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**Department of Defense  
Fiscal Year (FY) 2017 Request for Additional Appropriations**

March 2017



**Office of the Secretary Of Defense**

*Defense-Wide Justification Book Volume 3 of 5*

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

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Office of the Secretary Of Defense • Request for Additional Appropriations FY 2017 • RDT&E Program

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## Defense-Wide

March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)  
 Exhibit R-1 March Budget Amendment to the FY 2017 President's Budget Request for BASE + Overseas Contingency Operations (OCO)  
 Total Obligational Authority  
 (Dollars in Thousands)

13 Mar 2017

	FY 2017 PB Request w/Nov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO
Summary Recap of Budget Activities			
Basic Research	129,571		129,571
Applied Research	158,823		158,823
Advanced Technology Development	1,161,401	60,384	1,221,785
Advanced Component Development And Prototypes	1,096,620	150,600	1,247,220
System Development And Demonstration	292,419	16,524	308,943
Management Support	522,166	112,900	635,066
Operational System Development	69,277		69,277
Total Research, Development, Test & Evaluation	3,430,277	340,408	3,770,685
Summary Recap of FYDP Programs			
General Purpose Forces	2,072		2,072
Intelligence and Communications	118,502		118,502
Research and Development	3,275,319	340,408	3,615,727
Training Medical and Other	34,384		34,384
Total Research, Development, Test & Evaluation	3,430,277	340,408	3,770,685

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(Dollars in Thousands)

13 Mar 2017

	FY 2017 PB Request wNov Amend	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO
Appropriation:			
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Office of Secretary of Defense	3,430,277	340,408	3,770,685
Total Research, Development, Test & Evaluation	3,430,277	340,408	3,770,685



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 Total Obligational Authority  
 (Dollars in Thousands)

13 Mar 2017

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

Line	Program Element No Number	Item	Act	FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO	S e c
3	0601110D8Z	Basic Research Initiatives	01	36,654		36,654	U
5	0601120D8Z	National Defense Education Program	01	69,345		69,345	U
6	0601228D8Z	Historically Black Colleges and Universities/ Minority Institutions	01	23,572		23,572	U
	Basic Research			129,571		129,571	
8	0602000D8Z	Joint Munitions Technology	02	17,745		17,745	U
10	0602230D8Z	Defense Technology Innovation	02	30,000		30,000	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	48,269		48,269	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	42,206		42,206	U
16	0602668D8Z	Cyber Security Research	02	12,183		12,183	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,420		8,420	U
	Applied Research			158,823		158,823	
23	0603000D8Z	Joint Munitions Advanced Technology	03	23,902		23,902	U
24	0603122D8Z	Combating Terrorism Technology Support	03	73,002		73,002	U
25	0603133D8Z	Foreign Comparative Testing	03	19,343		19,343	U
31	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,256		17,256	U
35	0603288D8Z	Analytic Assessments	03	12,048		12,048	U
36	0603289D8Z	Advanced Innovative Analysis and Concepts	03	57,020		57,020	U
37	0603375D8Z	Technology Innovation	03	39,923	50,000	89,923	U

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13 Mar 2017

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

Line No	Program Element Number	Item	Act	FY 2017 PB Request w/Nov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO	S e c
39	0603527D8Z	RETRACT LARCH	03	181,977		181,977	U
40	0603618D8Z	Joint Electronic Advanced Technology	03	22,030		22,030	U
41	0603648D8Z	Joint Capability Technology Demonstrations	03	148,184		148,184	U
42	0603662D8Z	Networked Communications Capabilities	03	9,331		9,331	U
43	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	158,398		158,398	U
45	0603699D8Z	Emerging Capabilities Technology Development	03	49,895		49,895	U
47	0603716D8Z	Strategic Environmental Research Program	03	65,078		65,078	U
49	0603727D8Z	Joint Warfighting Program	03	7,848		7,848	U
54	0603769D8Z	Distributed Learning Advanced Technology Development	03		10,384	10,384	U
55	0603781D8Z	Software Engineering Institute	03	14,264		14,264	U
56	0603826D8Z	Quick Reaction Special Projects	03	74,943		74,943	U
57	0603833D8Z	Engineering Science & Technology	03	17,659		17,659	U
58	0603941D8Z	Test & Evaluation Science & Technology	03	87,135		87,135	U
59	0604055D8Z	Operational Energy Capability Improvement	03	37,329		37,329	U
60	0303310D8Z	CWMD Systems	03	44,836		44,836	U
		Advanced Technology Development		1,161,401	60,384	1,221,785	
62	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	28,498		28,498	U
63	0603600D8Z	WALKOFF	04	89,643	8,500	98,143	U

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Line	Program Element No Number	Item	Act	FY 2017 PB Request w/Nov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining Base+OCO	S e c
64	0603821D8Z	Acquisition Enterprise Data & Information Services	04	2,136		2,136	U
65	0603851D8Z	Environmental Security Technical Certification Program	04	52,491		52,491	U
83	0603920D8Z	Humanitarian Demining	04	10,007		10,007	U
84	0603923D8Z	Coalition Warfare	04	10,126		10,126	U
85	0604016D8Z	Department of Defense Corrosion Program	04	3,893		3,893	U
87	0604132D8Z	Missile Defeat Project	04	45,000	140,500	185,500	U
88	0604250D8Z	Advanced Innovative Technologies	04	844,870	1,600	846,470	U
89	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	3,320		3,320	U
90	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	4,000		4,000	U
101	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	2,636		2,636	U
		Advanced Component Development And Prototypes		1,096,620	150,600	1,247,220	
103	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	10,324		10,324	U
104	0604165D8Z	Prompt Global Strike Capability Development	05	181,303		181,303	U
106	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	16,288		16,288	U
110	0605022D8Z	Defense Exportability Program	05	2,920		2,920	U
111	0605027D8Z	OUSD(C) IT Development Initiatives	05		16,524	16,524	U
115	0605140D8Z	Trusted Foundry	05	69,000		69,000	U
116	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	9,881		9,881	U

