.933	-	3.933
Total Adjustments	-	-	0.747	-	0.747
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.747	-	0.747

**Change Summary Explanation**

Funding:

FY2014: None.

FY2015: None.

FY2016: Net Increase of \$0.747 million is due to a decrease of -\$0.028 million for a Departmental economic assumption decrease and the details of a \$0.775 million increase available under separate cover.

Schedule: None.

Technical: None.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160490BB / <i>Operational Enhancements Intelligence</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	Continuing	Continuing
S500D: <i>Operational Enhancements Intelligence</i>	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	13.546	16.225	15.225	-	15.225
Current President's Budget	13.546	15.225	10.623	-	10.623
Total Adjustments	-	-1.000	-4.602	-	-4.602
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-4.602	-	-4.602

**Change Summary Explanation**

Funding:

FY2014: None.

FY2015: This program element was reduced due to a classified Congressional Directed Reduction of \$1.000 million.

FY2016: Decrease of -\$4.603 million was due to a Departmental economic assumption decrease of -\$0.077 million and a \$4.525 million decrease due to the realignment of funds for higher command priorities.

Schedule: None.

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	PE 1160490BB / <i>Operational Enhancements Intelligence</i>

Technical: None.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** PB 2016 United States Special Operations Command **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160490BB / <i>Operational Enhancements Intelligence</i>	<b>Project (Number/Name)</b> S500D / <i>Operational Enhancements Intelligence</i>
--	---	--

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S500D: <i>Operational Enhancements Intelligence</i>	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	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 2014	FY 2015	FY 2016
<b>Title:</b> Details provided under separate cover.	13.546	15.225	10.623
<b>Description:</b> Details provided under separate cover.			
<b>FY 2014 Accomplishments:</b> Details provided under separate cover.			
<b>FY 2015 Plans:</b> Details provided under separate cover.			
<b>FY 2016 Plans:</b> Details provided under separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>	13.546	15.225	10.623

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 United States Special Operations Command			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160490BB / <i>Operational Enhancements Intelligence</i>	<b>Project (Number/Name)</b> S500D / <i>Operational Enhancements Intelligence</i>	

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

<b>Other Classified Program</b>	
Other Classified Program	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 United States Special Operations Command		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160490BB / <i>Operational Enhancements Intelligence</i>	<b>Project (Number/Name)</b> S500D / <i>Operational Enhancements Intelligence</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Other Classified Program</b>				
Other Classified Program	1	2014	4	2020



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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Washington Headquarters Service**

*Defense Wide Justification Book Volume 5 of 5*

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

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Washington Headquarters Service • President's Budget Submission FY 2016 • RDT&E Program

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Department of Defense  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

09 Jan 2015

Appropriation -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072

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Department of Defense  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-----							
Management Support	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072
Summary Recap of FYDP Programs							
-----							
Administration and Associated Activities	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072

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Defense-Wide  
FY 2016 President's Budget  
Exhibit R-1 FY 2016 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

09 Jan 2015

	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<hr/>							
Summary Recap of Budget Activities							
-----							
Management Support	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072
Summary Recap of FYDP Programs							
-----							
Administration and Associated Activities	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

Appropriation -----	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Washington Headquarters Services	607	612		612	1,072		1,072
Total Research, Development, Test & Evaluation	607	612		612	1,072		1,072



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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
175	0901598D8W	Management Headquarters WHS	06	607	612		612				U
176	0903230D8W	WHS - Mission Operations Support - IT	06					1,072		1,072	U
		Management Support		607	612		612	1,072		1,072	
Total Research, Development, Test & Eval, DW				607	612		612	1,072		1,072	

Washington Headquarters Services  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

09 Jan 2015

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

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Section
175	0901598D8W	Management Headquarters WHS	06	607	612		612				U
176	0903230D8W	WHS - Mission Operations Support - IT	06					1,072		1,072	U
		Management Support		607	612		612	1,072		1,072	
Total Washington Headquarters Services				607	612		612	1,072		1,072	

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Washington Headquarters Service • President's Budget Submission FY 2016 • RDT&E Program

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

*Budget Activity 06: RDT&E Management Support*  
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<b>Line Item</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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Washington Headquarters Service • President's Budget Submission FY 2016 • RDT&E Program

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

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Management Headquarters WHS	0901598D8W	175	06.....	Volume 5 - 1015
WHS - Mission Operations Support - IT	0903230D8W	176	06.....	Volume 5 - 1019

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Washington Headquarters Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0901598D8W / Management Headquarters WHS
--	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.263	0.607	0.612	-	-	-	-	-	-	-	-	-
945: 945 Miscellaneous IT Initiative	0.263	0.607	0.612	-	-	-	-	-	-	-	-	-

**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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	0.607	0.612	-	-	-
Current President's Budget	0.607	0.612	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

The FY 2014 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 2014 program has developed, tested, and deployed integrated business tools to enhance human resource management, acquisition, and executive services business processes supporting WHS/OSD.

The FY 2015 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 FY14-\$500K – FY15-\$509K.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Washington Headquarters Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 6:</i> <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0901598D8W / <i>Management Headquarters WHS</i>
--	--

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.

