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**Department of Defense  
Fiscal Year (FY) 2018 Budget Estimates**

May 2017



**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 • Budget Estimates FY 2018 • RDT&E Program

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Department of Defense  
 FY 2018 President's Budget Request  
 Exhibit R-1 FY 2018 President's Budget Request  
 Total Obligational Authority  
 (Dollars in Thousands)

25 Apr 2017

Appropriation	FY 2016 Base + OCO	FY 2017 PB Request with CR Adj Base	FY 2017 Total PB Requests* with CR Adj Base	FY 2017 PB Request with CR Adj OCO	FY 2017 Total PB Requests* with CR Adj OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj OCO
Research, Development, Test & Eval, DW	252,313	251,852	248,716				
Total Research, Development, Test & Evaluation	252,313	251,852	248,716				

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Department of Defense  
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 (Dollars in Thousands)

25 Apr 2017

Appropriation	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Research, Development, Test & Eval, DW	251,852	248,716		248,716	256,494		256,494
Total Research, Development, Test & Evaluation	251,852	248,716		248,716	256,494		256,494



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<b>Summary Recap of Budget Activities</b> -----							
System Development And Demonstration	32,424	7,600	7,600				
Management Support	8,728	15,336	12,200				
Operational System Development	211,161	228,916	228,916				
Total Research, Development, Test & Evaluation	252,313	251,852	248,716				
<b>Summary Recap of FYDP Programs</b> -----							
General Purpose Forces	63,341	57,501	57,501				
Intelligence and Communications	165,858	194,351	191,215				
Research and Development	23,114						
Administration and Associated Activities							
Space							
Total Research, Development, Test & Evaluation	252,313	251,852	248,716				

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<b>Summary Recap of Budget Activities</b> -----							
System Development And Demonstration	7,600	7,600		7,600	2,576		2,576
Management Support	15,336	12,200		12,200	22,111		22,111
Operational System Development	228,916	228,916		228,916	231,807		231,807
Total Research, Development, Test & Evaluation	251,852	248,716		248,716	256,494		256,494
<b>Summary Recap of FYDP Programs</b> -----							
General Purpose Forces	57,501	57,501		57,501	59,490		59,490
Intelligence and Communications	194,351	191,215		191,215	191,249		191,249
Research and Development							
Administration and Associated Activities					5,113		5,113
Space					642		642
Total Research, Development, Test & Evaluation	251,852	248,716		248,716	256,494		256,494

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Operational System Development	228,916	228,916		228,916	231,807		231,807
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Summary Recap of FYDP Programs -----							
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Intelligence and Communications	194,351	191,215		191,215	191,249		191,249
Research and Development							
Administration and Associated Activities					5,113		5,113
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Defense Information Systems Agency	252,313	251,852	248,716				
Total Research, Development, Test & Evaluation	252,313	251,852	248,716				

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Appropriation	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Defense Information Systems Agency	251,852	248,716		248,716	256,494		256,494
Total Research, Development, Test & Evaluation	251,852	248,716		248,716	256,494		256,494

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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 2016 Base + OCO	FY 2017 PB Request with CR Adj Base	FY 2017 Total PB Requests* with CR Adj Base	FY 2017 PB Request with CR Adj OCO	FY 2017 Total PB Requests* with CR Adj OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj OCO	S e c
121	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05	18,750							U
135	0303141K	Global Combat Support System	05	13,674	7,600	7,600					U
		System Development And Demonstration		32,424	7,600	7,600					
158	0605502K	Small Business Innovative Research	06	4,364							U
176	0303267K	Auctioned Spectrum Relocation Fund	06	4,364							U
177	0305172K	Combined Advanced Applications	06		15,336	12,200					U
187	0903235K	Joint Service Provider (JSP)	06								U
		Management Support		8,728	15,336	12,200					
196	0208045K	C4I Interoperability	07	63,341	57,501	57,501					U
198	0301144K	Joint/Allied Coalition Information Sharing	07	1,735	5,935	5,935					U
202	0302016K	National Military Command System-Wide Support	07	938	575	575					U
203	0302019K	Defense Info Infrastructure Engineering and Integration	07	9,729	18,041	18,041					U
204	0303126K	Long-Haul Communications - DCS	07	36,884	13,994	13,994					U
205	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	13,384	12,206	12,206					U
210	0303150K	Global Command and Control System	07	19,395	24,438	24,438					U
211	0303153K	Defense Spectrum Organization	07	19,307	13,197	13,197					U
212	0303167K	Pre-Auction Spectrum Relocation Fund	07	100							U