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 (Dollars in Thousands)

13 Mar 2017

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

Line	Program Element No Number Item	Act	FY 2017 PB Request wNov Amend Less Enacted PL 114-254 Base+OCO	FY 2017 Mar Amended Request Base+OCO	FY 2017 PB Remaining e Base+OCO	S c
118	0305304D8Z DoD Enterprise Energy Information Management (EEIM)	05	2,703		2,703	U
	System Development And Demonstration		292,419	16,524	308,943	
119	0604774D8Z Defense Readiness Reporting System (DRRS)	06	4,678		4,678	U
120	0604875D8Z Joint Systems Architecture Development	06	4,499		4,499	U
121	0604940D8Z Central Test and Evaluation Investment Development (CTEIP)	06	219,199		219,199	U
122	0604942D8Z Assessments and Evaluations	06	28,706	103,400	132,106	U
124	0605100D8Z Joint Mission Environment Test Capability (JMETC)	06	87,080		87,080	U
125	0605104D8Z Technical Studies, Support and Analysis	06	23,069		23,069	U
127	0605142D8Z Systems Engineering	06	32,429		32,429	U
128	0605151D8Z Studies and Analysis Support - OSD	06	3,797		3,797	U
129	0605161D8Z Nuclear Matters-Physical Security	06	5,302		5,302	U
130	0605170D8Z Support to Networks and Information Integration	06	7,246		7,246	U
131	0605200D8Z General Support to USD (Intelligence)	06	1,874	8,500	10,374	U
133	0605790D8Z Small Business Innovation Research (SEIR)/ Small Business Technology Transfer	06	2,187		2,187	U
134	0605798D8Z Defense Technology Analysis	06	22,650		22,650	U
137	0605804D8Z Development Test and Evaluation	06	19,541		19,541	U
140	0606100D8Z Budget and Program Assessments	06	4,014		4,014	U
141	0606225D8Z ODNA Technology and Resource Analysis	06		1,000	1,000	U

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

Program			FY 2017			
Line Element			PB Request		FY 2017	S
No	Number	Item	Act	PL 114-254	Request	PB Remaining e
				Base+OCO	Base+OCO	c
142	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	2,072		2,072 U
147	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	916		916 U
149	0305193D8Z	Cyber Intelligence	06	18,523		18,523 U
151	0804767D8Z	COCOM Exercise Engagement and Training Transformation (CE2T2) - MHA	06	34,384		34,384 U
		Management Support		522,166	112,900	635,066
157	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	16,195		16,195 U
158	0607310D8Z	CWMD Systems: Operational Systems Development	07	4,194		4,194 U
173	0303140D8Z	Information Systems Security Program	07	8,876		8,876 U
186	0305186D8Z	Policy R&D Programs	07	6,204		6,204 U
187	0305199D8Z	Net Centricity	07	17,971		17,971 U
196	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,037		2,037 U
201	0307577D8Z	Intelligence Mission Data (IMD)	07	13,800		13,800 U
		Operational System Development		69,277		69,277
		Total Research, Development, Test & Eval, DW		3,430,277	340,408	3,770,685

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54	03	0603769D8Z	Advanced Distributed Learning.....	Volume 3 - 3

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

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63	04	0603600D8Z	WALKOFF.....	Volume 3 - 5
87	04	0604132D8Z	Missile Defeat Project.....	Volume 3 - 7
88	04	0604250D8Z	Advanced Innovative Technologies.....	Volume 3 - 9

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

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111	05	0605027D8Z	OUSD(C) IT Development Initiative.....	Volume 3 - 11

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

Line #	Budget Activity	Program Element Number	Program Element Title	Page
122	06	0604942D8Z	Assessments & Evaluations.....	Volume 3 - 15
131	06	0605200D8Z	General Support to OUSD(I).....	Volume 3 - 17
141	06	0606225D8Z	ODNA Technology & Research Analysis.....	Volume 3 - 19

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Advanced Innovative Technologies	0604250D8Z	88	04.....	Volume 3 - 9
Assessments & Evaluations	0604942D8Z	122	06.....	Volume 3 - 15
General Support to OUSD(I)	0605200D8Z	131	06.....	Volume 3 - 17
Missile Defeat Project	0604132D8Z	87	04.....	Volume 3 - 7
ODNA Technology & Research Analysis	0606225D8Z	141	06.....	Volume 3 - 19
OUSD(C) IT Development Initiative	0605027D8Z	111	05.....	Volume 3 - 11
Technology Innovation	0603375D8Z	37	03.....	Volume 3 - 1
WALKOFF	0603600D8Z	63	04.....	Volume 3 - 5

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>											
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)</i>	PE 0603375D8Z / <i>Technology Innovation</i>											
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	10.000	25.000	89.923	-	89.923	59.917	79.919	99.921	99.921	Continuing	Continuing
P375: <i>Technology Innovation</i>	-	10.000	25.000	39.923	-	39.923	59.917	79.919	99.921	99.921	Continuing	Continuing
P811: <i>Advanced Analytics and Intelligence, Surveillance, and Reconnaissance (ISR) Projects</i>	-	0.000	0.000	50.000	-	50.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

AMENDED BUDGET REQUEST JUSTIFICATION: \$50.000 million is required to address emergency warfighting readiness requirements as described below. These funds are in support of the Advanced Analytics and Intelligence, Surveillance, and Reconnaissance (ISR) Projects.