2. Secure Mobile Computing FY14-\$107K – FY15-\$103K.

A continuation of the FY 2014 program of 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.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Washington Headquarters Service										<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0901598D8W / Management Headquarters WHS				<b>Project (Number/Name)</b> 945 / 945 Miscellaneous IT Initiative			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
945: 945 Miscellaneous IT Initiative	0.263	0.607	0.612	-	-	-	-	-	-	-	-	-
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)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> Enterprise Information Technology Services Directorate (EITSD) IT	0.500	0.509	-
<b>FY 2014 Accomplishments:</b> Developed and tested, created pilots, and deployed new integrated business tools enhancing human resource management, acquisition, and executive services business processes that support WHS/OSD. Funds have been used to develop and test tools that have improved 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.			
<b>FY 2015 Plans:</b> 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.			
<b>Title:</b> Secure Mobile Computing	0.107	0.103	-
<b>FY 2014 Accomplishments:</b> Developed better mobile classified computing, and communications platforms for all customers to enabling secure computing at residences and at temporary and mobile locations around the world.			
<b>FY 2015 Plans:</b> A continuation of the FY 2014 program of 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.607	0.612	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Washington Headquarters Service		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0901598D8W / <i>Management Headquarters WHS</i>	<b>Project (Number/Name)</b> 945 / <i>945 Miscellaneous IT Initiative</i>

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

**Remarks**

**D. Acquisition Strategy**  
Not applicable for this item

**E. Performance Metrics**  
FY 2014: Continuation of FY 2013 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. 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 2016 Washington Headquarters Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	<b>R-1 Program Element (Number/Name)</b> PE 0903230D8W / WHS - Mission Operations Support - IT
--	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	-	-	1.072	-	1.072	1.091	1.111	1.133	1.155	Continuing	Continuing
945: 945 Miscellaneous IT Initiative	0.000	-	-	1.072	-	1.072	1.091	1.111	1.133	1.155	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)**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	-	-	0.614	-	0.614
Current President's Budget	-	-	1.072	-	1.072
Total Adjustments	-	-	0.458	-	0.458
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• 945 Miscellaneous IT Initiative	-	-	0.458	-	0.458

**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 FY16-\$975K

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 PFFA.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Washington Headquarters Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0903230D8W / <i>WHS - Mission Operations Support - IT</i>
--	--

2. Secure Mobile Computing FY16-\$97K  
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.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Washington Headquarters Service **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0903230D8W / WHS - Mission Operations Support - IT	<b>Project (Number/Name)</b> 945 / 945 Miscellaneous IT Initiative
--	---	---

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
945: 945 Miscellaneous IT Initiative	-	-	-	1.072	-	1.072	1.091	1.111	1.133	1.155	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 2014	FY 2015	FY 2016
<b>Title:</b> Enterprise Information Technology Services Directorate (EITSD) IT	-	-	0.975
<b>FY 2016 Plans:</b> 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.			
<b>Title:</b> Secure Mobile Computing	-	-	0.097
<b>FY 2016 Plans:</b> 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.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	1.072

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

N/A

**Remarks**

**D. Acquisition Strategy**

Not applicable for this item

**E. Performance Metrics**

To achieve a 15% reduction in the time to deploy modifications, upgrades and capabilities to customers.

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**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Operational Test and Evaluation, Defense**

*Defense Wide Justification Book Volume 5 of 5*

***Operational Test and Evaluation, Defense***

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Operational Test and Evaluation, Defense • President's Budget Submission FY 2016 • RDT&E Program

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Defense-Wide  
 FY 2016 President's Budget  
 Exhibit R-1 FY 2016 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

02 Jan 2015

Appropriation: 0460D Operational Test & Eval, Defense

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
1	0605118	OTE Operational Test and Evaluation	06	75,720	93,223		93,223	76,838		76,838	U
2	0605131	OTE Live Fire Test and Evaluation	06	48,423	45,142		45,142	46,882		46,882	U
3	0605814	OTE Operational Test Activities and Analyses	06	121,948	70,346		70,346	46,838		46,838	U
		Management Support		246,091	208,711		208,711	170,558		170,558	
Total Operational Test & Eval, Defense				246,091	208,711		208,711	170,558		170,558	

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Operational Test and Evaluation, Defense • President's Budget Submission FY 2016 • RDT&E Program

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Operational Test and Evaluation, Defense • President's Budget Submission FY 2016 • RDT&E Program

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense</i> / BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	151.815	75.720	93.223	76.838	-	76.838	78.434	80.143	81.937	84.049	Continuing	Continuing
0605118OTE: <i>OT&amp;E</i>	151.815	75.720	93.223	76.838	-	76.838	78.434	80.143	81.937	84.049	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:

- 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 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.
- 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 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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE I <i>Operational Test and Evaluation (OT&amp;E)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	75.720	74.583	77.352	-	77.352
Current President's Budget	75.720	93.223	76.838	-	76.838
Total Adjustments	-	18.640	-0.514	-	-0.514
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	18.640			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation/Economic Assumptions	-	-	-0.514	-	-0.514

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 0605118OTE: *OT&E*

- Congressional Add: *Cyber Force Training and Resiliency*
- Congressional Add: *PACOM Cyber*
- Congressional Add: *Cyber Red Team and Training*