This program seeks to improve datahub by developing prototype U.S. commercial-based, micro-synthetic aperture radar (SAR) satellite technology together with deep learning analytics that will improve the timeliness and exploitation of raw SAR-based imagery. The intent is to leverage the commercialization and peacetime use of this prototype technology and analytics via data service agreements in support of Project datahub's automated enemy pattern of life analysis. Low cost, non-resilient (or non-protected) class of satellite technology capable of producing medium resolution imagery (but with the potential of increased frequency) will be developed and investigated. Resulting data and imagery produced from the micro-satellite prototype will be in a format capable for rapid ingestion into a cloud-based computing architecture - under Project datahub - for real-time object detection analysis. The upgrade of SAR technology and analytics to the datahub architecture will provide the Combatant Commands (and Services) with the capability to track enemy patterns of life 24/7, all weather, and day/night across large areas of responsibly at machine speed. This will enable the Combatant Commands to better posture, prepare, and/or pre-deploy their limited assets and forces to counter threats against nuclear-capable, mobile missiles systems. This project will conclude with a year long pilot effort with three participating Combatant Commands, together with the Army, Navy, and Air Force.

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

The Department of Defense (DoD) has a long history of technological breakthroughs and innovations originating from within the Department. In order to sustain technological superiority, the Department must take advantage of the rapid evolution of emerging commercial technologies that, when integrated with military systems and novel concepts of operation, will be a source of battlefield advantage.

The Program is focused on developing space-based Intelligence, Surveillance, and Reconnaissance (ISR), Artificial Intelligence-driven Geospatial Intelligence (GEOINT), and Fix-Find-Finish-Exploit-Assess (F3EA) into an integrated capability for defeating threats posed by nuclear-capable, mobile missile - a problem set often plagued by sparse data. Our approach is composed of three innovated building blocks: 1) Machine learning techniques applied to commercial GEOINT for automated anomaly and change detection throughout the country of interest - crucial element for enhancing our indications and warnings required for precision strikes; 2) Machine-Human collaboration architecture to accelerate the F3EA joint forces targeting and decision-making cycle; and 3) Autonomous weaponizing demonstration - Exercise Black Cloud for timely precision strikes to hold mobile missile systems at risk. These innovation blocks will serve as the foundation for all the investment selection criteria for the pilot program.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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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 0603375D8Z I <i>Technology Innovation</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	10.000	25.000	89.923	-	89.923
Total Adjustments	10.000	25.000	89.923	-	89.923
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	25.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Technology Innovation	-	-	40.000	-	40.000
• Other Reprogrammings	10.000	-	-	-	-
• Economic Assumptions	-	-	-0.077	-	-0.077
• FY 2017 Request for Additional Appropriations	-	-	50.000	-	50.000

**Change Summary Explanation**

AMENDED BUDGET REQUEST JUSTIFICATION: +\$50.000 million is required to address emergency warfighting readiness requirements in support of the Advanced Analytics and Intelligence, Surveillance, and Reconnaissance (ISR) Projects.

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**Exhibit R-2, RDT&E Budget Item Justification:** Request for Additional Appropriations 2017 Office of the Secretary Of Defense **Date:** March 2017

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)					PE 0603769D8Z / Advanced Distributed Learning							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	10.384	0.000	10.384	0.000	0.000	0.000	0.000	Continuing	Continuing
776: Advance Distributed Learning	0.000	0.000	0.000	10.384	0.000	10.384	0.000	0.000	0.000	0.000	Continuing	Continuing

## Note

AMENDED BUDGET REQUEST JUSTIFICATION: FY 2017 OMNIBUS Reprogramming: \$+10.384 million is realigned from Operations and Maintenance to Research, Development, Test, and Evaluation (RDT&E) in FY 2017. Funds will be budgeted in RDT&E for FY 2018 and out to continue the research, development and overall support of the program.

This is a new start program to OSD from the Defense Human Resources Activity.

## A. Mission Description and Budget Item Justification

Advanced Distributed Learning (ADL): Established in 1997 to standardize and modernize training and education management and delivery. The vision of the ADL Initiative is to provide access to the highest-quality learning and performance aiding that can be tailored to individual needs and delivered cost-effectively, at the right time and in the right place.

ADL program analyzes tests and prototypes emerging trends in Learning Science and Technologies (LS&T), allowing for possible application into existing and future distributed learning (DL) programs. Recommends the appropriate integration of new and emerging LS&T to include mobile technologies, social networking, and instructional methods, to include media, to achieve the most effective and cost efficient training solutions. Researches and develops instructional technologies/ methodologies (Sharable Content Object Reference Model [SCORM], Learning Management Systems [LMSs], Instructional Systems Design [ISD], etc.) toward enhancing DL. Provides/develops blended learning solutions to military and other organizations' training requirements to include web-based technologies, mobile and social technologies, game-based and Virtual World applications, Interactive Multimedia Instruction (IMI), Modeling & Simulation (M&S), and other instructional technologies. Conducts research into all aspects of improving the quality and cost-effectiveness of ADL programs. Provides program management and technical expertise in support of the ADL Initiative Broad Agency Announcement (BAA) research program and applies advanced instructional design principles across education, learning, and training domains. Provides subject matter support to educational and training programs in terms of quality and adherence to policies and standards.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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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 0603769D8Z I <i>Advanced Distributed Learning</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	10.384	-	10.384
Total Adjustments	0.000	0.000	10.384	-	10.384
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Realignment of Funds from O&M to RDT&E	-	-	10.384	0.000	10.384

**Change Summary Explanation**

FY 2017 adjustment of \$+10.384 is the realignment of ADL funds from O&M to RDT&E.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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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 0603600D8Z I WALKOFF
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	63.988	98.547	90.387	98.143	-	98.143	96.482	101.539	102.876	104.857	Continuing	Continuing
600: WALKOFF	63.988	98.547	90.387	98.143	-	98.143	96.482	101.539	102.876	104.857	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

AMENDED BUDGET REQUEST JUSTIFICATION: \$8.5 million is required to address emergency wartime readiness requirements. Details are classified.

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

Classified.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	90.558	90.567	86.990	-	86.990
Current President's Budget	98.547	90.387	98.143	-	98.143
Total Adjustments	7.989	-0.180	11.153	-	11.153
• Congressional General Reductions	-	-0.180			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.000	-			
• SBIR/STTR Transfer	-2.301	-			
• Departmental Adjustment	10.290	-	2.653	-	2.653
• FY 2017 Request for Additional Appropriations	-	-	8.500	-	8.500

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<b>Title:</b> WALKOFF	98.547	90.387	98.143
<b>FY 2015 Accomplishments:</b> Classified.			
<b>FY 2016 Plans:</b>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense							<b>Date:</b> March 2017				
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 Program Element (Number/Name)</b> PE 0603600D8Z I WALKOFF							
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>							<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>		
Classified.											
<b>FY 2017 Plans:</b> Classified.											
<b>Accomplishments/Planned Programs Subtotals</b>							98.547	90.387	98.143		
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0603600D8Z O&M DW: WALKOFF	0.000	6.310	2.619	-	2.619	2.852	2.835	2.865	2.921	Continuing	Continuing
<b>Remarks</b>											
<b>E. Acquisition Strategy</b> Classified.											
<b>F. Performance Metrics</b> Classified.											



**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: Request for Additional Appropriations 2017 Office of the Secretary Of Defense										Date: March 2017		
Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0604132D8Z I Missile Defeat Project							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	185.500	-	185.500	46.000	0.000	0.000	0.000	Continuing	Continuing
P072: Missile Defeat Project	-	0.000	0.000	185.500	-	185.500	46.000	0.000	0.000	0.000	Continuing	Continuing
Program MDAP/MAIS Code: Project MDAP/MAIS Code(s): 000												

**Note**

This is a new program element in FY 2017.

AMENDED BUDGET REQUEST JUSTIFICATION: \$140.500 million is required to address emergency warfighting readiness requirements. These efforts include:

- Advanced airborne Time Critical Targeting surrogate test platforms, \$48.000 million.
- Game changing sensing demonstration satellite for find and fix, \$22.000 million.
- Find and Mark Experiment for Mobile Missiles, \$7.200 million.
- National security site modifications to test, evaluate, and prototype architectures and assess their ability to improve time critical targeting and defeat of road-mobile threats, \$51.300 million.
- Advanced risk reduction demonstrations to improve observational persistence, \$12.000 million.

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

The Missile Defeat Project counters the growing global advancement and proliferation of road-mobile ballistic missile threats. This effort develops and integrates new capability and architectures to optimize fielded weapon systems and C4ISR to defeat these emerging threats.

The Missile Defeat Project coordinates and integrates DoD and Intelligence Community (IC) efforts to develop counter threat capability. This effort measures the effectiveness of new architectures and revolutionary concepts against evolving threats by working with the IC, Combatant Commands, government labs, program offices, industry, and academia.

To meet this challenge the Missile Defeat Project leverages existing test and simulated environments to perform analysis of industry and government reference concepts and architectures to provide innovative technical solutions for missile defeat. We are developing virtual and physical testbeds to robustly test, evaluate, and prototype architectures and assess its ability to improve time critical targeting and defeat of road-mobile threats. The virtual testbed complements testing at physical ranges by providing an infrastructure for addressing different training, test, and evaluation needs. In addition, this effort includes systems engineering and analysis to devolve technical requirements, identify promising solutions, and inform future investment decisions.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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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 0604132D8Z I <i>Missile Defeat Project</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	185.500	-	185.500
Total Adjustments	0.000	0.000	185.500	-	185.500
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Realignment for Higher Priority Programs	-	-	45.000	-	45.000
• FY 2017 Request for Additional Appropriations	-	-	140.500	-	140.500

**Change Summary Explanation**

The FY 2017 funding adjustment is a result of realigning funds from other programs within OSD AT&L to establish the new Missile Defeat project. The amended budget request for an additional \$140.500 million is required to address emergency warfighting readiness requirements.

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**Exhibit R-2, RDT&E Budget Item Justification:** Request for Additional Appropriations 2017 Office of the Secretary Of Defense **Date:** March 2017

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604250D8Z / Advanced Innovative Technologies							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	125.811	170.872	468.881	846.470	-	846.470	544.547	345.708	110.300	0.000	Continuing	Continuing
P250: Advanced Innovative Technologies	125.811	170.872	468.881	846.470	-	846.470	544.547	345.708	110.300	0.000	Continuing	Continuing

## Note

AMENDED BUDGET REQUEST JUSTIFICATION: \$1.6 million is required to address emergency warfighting readiness requirements. These funds will support SCO RDT&E Unmanned Aerial Vehicle Payloads Project and additional Perdix Payloads.