Congressional Add Subtotals for Project: 0605118OTE

Congressional Add Totals for all Projects

	<b>FY 2014</b>	<b>FY 2015</b>
	-	10.000
	-	4.880
	-	3.760
Congressional Add Subtotals for Project: 0605118OTE	-	18.640
Congressional Add Totals for all Projects	-	18.640

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 0605118OTE / <i>OT&amp;E</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0605118OTE: <i>OT&amp;E</i>	151.815	75.720	93.223	76.838	-	76.838	78.434	80.143	81.937	84.049	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 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.
- 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 0605118OTE / <i>OT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p><b>Title:</b> Operational Test and Evaluation</p> <p><b>FY 2014 Accomplishments:</b> Operational Test and Evaluation Oversight</p> <p>This effort is in direct support of the Director's Title 10 responsibilities and is a continuing effort. Funding for FY 2014 provided 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&amp;E and OUSD(AT&amp;L). Key elements of DOT&amp;E oversight authority are identified in Calendar Year 2014 Office of the Secretary of Defense Test and Evaluation Oversight List.</p> <p>Information Assurance (IA) and Interoperability (IOP) Evaluations/Cybersecurity and Interoperability Evaluations</p> <p>DOT&amp;E oversaw and resourced 9 Combatant Command (CCMD) level and 3 Service level assessments in FY 2014. In addition to the 12 exercise assessments, 3 assessments were performed during visits to operational sites not involved in an exercise. DOT&amp;E also began a new assessment activity with U.S. Pacific Command whereby more frequent and more focused assessment events will occur as part of a Theater Cyber Readiness Campaign (TCRC). The cyber Red Teams which supported the FY 2014 assessments used validated cyber Tactics, Techniques, and Procedures (TTP's) and incorporated more advanced cyber threats. Fiscal year 2014 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.</p> <p><b>FY 2015 Plans:</b> Operational Test and Evaluation Oversight</p> <p>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&amp;E and OUSD(AT&amp;L). Key elements of DOT&amp;E oversight authority are identified in Calendar Year 2015 Office of the Secretary of Defense Test and Evaluation Oversight List.</p> <p>Information Assurance (IA) and Interoperability (IOP) Evaluations/Cybersecurity and Interoperability Evaluations</p> <p>DOT&amp;E will oversee and resource approximately 10 CCMD level and 4 Service level assessments in FY 2015. Three CCMDs will each conduct a TCRC consisting of bi-monthly assessments 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</p>	75.720	74.583	76.838

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 0605118OTE / <i>OT&amp;E</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2014	FY 2015	FY 2016
<p>critical mission aided by the improved technologies and TTPs. Additionally, assessment teams will observe 3 new CCMD/ Service exercises as potential venues for future assessment. The portrayal of advanced cyber threats and assessment of mission accomplishment in representative threat environments are primary planning objectives for assessments in FY 2015. The recently approved Persistent Cyber OPFOR will support these more operationally realistic and threat-representative assessments. Fiscal year 2015 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 across multiple CCMDs for added threat realism during exercise assessments.</p> <p><b>FY 2016 Plans:</b> Operational Test and Evaluation Oversight</p> <p>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&amp;E and OUSD(AT&amp;L). Key elements of DOT&amp;E oversight authority are identified in Calendar Year 2016 Office of the Secretary of Defense Test and Evaluation Oversight List.</p> <p>Information Assurance (IA) and Interoperability (IOP) Evaluations/Cybersecurity and Interoperability Evaluations</p> <p>DOT&amp;E will oversee and resource approximately 10 CCMD-level and 4 Service-level assessments in FY 2016. 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&amp;E will continue to work with the CCMDs 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 FY2016 include such advanced threats. 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) and other cyber range assets with Red Teams portraying advanced cyber adversaries will support most CCMD exercises for added threat realism.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	75.720	74.583	76.838

<b>Congressional Add:</b> Cyber Force Training and Resiliency	FY 2014	FY 2015
	-	10.000

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605118OTE / <i>Operational Test and Evaluation (OT&amp;E)</i>	<b>Project (Number/Name)</b> 0605118OTE / <i>OT&amp;E</i>
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	FY 2014	FY 2015
<b>FY 2015 Plans:</b> Funding will be 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 will be 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.		
<b>Congressional Add:</b> PACOM Cyber <b>FY 2015 Plans:</b> Funding will be applied to growing cyber-range capabilities at US Pacific Command.	-	4.880
<b>Congressional Add:</b> Cyber Red Team and Training <b>FY 2015 Plans:</b> Funding to support Cyber Red Team and training exercises.	-	3.760
<b>Congressional Adds Subtotals</b>	-	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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	66.568	48.423	45.142	46.882	-	46.882	49.043	49.460	50.722	51.885	Continuing	Continuing
0605131OTE: <i>LFT&amp;E</i>	66.568	48.423	45.142	46.882	-	46.882	49.043	49.460	50.722	51.885	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 (JTTCG/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 (JTTCG/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. JTTCG/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. JTTCG/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

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Operational Test and Evaluation, Defense	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>
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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>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>FY 2016 Base</u></b>	<b><u>FY 2016 OCO</u></b>	<b><u>FY 2016 Total</u></b>
Previous President's Budget	48.423	45.142	47.196	-	47.196
Current President's Budget	48.423	45.142	46.882	-	46.882
Total Adjustments	-	-	-0.314	-	-0.314
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation Adjustment	-	-	-0.314	-	-0.314