## A. Mission Description and Budget Item Justification

The Strategic Capabilities Office (SCO) identifies, analyzes, demonstrates, and transitions game-changing applications of existing and near-term technology (and other U.S. Government capabilities) to shape and counter emerging threats. Currently focused on the Asia-Pacific Rebalance, SCO combines capability innovation with concepts of operation and information management to develop novel concepts often crossing Service, Defense-Intelligence, and multi-classification divides. This helps to solve critical national security challenges in partnership with the Services, Defense Agencies, Combatant Commands (COCOMS), Joint Chiefs of Staff, Intelligence Community, and the Office of the Secretary of Defense (OSD). SCO analyzes, demonstrates, and red-teams these concepts on an accelerated time frame to enable subsequent programmatic decisions on alternative capabilities that have greater mission impact and lower cost.

The Advanced Innovative Technologies Program Element (PE) contains projects that include in-depth analysis to determine technical and operational performance and risk, component and subsystem-level prototyping and testing to reduce risk, and operational demonstrations to prove concept viability prior to subsequent programmatic decisions. Due to the nature of these projects, specific applications and detailed plans are available at a higher classification level.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	174.752	469.798	422.206	-	422.206
Current President's Budget	170.872	468.881	846.470	-	846.470
Total Adjustments	-3.880	-0.917	424.264	-	424.264
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.812	-			
• Other Internal Baseline Adjustment	-	-	433.618	-	433.618
• FY15 Reprog. for Cancelled Account	-0.068	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: Request for Additional Appropriations 2017 Office of the Secretary Of Defense				Date: March 2017	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0604250D8Z I Advanced Innovative Technologies			
• FFRDC Reduction	-	-0.917	-	-	-
• Efficiency Reductions	-	-	-7.723	-	-7.723
• Economic Assumptions	-	-	-3.231	-	-3.231
• FY 2017 Request for Additional Appropriations	-	-	1.600	-	1.600
Change Summary Explanation					
Funding decreases were used to pay for higher priority DoD Bills. This update reflects continued project funding in FY 2017 for six SCO projects: Land-Based Rail Gun (LBRG) and Land-Based and Sea-Based Powder Guns, Advanced Navigation, Enhanced Munitions, Sea Dragon, Unmanned Aerial Vehicle Payloads, and Sea Mob.					
AMENDED BUDGET REQUEST JUSTIFICATION: \$1.600 million is required to address emergency warfighting readiness requirements. These funds are associated with SCO RDT&E Unmanned Aerial Vehicle Payloads Project and additional Perdix Payloads.					

# UNCLASSIFIED

**Exhibit R-2, RDT&E Budget Item Justification:** Request for Additional Appropriations 2017 Office of the Secretary Of Defense **Date:** March 2017

<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 0605027D8Z / OUSD(C) IT Development Initiative							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	27.367	6.300	4.962	16.524	-	16.524	0.000	0.000	0.000	0.000	-	-
927: Next Generation Resource Management System	27.367	6.300	4.962	7.224	-	7.224	0.000	0.000	0.000	0.000	Continuing	Continuing
929: Financial Management Certification Tracking and Reporting Tool	-	0.000	0.000	2.000	-	2.000	0.000	0.000	0.000	0.000	Continuing	Continuing
930: Universe of Transactions	-	0.000	0.000	7.300	-	7.300	0.000	0.000	0.000	0.000	Continuing	Continuing

## Note

AMENDED BUDGET REQUEST JUSTIFICATION: \$16.524 million is required to support the following efforts:

Next Generation Resource Management System (NGRMS): FY17 OMNIBUS Reprogramming: \$7.224 million is realigned from the Defense Logistics Agency to OSD to align funding with the program office for more efficient execution.

Financial Management Certification Tracking and Reporting Tool (FM-CTRT): \$2.000M new start support to plan, develop, test and implement the Department of Defense FM-CTRT. The DoD FM-CTRT replaces the WHS FM Learning Management System (LMS) DoD Financial Management Certification Program (DFMCP) system of record. After three years, FM LMS has performed barely adequately in implementing section 1051 of the FY 2012 NDAA, Public Law 112-8 for improved audit readiness and analytical capability for the 54,000 DoD FM workforce.

Universe of Transactions: \$7.300 million is for the first phase of the Auditable Universe of Data Intelligence Tool implementation with U.S. Special Operations Command (USSOCOM) and other Defense Agency systems to develop a baseline application and configuration to support financial statement audits. When the first phase has been successfully completed, the second phase will integrate into the full solution any remaining accounting and business feeder systems that execute TI-97 funds and be the solution for DATA Act. The current time line for the first phase is estimated to be completed by December 2017. The follow on phase for DATA Act and remaining systems in scope will require development activities through September 2018. This effort complies with the NDAA requirement to use big data technologies to support financial audits.

## A. Mission Description and Budget Item Justification

As the Department of Defense strategic, operational, and tactical plans and objectives transform the war fighter with new capabilities and doctrine, the budgeting and accountability of funds used to pursue the Department objectives will become more complicated and detailed for senior leaders to make decisions with supporting rationale for the taxpayer. Incorporating information technology toward current and emerging business processes manifesting into a state-of-the art system of systems will result in increasing efficiencies, timely diagnostics, and reducing lifecycle costs to maintain, sustain and repair.

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense		<b>Date:</b> March 2017
<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 0605027D8Z I OUSD(C) IT Development Initiative	
<p>This initiative exploits emerging technology, processes, trends, capabilities, and techniques to incorporate state-of-the-art information technology enabling the ability, agility, and level of fidelity to collect, process, administrate and report resource management data and to automate business processes within a more robust analytical environment within the Office of the Under Secretary of Defense (Comptroller) OUSD(C).</p>		
<p><b>NEXT GENERATION RESOURCE MANAGEMENT SYSTEM:</b></p> <p>The Department’s budget focuses on institutionalizing and financing our capabilities to fight the wars we are in today and the scenarios we are most likely to face in the years ahead, while at the same time mitigating risk and providing for contingency operations. It also includes a fundamental overhaul of the DoD’s approach to procurement, acquisition, and contracting. As such, the complex details of budgeting and tracking of funds become increasingly critical to senior leader decision making and to provide accountability to the taxpayer. Incorporating information technology toward current and emerging business processes manifesting into a state-of-the art system of systems will result in increasing efficiencies, timely diagnostics, and reducing lifecycle costs to maintain, sustain and repair.</p> <p>Today, the Office of the Under Secretary of Defense Comptroller OUSD(C) and the Cost Analysis and Program Evaluation (CAPE) use various distinct automated systems (Comptroller Information System (CIS), Program Resource Collection Process (PRCP), Supplemental Resource Collection Process (SRCP), Budget Exhibits Generator and Standard Data Collection System (SDCS)) to formulate, justify, and execute DoD budgets. These six or more systems interact with at least several computer-based systems controlled by external organizations and agencies. These systems manage very similar financial information, yet each uses its own scheme for representing information. Much of the information managed by these systems is redundant. Cross-system data representations and redundancies make it difficult to exchange and to reconcile information. The capabilities provided by Comptroller systems, in some cases, fail to deliver services needed by its users, or fail to operate in ways that complement current and emerging business practices. They fail to give executives information in a comprehensible form, making it difficult to draw conclusions. Data disparities and functional redundancy make these systems more costly to maintain than they need to be.</p> <p>There is a critical need for the development of a state-of-the-art information technology system to modernize and replace multiple, antiquated legacy systems and processes used to formulate, justify, present and defend the entire Department of Defense Budget in the Office of the Under Secretary of Defense (Comptroller) (OUSD(C)) to meet Title 10 and Title 31 mission and reporting requirements. The Comptroller’s plan for mitigating the deficiencies and capability gaps associated with current systems is development of the Next Generation Resource Management System.</p> <p>This initiative exploits emerging technology, processes, trends, capabilities, and techniques to incorporate state-of-the-art information technology enabling the ability, agility, and level of fidelity to collect, process, administer and report resource management data and to automate business processes within a more robust analytical environment within the Office of the Under Secretary of Defense (Comptroller) OUSD(C). Funded efforts will improve the timeliness of resource management reviews and decisions for senior leaders and Congress.</p>		
<p><b>FINANCIAL MANAGEMENT CERTIFICATION TRACKING AND REPORTING TOOL:</b></p> <p>The Defense Financial Management Certification Program (DFMCP) meets the business requirement to comply with section 1051 of the FY 2012 National Defense Authorization Act (NDAA), Public Law 112-81, authorizing the Secretary of Defense to establish a certification program for the 54,000 Financial Management (FM) workforce in order to improve audit readiness and analytic capability.</p>		

# UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense		<b>Date:</b> March 2017
<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 0605027D8Z I OUSD(C) IT Development Initiative
<p>The Department of Defense has a requirement to strengthen the professional development of the DoD financial management workforce and to ensure that DoD financial managers are properly trained to meet current and future requirements to support the Warfighter. The DFMCP is the approved strategy to meet this requirement. The DFMCP needs a tracking and reporting tool for web-based course training and exams, a robust reporting capability for standard and ad hoc reports, a course search capability, sort filtering capability, and a capability to attach multiple documents once the training certification requirements are completed. The tool will self-guides users through the policies and procedures required by the program, without the burden of extensive training on how to use the system itself. The tool will enable program operations, with embedded business rules, that represent policy and procedures, and have internal controls that prevent improper actions. The tool will be intuitive, track and record activities, and enable users to perform correct actions the first time. The tool will provide a reporting tool that furnishes leadership with near real time management reports concerning FM Workforce Certification Qualifications and be adaptable to reasonable changes in DFMCP policies and procedures.</p> <p>UNIVERSE OF TRANSACTIONS:            Funding will support financial audit. A Universe of Transaction (UoT) inclusive of all Department of Defense (DoD) Wide Appropriation General Fund (TI-97) information is needed to support reconciliation of fifteen General Fund accounting systems, reconciliation of eighteen business feeder systems to general fund accounting system, and validating UoT capabilities through the audit examinations of DCMA and DoDEA.</p> <p>The DoD TI-97 UoT requires:</p> <ul style="list-style-type: none"> <li>• All supporting TI-97 data that rolls up to the DoD financial statement (detailed accounting data reconciled to the financial statement)</li> <li>• Proof of the completeness of all transactional data reported within the UoT (detailed accounting data reconciled to business events)</li> <li>• Ability to extract subset populations</li> <li>• Ability to secure and protect the data within the UoT</li> </ul> <p>The failure to meet these requirements will result in the Department unable to successfully conduct and pass an audit.</p> <p>To achieve these requirements, the Office of the Under Secretary of Defense (Comptroller) is creating a tool called the Auditable Universe of Data Intelligence Tool (AUD-IT). This tool has the potential to significantly improve DoD's capability and capacity to handle large volumes of standard and non-standard financial data. Both an application and analytical platform, the AUD-IT leverages an open-source software framework for storing data and running applications to deliver a complete UoT for TI-97.</p> <p>The first phase of AUD-IT implementation is a proof of concept with the U.S. Special Operations Command (USSOCOM) systems to develop a baseline application and configuration. When the first phase has been successfully completed, the second phase will integrate into the full solution any remaining accounting and business feeder systems that execute TI-97 funds and be the solution for DATA Act. The current timeline for the proof of concept is estimated to be completed by December 2017.</p> <p>AUD-IT is a joint effort between Office of the Deputy Chief Financial Officer (ODCFO), Office of the Deputy Chief Management Officer (ODCMO), Office of the Chief Information Officer (OCIO), USSOCOM, and the Defense Finance and Accounting Service (DFAS).</p>		