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0605131OTE: <i>LFT&amp;E</i>	66.568	48.423	45.142	46.882	-	46.882	49.043	49.460	50.722	51.885	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 (JTTCG/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 (JTTCG/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. JTTCG/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. JTTCG/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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>
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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. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p><b>Title:</b> Live Fire Test and Evaluation</p> <p><b>FY 2014 Accomplishments:</b> Live Fire Test and Evaluation Major Test and Evaluation Programs</p> <p>The FY 2014 budget provided Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and Beyond Low Rate Initial Production (BLRIP) reports for those programs designated for oversight by DOT&amp;E and OUSD(AT&amp;L). The oversight list is maintained continuously and published annually.</p> <p>JLF Programs and LFT&amp;E Initiatives</p> <p>Conducted tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&amp;E and operator needs. The need for these tests results from systems being exposed to new threats, used in new unanticipated tactics, or being operated in new combat environments, and the subsequent need for an assessment of their performance. Continued efforts in support of Personnel Protection Equipment, including testing protocols for combat helmets and body armor. Addressed urgent requests from theater that directly supported deployed Joint Combat Assessment Team investigation and report to operators.</p> <p>Performed JLF projects to provide survivability data on currently fielded U.S. systems. JLF Air projects tested the vulnerability of PT6 turboprop engines, evaluated the effects of internal configuration on helicopter crew compartment fires, as well as investigated technologies/techniques to reduce generic vulnerabilities to all aircraft, such as to MANPADS, small arms, the effect of yawed projectiles and missile debris on aircraft vulnerability, the lethality of advanced projectiles, and performed a comparison of commonly used test threats. New projects investigated cabin mounted auxiliary fuel tank vulnerability, vulnerability to high energy lasers, 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, improved validation data for modeling and simulation tools, the use and validity of manikins, helmets, and improvements to material characteristics used in modeling and simulation. New projects studied aging effects on fielded armor, irregular fragment penetration, behind helmet blunt trauma skull injuries, and improved ballistic clay formulations. JLF Sea</p>	48.423	45.142	46.882

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>projects continued to investigate ship vulnerabilities in the areas of commercial standards, equipment and component damage, vulnerabilities of designs and components for new ships, fire damage to ship components, including bulkheads, insulation, and reconfigurable spaces, investigated asymmetric boat threats, and began work on developing small boat vulnerability models. New projects investigated deep depth underwater explosions, airgun configurations for full ship shock trial alternatives, and explored configurations for augmenting ballistic manikins.</p> <p>Joint Aircraft Survivability Program (JASP)</p> <p>In FY 2014 the JASP continued work on 31 multi-year RDT&amp;E projects and initiated 20 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&amp;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&amp;S), the JASP continued to improve survivability M&amp;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&amp;S requirements identified by the joint aircraft survivability community. The JASP completed 42 reports documenting efforts accomplished in FY 2014.</p> <p>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.</p> <p>Joint Technical Coordinating Group for Munitions Effectiveness</p> <p>JTCG/ME Joint Munitions Effectiveness Manual Weaponering System (JWS) v2.1.1 software and JTCG/ME generated Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3160.01 Collateral Effects Radii (CER) tables were used for operational weaponering and collateral damage estimation calls in direct support of operations in the AFRICOM and CENTCOM Areas of Responsibilities. To provide continued support to operational commanders, DoD targeteers, weaponers, and planners, the JTCG/ME developed various analytical and operational methodologies and target geometric models. Additionally JTCG/ME's air-to-air and surface-to-air planning model, the Joint-Anti-air Combat Effectiveness System (J-ACE) v5.2.1 was released in April 2014 to provide aircraft survivability data.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

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

	FY 2014	FY 2015	FY 2016
<p>The fielded JWS v2.1.1 contains the Fast Integrated Structural Tool (FIST). FIST is the JMEM operational-level methodology that incorporates the integral modules from the Building Analysis Module (BAM) and Hardened Target Module (HTM) to create a merged tool that generates weapon effectiveness and damage assessments against infrastructure targets to include buildings, bunkers, and tunnels. JWS v2.1.1 also contains approximately 180 new/updated targets, 15 new/updated munitions, new Explosive Equivalent Weights based on blast testing, and an improved 3-D viewer. In addition, JWS v2.2 development is ongoing to support coalition partners. The JTCG/ME in conjunction with the JWS Configuration Control Board and the JMEM Production Contractor (JPC) are implementing a re-marking effort in order to facilitate the documentary release of JWS.</p> <p>J-ACE v5.2.1 simulates air-to-air and surface-to-air engagements. Blue, Red, and Gray air-to-air missile (AAM) models; and, Red and Gray surface-to-air missile (SAM) flyout models are included. J-ACE v5.2.1 provides updated Joint Anti-Air Model (JAAM) missile fly out model including hundreds of weapon target pairings and JAAM-Enhanced Surface-to-Air Missile Simulation (ESAMS) countermeasures interface. J-ACE v5.2.1 also provides the new "Endgame Manager (EM)" software and data sets. The EM is a new application which adds missile lethality and target vulnerability. EM allows explicit evaluation of weapon miss distance, fuse performance, weapon lethality and target vulnerability. EM provides the Probability of kill given an intercept (Pk/i). Additionally, Joint Anti-Air Model (JAAM) was integrated into the Individual Combat Aircrew Display System (ICADS) and the Personal Computer Debriefing System (PCDS) for direct use for tactics, planning, and training at operational test squadrons for fighters and bombers.</p> <p>To more effectively support operational mission planning, particularly at USSTRATCOM, the J-ACE v5.2.1 release also provides a direct interface to force level simulations. The fidelity is adequate for studying tactics, training evaluation, relative missile performance and scenario planning.</p> <p>In support of the Combatant Commands and the CJCSI 3160.01, JTCG/ME provided updates for CER values for newly fielded/ updated systems (e.g., SDB II, Griffin, Hellfire, GBU-49/BLU-133, etc.). In addition, the JTCG/ME released Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) v1.1.1 with "Route CDE Capability" for operational use. This new capability has been used in support of multiple kinetic strikes since being loaded at the Task Force in Afghanistan. This tool displays accredited Collateral Damage Estimate Level 1-5 A-C series effective radii reference tables. Additionally, JTCG/ME trained nearly 300 users at 12 different Commands to support Collateral Damage Estimation decisions.</p> <p>In support of JMEM methodology improvement, the JTCG/ME accredited two analytical models according to JTCG/ME approved guidelines (i.e., Process Guide-2). These models are Joint Blast Analysis Model (JBAM) v1.2.2 and Integrated Munitions Effects Assessment (IMEA) v11.0.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>To address emerging Cyber Operations Joint Munitions Effectiveness Manual (JMEM), JTCG/ME re-deployed Joint Capability Analysis and Assessment System (JCAAS) tools: Computer Network Attack Risk and Effectiveness Analyzer (CREA); Network Risk Assessment Tool (NRAT); Communications &amp; Radar Electronic Attack &amp; Planning Effectiveness Reference (CREAPER); Effectiveness of Psychological Influence Calculator (EPIC); and Joint Broadcast Analysis Tool (JBAT). Joint Capabilities Analysis and Assessment System in development to provide a shared interface for operational users in selecting the capabilities to best meet given objectives based on capability effectiveness derived from target vulnerability and capability characteristics. The JCAAS Cyber scope included weapon characterization; coordinating test and target data development; testing and evaluation Cyber data standards; and developing new database schema for Electronic Warfare mission planning.</p> <p><b>FY 2015 Plans:</b> Live Fire Test and Evaluation Major Test and Evaluation Programs</p> <p>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&amp;E and OUSD(AT&amp;L). The oversight list is maintained continuously and published annually.</p> <p>JLF Programs and LFT&amp;E Initiatives</p> <p>Conduct tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&amp;E and operator needs. The need for these tests results from systems being exposed to new threats, used in new unanticipated tactics, or being operated in new combat environments, and the subsequent need for an assessment of their performance. Continue efforts in support of Personnel Protection Equipment, including combat helmets and body armor. Continue to address urgent requests that directly support deployed operators and issues of importance to the Congress as they arise. Continue to perform JLF projects to provide survivability data on currently fielded U.S. systems.</p> <p>JLF Air projects will continue to evaluate generic technologies and techniques to decrease vulnerabilities to all aircraft, such as to MANPADS, small arms, and the performance of self-sealing fuel tanks. New projects will investigate CV-22 armor, ballistic vulnerability of fuel systems on light aircraft, percentage of oxygen allowed to prohibit fuel tank ullage explosions, and functioning of yawed armor piercing incendiary threats. 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, as well as improving modeling and simulation tools by providing validation data. New projects will study fielded weapons effects to support warfighter collateral damage estimates and weapon lethality against MOUT structures. JLF Sea projects will continue to develop key components of alternatives to traditional shock trials of ships and submarines, will continue to investigate ship vulnerabilities in the areas of</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

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

	FY 2014	FY 2015	FY 2016
<p>commercial standards, equipment and component damage, and will investigate vulnerabilities of designs and components for new ships.</p> <p>JASP</p> <p>In FY 2015 the JASP will continue work on at least 34 multi-year RDT&amp;E projects and initiate 20 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&amp;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&amp;S, the JASP will continue to improve survivability M&amp;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&amp;S requirements identified by the joint aircraft survivability community.</p> <p>The JCAT will continue to support the Air Force, Army, Marine Corps and Navy by assessing combat damage incidents, training operators on threat effects and combat damage assessment, and reporting their findings to combatant commanders and the DoD science and technology and acquisition communities. The JASP will continue supporting aircraft survivability education and information exchange through internet sites (restricted access and classified), by publishing the Aircraft Survivability Journal, developing educational materials and conducting training for the DoD and their contractors. The JASP will initiate, continue and complete other projects as approved by the JASP Principal Members Steering Group and OSD/DOT&amp;E.</p> <p>Joint Technical Coordinating Group for Munitions Effectiveness</p> <p>JTCG/ME will continue to field critical JMEmS to enable on-going COCOM operational Weaponeering and collateral damage estimation calls. In support of operational commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME will release JMEm Weaponeering System (JWS) v2.2 and v2.3, Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) Tool Version 1.2 and the Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.3 in FY 2015.</p> <p>JWS v2.2 will include an initial DCiDE connectivity, FIST Updates (i.e., quasi-static blast, building types, etc.) and additional updates. In total, 220 methodology, functionality, weapons/warheads/fuzes and target updates are included.</p> <p>JWS v2.3 will include a 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 be modified</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