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: Request for Additional Appropriations 2017 Office of the Secretary Of Defense				Date: March 2017			
Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)			R-1 Program Element (Number/Name) PE 0605027D8Z I OUSD(C) IT Development Initiative				
B. Program Change Summary (\$ in Millions)			FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget			6.500	5.962	0.000	-	0.000
Current President's Budget			6.300	4.962	16.524	-	16.524
Total Adjustments			-0.200	-1.000	16.524	-	16.524
• Congressional General Reductions			-	-			
• Congressional Directed Reductions			-	-1.000			
• Congressional Rescissions			-	-			
• Congressional Adds			-	-			
• Congressional Directed Transfers			-	-			
• Reprogrammings			-0.003	-			
• SBIR/STTR Transfer			-0.197	-			
• Congressional Directed Reduction			-	-	0.000	-	0.000
• FY 2017 Request for Additional Appropriations			-	-	16.524	-	16.524
Change Summary Explanation							
AMENDED BUDGET REQUEST JUSTIFICATION: +\$16.524 million is required to support the following efforts:							
Next Generation Resource Management System (NGRMS) +\$7.224 million (Program transfer from DLA to OSD)							
Financial Management Certification Tracking and Reporting Tool +\$2.000 million							
Universe of Transactions (UoT) +\$7.300 million							



**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: Request for Additional Appropriations 2017 Office of the Secretary Of Defense										Date: March 2017		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support					PE 0604942D8Z / Assessments & Evaluations							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	6.770	15.220	127.827	132.106	-	132.106	30.375	31.862	32.212	32.840	Continuing	Continuing
P805: Assessments & Evaluations	6.770	15.220	27.827	28.706	-	28.706	30.375	31.862	32.212	32.840	Continuing	Continuing
P807: Cyber Vulnerabilities	-	0.000	100.000	100.000	-	100.000	0.000	0.000	0.000	0.000	Continuing	Continuing
P810: Continuity Enterprise Capability Based Assessment (CBA)	-	0.000	0.000	3.400	-	3.400	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

AMENDED BUDGET REQUEST JUSTIFICATION: \$103.400 million is required to address emergency warfighting readiness requirements.

Cyber Vulnerabilities (Project P807): \$100.0 million is required to support an existing cyber vulnerability effort. The National Defense Authorization Act (NDAA) 2016 Section 1647, directed and authorized up to \$200M for this effort. The Department was directed to prioritize a list of Major Weapon Systems, assess those systems for cyber vulnerabilities and develop mitigation strategies to improve mission assurance. The Department estimated the total effort outlined would require approximately \$200M. In CY 2016 OSD(AT&L) allocated \$100 million of Congressional funds to the Services to complete assessments of Quadrennial Defense Review (QDR) mission area 1 and 2 Weapon Systems. The Department is on track to complete those assessments by CY 2018; with QDR 3-12 in progress and expected to be completed by CY 2019. Additional details are classified. For further information at a higher classification, please contact the Director of OUSD (AT&L)/DASD C3CB at (703) 697-6673.

This is not a new start effort in FY 2017 to the Assessments and Evaluation PE. The Department realigned funds into this PE using an internal reprogramming action, FY 16-29 IR, for proper execution of the congressional add (\$+100 million) appropriated in the Consolidated Appropriations Act, 2016.

Continuity Enterprise Capability Based Assessment (CBA) (Project P810): \$3.4 million is required to support a Department of Defense (DoD) Continuity Enterprise Capability Based Assessment (CBA), which will assess gaps and recommend material/non-material solutions in three interconnected analytical phases. The strategic context is to systematically understand all elements of the defense continuity enterprise in order to sustain an agile and flexible continuity posture that ensures the Department's ability to execute its essential functions in times of national crisis. Phase 1 focuses on enterprise communications, Phase 2 focuses on system level communications, continuity operations (facilities, devolution, logistics, transportation, and essential functions) and phase 3 on reconstitution (what is required for return to normal operations) after a catastrophic event. Each phase will identify and define requirements, gaps, risk, and offer recommendations to reduce operational risk. Additional details are classified. For further information at a higher classification, please contact the Director of Special Programs, OUSD (AT&L)/DSP at (703) 697-1282.

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: Request for Additional Appropriations 2017 Office of the Secretary Of Defense				Date: March 2017		
Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 0604942D8Z / Assessments & Evaluations				
A. Mission Description and Budget Item Justification						
The Assessments and Evaluations (P805) is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress. Addition details are classified. For further information, please contact the Director of Special Programs, OUSD (AT&L)/DSP at (703) 697-1282.						
B. Program Change Summary (\$ in Millions)		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget		15.639	28.618	29.576	-	29.576
Current President's Budget		15.220	127.827	132.106	-	132.106
Total Adjustments		-0.419	99.209	102.530	-	102.530
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-0.006	100.000			
• SBIR/STTR Transfer		-0.413	-0.791			
• Economic Assumptions Adjustment		-	-	-0.226	-	-0.226
• Departmental Efficiency Adjustment		-	-	-0.545	-	-0.545
• Other Adjustments		-	-	-0.099	-	-0.099
• FY 2017 Request for Additional Appropriations		-	-	103.400	-	103.400
Change Summary Explanation						
FY 2017 AMENDED BUDGET REQUEST JUSTIFICATION: \$103.400 million is required to address emergency warfighting readiness requirements.						
Cyber Vulnerabilities: +\$100.000						
Continuity Enterprise Capability Based Assessment (CBA): +\$3.400						