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

	FY 2014	FY 2015	FY 2016
<p>to support integration of Electronic Light Table (ELT) viewers. Also, Modernized Integrated Database (MIDB) and Joint Targeting Toolbox (JTT) interfaces will be developed with additional capabilities to support connectivity. These developments will enable the integration of Weaponneering, Precision Point Mensuration (PPM) and Collateral Damage Estimation.</p> <p>JWS v2.3 will also add the updated Gunship Delivery Accuracy Program (GDAP); Rotary Wing Delivery Accuracy Program (RWDAP); Fast Integrated Structural Tool (FIST) v1.2.</p> <p>Based on the current guidance and direction from Joint Staff, this 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 and Other Joint Commands.</p> <p>J-ACE v5.3 will provide extended and updated data sets for missile and aircraft target aero-performance, anti-air missile lethality and air target vulnerability. In particular, a total of 15 new or updated Air-to-Air (AA) or Surface-to-Air (SA) Government furnished missile or weapon fly out models will be integrated. Additionally, Joint Anti Air Model (JAAM) will be updated to include the effect of weapon system reliability on the probability of a successful engagement. Also, HIVE/BLUEMAX6 will be developed, integrated, and tested for aircraft aero performance models. BlueMax6 provides a large library of BLUE and RED aircraft models developed by the acquisition and intelligence communities. Electronic Counter-Measure (ECM) will be developed and tested for an aircraft's ECM system jamming coverage. Initially, 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. JAAM-HIVE-ESAMS software interface will be completed to enable Blue CM evaluations against Red Surface to Air Missiles.</p> <p>In support of Joint Capability Analysis and Assessment System (JCAAS), Cyber JMEM tools - Computer Network Attack Risk and Effectiveness Analyzer (CREA) and Network Risk Assessment Tool (NRAT) will be updated and upgraded based on Cyber operational users feedback. Additionally, range testing of Cyber capabilities and targets will be performed to provide empirical evidence of effectiveness and risk associated with the operational employment of cyber capabilities against representative targets. Test data will be collected, analyzed, archived, and reviewed – and as conditions warrant, submitted to JTCG/ME for accreditation as authoritative effectiveness and risk data for specified capability-target pairings with documented environmental conditions.</p> <p>JTCG/ME will develop JMEM data for most critical Combatant Commander identified systems and also reduce DVD-ROM update cycles through incremental updates. 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, and Anti-air). Finally providing connectivity to real time planning systems assessing time sensitive targets will be addressed.</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

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

	FY 2014	FY 2015	FY 2016
<p>JTCG/ME will also conduct requirement analysis of the current JWS, J-ACE, and DCiDE software to determine options to enhance long-term software maintainability and flexibility to include structural and architectural changes.</p> <p><b>FY 2016 Plans:</b> Live Fire Test and Evaluation Major Test and Evaluation Programs</p> <p>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&amp;E and OUSD(AT&amp;L). The oversight list is maintained continuously and published annually.</p> <p>JLF Programs</p> <p>Conduct tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&amp;E and warfighter needs to the extent funding allows. The need for these tests result from systems being exposed to new threats, used in new unanticipated tactics, or being operated in new combat environments, and the subsequent need for an assessment of their performance. Projects will address urgent requests that directly support deployed warfighters and issues of importance to the Congress.</p> <p>JASP</p> <p>In FY 2016 the JASP will continue work on at least 26 multi-year RDT&amp;E projects and initiate 12-17 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&amp;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&amp;S, the JASP will continue to improve survivability M&amp;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&amp;S requirements identified by the joint aircraft survivability community.</p> <p>The JCAT will continue to support the Air Force, Army, Marine Corps and Navy by assessing combat damage incidents, training operators on threat effects and combat damage assessment, and reporting their findings to combatant commanders and the DoD science and technology and acquisition communities. The JASP will continue supporting aircraft survivability education</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>and information exchange through internet sites (restricted access and classified), by publishing the Aircraft Survivability Journal, developing educational materials and conducting training for the DoD and their contractors. The JASP will initiate, continue and complete other projects as approved by the JASP Principal Members Steering Group and OSD/DOT&amp;E.</p> <p>Joint Technical Coordinating Group for Munitions Effectiveness</p> <p>In support of operational commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME will develop and release JMEM Weaponeering System (JWS) v3.0 and Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.4 during FY 2016.</p> <p>JWS v3.0 efforts will include Joint Mean Area Effects (JMAE) v2.2, Non-Linear Blast Tool (NBT) v1.0, Moving Target Methodology (MTM), Small Precision Munition (SPM) methodology, bomb burial interim methodology, Average Metrics (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).</p> <p>J-ACE v5.4 will continue to field and add Browse descriptive material to support new weapons in the Joint Anti-air Model (JAAM); enhance Personal Computer Debriefing System (PCDS) capability; evaluate HIVE/BLUEMAX6 and HERCULES to include consideration of man-in-the-loop stick and throttle maneuver input; address use of standard aircraft Operational Flight Program (OFP) weapons symbols/terminology with JAMM; and develop JAAM capability to evaluate two sided Suppression of Enemy Air Defense (SEAD) and Destruction of Enemy Air Defense (DEAD).</p> <p>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.</p> <p>JTCG/ME will develop JMEM data for most critical Combatant Commander identified systems and also reduce DVD-ROM update cycles through incremental updates. 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, Joint Capability Analysis and Assessment System (JCAAS) and Anti-air). Finally providing connectivity to real time planning systems assessing time sensitive targets will be addressed.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	48.423	45.142	46.882

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605131OTE / <i>Live Fire Test and Evaluation (LFT&amp;E)</i>	<b>Project (Number/Name)</b> 0605131OTE / <i>LFT&amp;E</i>

**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 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense I BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	178.501	121.948	70.346	46.838	-	46.838	47.810	48.864	49.858	49.458	Continuing	Continuing
0605814OTE: OTA&A	178.501	121.948	70.346	46.838	-	46.838	47.810	48.864	49.858	49.458	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.

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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460: <i>Operational Test and Evaluation, Defense / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	62.157	48.013	47.152	-	47.152
Current President's Budget	121.948	70.346	46.838	-	46.838
Total Adjustments	59.791	22.333	-0.314	-	-0.314
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-0.709	-0.667			
• Congressional Rescissions	-	-			
• Congressional Adds	60.500	23.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Inflation/Economic Assumptions	-	-	-0.314	-	-0.314

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 0605814OTE: *OTA&A*

Congressional Add: *Electronic Warfare Test Capability*

Congressional Add: *Joint Test and Evaluation*

Congressional Add: *Threat Resource Analysis*

Congressional Add Subtotals for Project: 0605814OTE

Congressional Add Totals for all Projects

	<b>FY 2014</b>	<b>FY 2015</b>
	60.500	-
	-	18.000
	-	5.000
Congressional Add Subtotals for Project: 0605814OTE	60.500	23.000
Congressional Add Totals for all Projects	60.500	23.000

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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 0605814OTE / OTA&A
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0605814OTE: OTA&A	178.501	121.948	70.346	46.838	-	46.838	47.810	48.864	49.858	49.458	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 2014	FY 2015	FY 2016
<b>Title:</b> Operational Test Activities and Analyses	61.448	47.346	46.838
<b>FY 2014 Accomplishments:</b> Joint Test and Evaluation (JT&E)			
In FY 2014, JT&E had two projects close and three projects ongoing from FY 2013. The Joint Deployable Integrated Air and Missile Defense Joint Test closed in June 2014. The test developed, tested and evaluated tactics, techniques, and procedures to enable the joint task force commander to employ integrated deployable air, cruise missile, and theater ballistic missile defense capabilities. The Joint Advanced Capability Employment Joint Test closed in August 2014. The test developed a testable and repeatable methodology for the joint task force commander to employ advanced capabilities to overcome complex targeting challenges.			
Six new feasibility studies were conducted in FY 2014, four of which were selected to conduct joint tests.			
Threat Systems			
In FY 2014, Threat Systems initiated actions to significantly reduce its DOT&E funded investment program due to budget restrictions. These reductions affected DOT&E's ability to make strategic investments to reduce limitations to test due to inadequate threat portrayal. All other Threat Systems support continued.			
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			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 0605814OTE / OTA&A

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

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.

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 31 T&E activities and analyzed and reported on more than 30 different systems, with special emphasis on rotary wing survivability, CM/CCM employment, warning and targeting systems, and PGWs. Most programs supported received an independent assessment of our data/findings and test support for their CM/CCM evaluations. Approximately 55% 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 21% 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. Fifteen 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 HFI systems. In addition, the Center is improving its electronic warfare capability with the development of the high-power Portable Range Threat Simulator 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 2% of the Center's efforts consisted of providing subject matter expertise and other support not directly related to scheduled test activities.

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 2015 Plans:**

Joint Test and Evaluation (JT&E)

FY 2014	FY 2015	FY 2016

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Operational Test and Evaluation, Defense		<b>Date:</b> February 2015
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p>In FY 2015, JT&amp;E has two projects slated to close and an estimated four projects ongoing from FY 2014. Joint Counter Low, Slow, Small Unmanned Aircraft Systems (UAS), scheduled to close 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 commander of the area air defense. The Unmanned Aircraft Systems Airspace Integration Joint Test, scheduled to close in July 2015, developed and tested DoD UAS procedures to support effective UAS flight operations in the National Airspace System.</p> <p>Four new feasibility studies will be conducted in FY 2015, two of which will be selected to conduct joint tests.</p> <p>Threat Systems</p> <p>In FY 2015, 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. Threat Systems will: provide intelligence support to DOT&amp;E staff to address specific questions on threat systems affecting programs on the OSD T&amp;E Oversight list; provide briefings and special intelligence reports when necessary; sustain and manage threat M&amp;S to support test and evaluation by overseeing and coordinating intelligence community developed threat models, performing threat model anomaly resolution resolving differences from live fire testing, integrating threat models into T&amp;E facilities and distributing performance and signature models to T&amp;E users; manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD T&amp;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&amp;E if funding is available; represent DOT&amp;E at foreign material exchanges, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&amp;E needs for foreign material, coordinate service requirements, and de-conflict and prioritize foreign material requirements for T&amp;E; represent DOT&amp;E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition; and Oversee legacy DOT&amp;E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments.</p> <p>These activities help DOT&amp;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.</p> <p>The Center</p> <p>The Center is 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/</p>			