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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<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 0605200D8Z / General Support to OUSD(I)											
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	3.174	2.846	1.686	10.374	-	10.374	2.214	2.393	2.415	2.466	Continuing	Continuing
001: <i>Sensitive Activities</i>	2.447	2.128	1.061	1.122	-	1.122	1.439	1.591	1.605	1.647	Continuing	Continuing
002: <i>Defense Civilian Intelligence Personnel System</i>	0.312	0.268	0.275	0.402	-	0.402	0.425	0.452	0.460	0.469	Continuing	Continuing
003: <i>Intelligence, Surveillance, Reconnaissance Operations</i>	0.415	0.450	0.350	8.850	-	8.850	0.350	0.350	0.350	0.350	Continuing	Continuing

**Note**

AMENDED BUDGET REQUEST JUSTIFICATION: \$8.5 million is required to address emergency wartime readiness requirements.

The funds are required to accelerate Joint Process, Exploitation, & Dissemination (JPED) automation within 12 months to defeat Islamic State of Iraq and the Levant (ISIL). The November JPED Enterprise summit, Warfighting SIG, and multiple strategy and policy documents emphasize a greater need for automation with the JPED Enterprise to reduce the human factors burden of Process, Exploitation, & Dissemination (PED), provide analytic efficiency by reducing "screen monitoring" and allowing for deeper intelligence analysis, increase absolute volume of PED conducted, improve sensor tipping & cueing, and ultimately produce more actionable intelligence to enable the warfighter in the Counter ISIL campaign. These funds will support the development, test, and evaluation of commercial items, that seek bring artificial intelligence technologies, including advanced neural nets that provide object detection, classification, recognition, tracking, and alerting, along with more advanced PED automation functions like semantic segmentation, logical expression, summarization, and anomaly detection and description.

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

001: Sensitive Activities focuses on developing technologies and their applications on sensitive activities within the Office of the Under Secretary of Defense for Intelligence (OUSD(I)).

002: Defense Civilian Intelligence Personnel System (DCIPS) provides enhancements and updates to the Performance Appraisal Application in the Defense Civilian Personnel Data System used by Military Service Intelligence Components, the Defense Security Service and the OUSD(I) to evaluate the performance of their DCIPS employees. Funds are also used to provide enhancements and updates to the classified Global Force Management (GFM) Defense Intelligence Organizational Server (DIOS), a priority of the Vice Chairman of the Joint Chiefs of Staff, which tracks both civilian and military positions, associated grades and skill levels and hierarchical organizational relationships.

003: Intelligence, Surveillance, Reconnaissance (ISR) Operations requires expert engineering and technical assessments on a wide range of ISR operational issues. Funds will be used to support senior level discussions and decisions on ISR Operations related initiatives, platforms and sensors.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> Request for Additional Appropriations 2017 Office of the Secretary Of Defense	<b>Date:</b> March 2017
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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 0605200D8Z I <i>General Support to OUSD(I)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	2.850	2.120	2.274	-	2.274
Current President's Budget	2.846	1.686	10.374	-	10.374
Total Adjustments	-0.004	-0.434	8.100	-	8.100
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.434			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Departmental Adjustment	-0.004	-	-0.400	-	-0.400
• FY 2017 Request for Additional Appropriations	-	-	8.500	-	8.500

**Change Summary Explanation**

FY 2017 adjustments is required to address emergency wartime readiness requirements.

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**Exhibit R-2, RDT&E Budget Item Justification:** Request for Additional Appropriations 2017 Office of the Secretary Of Defense **Date:** March 2017

<b>Appropriation/Budget Activity</b>					<b>R-1 Program Element (Number/Name)</b>							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support					PE 0606225D8Z / ODNA Technology & Research Analysis							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	0.000	0.000	3.500	1.000	0.000	1.000	0.000	0.000	0.000	0.000	Continuing	Continuing
225: Technology and Research Analysis	0.000	0.000	3.500	1.000	0.000	1.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

AMENDED BUDGET REQUEST JUSTIFICATION: \$1.0 million is required to address emergency warfighting readiness requirements to support the following efforts:

- Develop analysis of potential advances in machine learning and human machine teaming
- Continue to conduct analysis of future concepts of operation and possible courses of action and responses to emerging capabilities
- Invest in assessment of new research areas to assess potential revolutionary advances and their implications to the character of future military conflict

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

The Office of Net Assessment develops and coordinates analyses that examine the standing trends and future prospects of U.S. and other military capabilities and military potential. The net assessments address near and long-term problems and opportunities for the U.S. military forces to help counter technological advantages of potential adversaries of the United States. These efforts will pursue research to analyze the future security environment.

<b><u>B. Program Change Summary (\$ in Millions)</u></b>	<b><u>FY 2015</u></b>	<b><u>FY 2016</u></b>	<b><u>FY 2017 Base</u></b>	<b><u>FY 2017 OCO</u></b>	<b><u>FY 2017 Total</u></b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	3.500	1.000	-	1.000
Total Adjustments	0.000	3.500	1.000	-	1.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	3.500			
• SBIR/STTR Transfer	-	-			
• FY 2017 Request for Additional Appropriations	-	-	1.000	-	1.000

**Change Summary Explanation**

FY 2017 funding request of +\$1.000 million is required to address emergency warfighting readiness requirements.

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