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<p>findings and test support for CM/CCM evaluations. The Center will continue to emphasize support of DOT&amp;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. The Center will complete the initial development of the MSALTS and JSIS, which will be used in support of testing for both Title 10 programs and ASE urgent operational needs. The Center will complete the development of a new Remote Launch System capable of launching larger diameter missiles. The Center will continue working with the Threat Simulator Working Group (TSWG)-sponsored HSI model. Our support will be distributed across all the Services, as well as intelligence agencies and research and development activities.</p> <p>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&amp;E Subcommittee, JCMT&amp;E WG, and JCMT&amp;E WG HFI subgroup lead.</p> <p><b>FY 2016 Plans:</b> Joint Test and Evaluation (JT&amp;E)</p> <p>In FY 2016 JT&amp;E has four projects slated to close and an estimated two projects ongoing from FY 2015. The Joint Base Architecture for Secure Industrial Control Systems Joint Test, anticipated to close in December 2015, will assess and refine joint industrial control systems network tactics, techniques, and procedures to better identify, mitigate, and recover from advanced, persistent cyber-attacks. The Joint Tactical Air Picture Joint Test is scheduled to close in December 2015 and 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.</p> <p>Four new feasibility studies will be conducted in FY 2016, two of which will be selected to conduct joint tests.</p> <p>Threat Systems</p> <p>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. Threat Systems will: provide intelligence support to DOT&amp;E staff to address specific questions on threat systems affecting programs on the OSD T&amp;E Oversight list and provide briefings and special intelligence reports when necessary; sustain and manage threat M&amp;S to support test and evaluation by overseeing and coordinating intelligence community developed threat</p>			



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**Exhibit R-2A, RDT&E Project Justification:** PB 2016 Operational Test and Evaluation, Defense **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0460 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605814OTE / <i>Operational Test Activities and Analyses</i>	<b>Project (Number/Name)</b> 0605814OTE / OTA&A
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**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<p>models, performing threat model anomaly resolution resolving differences from live fire testing, integrating threat models into T&amp;E facilities and distributing performance and signature models to T&amp;E users; manage Integrated Technical Evaluation and Analysis of Multiple Sources (ITEAMS) efforts supporting programs on the OSD Oversight T&amp;E List by conducting intelligence “deep dives” to produce intelligence in sufficient detail to develop new threat test assets; initiate new ITEAMS leading to the development of new threat systems for T&amp;E if funding is available; represent DOT&amp;E at foreign material exchanges, inter-agency coordinating groups, and non-proliferation groups to raise awareness of T&amp;E needs for foreign material, coordinate service requirements, and de-conflict and prioritize foreign material requirements for T&amp;E; represent DOT&amp;E at the Intelligence Mission Data Oversight Board responsible for development, production and sharing issues affecting the intelligence data supporting weapons systems acquisition; and, oversee legacy DOT&amp;E investments and continue management and oversight of legacy and new Test Resource Management Center-funded threat system investments.</p> <p>These activities help DOT&amp;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.</p> <p>The Center</p> <p>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&amp;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 will continue Improvement and Modernization (I&amp;M) efforts to improve our T&amp;E capabilities. The Center will continue to work with the TSWG-sponsored HSI&amp;G model. Our support will be distributed across all the Services, as well as intelligence agencies and research and development activities.</p> <p>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&amp;E Subcommittee, JCMT&amp;E WG, and JCMT&amp;E WG HFI subgroup lead.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	61.448	47.346	46.838

	<b>FY 2014</b>	<b>FY 2015</b>
<b>Congressional Add:</b> Electronic Warfare Test Capability	60.500	-

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	FY 2014	FY 2015
<b>FY 2014 Accomplishments:</b> During FY 2014 the funds were used to procure the CEAFAR2, a suite of radar threat simulator equipment designed to emulate the transmitter characteristics of various foreign radar systems.		
<b>Congressional Add:</b> Joint Test and Evaluation	-	18.000
<b>FY 2015 Plans:</b> Funding will provide for one additional Joint Test and several Quick Reaction Tests.		
<b>Congressional Add:</b> Threat Resource Analysis	-	5.000
<b>FY 2015 Plans:</b> The funds will be used to increase threat Intel support to DOT&E and will be used to create threat realism in testing. Specifically increase Cyber Intel support to define the up and coming threats. Funds will also be used to expand current Modeling and Simulation configuration management to include Radio Frequency. Other projects to capture the data and capabilities of threat test assets will also be enhanced.		
<b>Congressional Adds Subtotals</b>	60.500	23.000

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

N/A  
**Remarks**  
FFRDC general reduction

**D. Acquisition Strategy**

Not Applicable

**E. Performance Metrics**

(U) 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.