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

Program Line No	Element Number	Item	Act	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Sec
121	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05								U
135	0303141K	Global Combat Support System	05	7,600	7,600		7,600	2,576		2,576	U
		System Development And Demonstration		7,600	7,600		7,600	2,576		2,576	
158	0605502K	Small Business Innovative Research	06								U
176	0303267K	Auctioned Spectrum Relocation Fund	06								U
177	0305172K	Combined Advanced Applications	06	15,336	12,200		12,200	16,998		16,998	U
187	0903235K	Joint Service Provider (JSP)	06					5,113		5,113	U
		Management Support		15,336	12,200		12,200	22,111		22,111	
196	0208045K	C4I Interoperability	07	57,501	57,501		57,501	59,490		59,490	U
198	0301144K	Joint/Allied Coalition Information Sharing	07	5,935	5,935		5,935	6,104		6,104	U
202	0302016K	National Military Command System-Wide Support	07	575	575		575	1,863		1,863	U
203	0302019K	Defense Info Infrastructure Engineering and Integration	07	18,041	18,041		18,041	21,564		21,564	U
204	0303126K	Long-Haul Communications - DCS	07	13,994	13,994		13,994	15,428		15,428	U
205	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	12,206	12,206		12,206	15,855		15,855	U
210	0303150K	Global Command and Control System	07	24,438	24,438		24,438	42,687		42,687	U
211	0303153K	Defense Spectrum Organization	07	13,197	13,197		13,197	8,750		8,750	U
212	0303167K	Pre-Auction Spectrum Relocation Fund	07								U

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213	0303170K	Net-Centric Enterprise Services (NCES)	07	426							U
214	0303228K	Joint Information Environment (JIE)	07		2,789	2,789					U
215	0303267K	Auctioned Spectrum Relocation Fund	07	38,137							U
216	0303430K	Federal Investigative Services Information Technology	07		75,000	75,000					U
217	0303610K	Teleport Program	07	1,665	657	657					U
222	0305103K	Cyber Security Initiative	07	2,881	1,553	1,553					U
233	0305208K	Distributed Common Ground/Surface Systems	07	3,239	3,030	3,030					U
261	1203610K	Teleport Program	07								U
Operational System Development				211,161	228,916	228,916					
Total Research, Development, Test & Eval, DW				252,313	251,852	248,716					

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213	0303170K	Net-Centric Enterprise Services (NCES)	07								U
214	0303228K	Joint Information Environment (JIE)	07	2,789	2,789		2,789	4,689		4,689	U
215	0303267K	Auctioned Spectrum Relocation Fund	07								U
216	0303430K	Federal Investigative Services Information Technology	07	75,000	75,000		75,000	50,000		50,000	U
217	0303610K	Teleport Program	07	657	657		657				U
222	0305103K	Cyber Security Initiative	07	1,553	1,553		1,553	1,686		1,686	U
233	0305208K	Distributed Common Ground/Surface Systems	07	3,030	3,030		3,030	3,049		3,049	U
261	1203610K	Teleport Program	07					642		642	U
		Operational System Development		228,916	228,916		228,916	231,807		231,807	
		<b>Total Research, Development, Test &amp; Eval, DW</b>		<b>251,852</b>	<b>248,716</b>		<b>248,716</b>	<b>256,494</b>		<b>256,494</b>	

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135	0303141K	Global Combat Support System	05	13,674	7,600	7,600					U
		System Development And Demonstration		32,424	7,600	7,600					
158	0605502K	Small Business Innovative Research	06	4,364							U
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177	0305172K	Combined Advanced Applications	06		15,336	12,200					U
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196	0208045K	C4I Interoperability	07	63,341	57,501	57,501					U
198	0301144K	Joint/Allied Coalition Information Sharing	07	1,735	5,935	5,935					U
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210	0303150K	Global Command and Control System	07	19,395	24,438	24,438					U
211	0303153K	Defense Spectrum Organization	07	19,307	13,197	13,197					U
212	0303167K	Pre-Auction Spectrum Relocation Fund	07	100							U

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121	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	05								U
135	0303141K	Global Combat Support System	05	7,600	7,600		7,600	2,576		2,576	U
		System Development And Demonstration		7,600	7,600		7,600	2,576		2,576	
158	0605502K	Small Business Innovative Research	06								U
176	0303267K	Auctioned Spectrum Relocation Fund	06								U
177	0305172K	Combined Advanced Applications	06	15,336	12,200		12,200	16,998		16,998	U
187	0903235K	Joint Service Provider (JSP)	06					5,113		5,113	U
		Management Support		15,336	12,200		12,200	22,111		22,111	
196	0208045K	C4I Interoperability	07	57,501	57,501		57,501	59,490		59,490	U
198	0301144K	Joint/Allied Coalition Information Sharing	07	5,935	5,935		5,935	6,104		6,104	U
202	0302016K	National Military Command System-Wide Support	07	575	575		575	1,863		1,863	U
203	0302019K	Defense Info Infrastructure Engineering and Integration	07	18,041	18,041		18,041	21,564		21,564	U
204	0303126K	Long-Haul Communications - DCS	07	13,994	13,994		13,994	15,428		15,428	U
205	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	12,206	12,206		12,206	15,855		15,855	U
210	0303150K	Global Command and Control System	07	24,438	24,438		24,438	42,687		42,687	U
211	0303153K	Defense Spectrum Organization	07	13,197	13,197		13,197	8,750		8,750	U
212	0303167K	Pre-Auction Spectrum Relocation Fund	07								U

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213	0303170K	Net-Centric Enterprise Services (NCES)	07	426							U
214	0303228K	Joint Information Environment (JIE)	07		2,789	2,789					U
215	0303267K	Auctioned Spectrum Relocation Fund	07	38,137							U
216	0303430K	Federal Investigative Services Information Technology	07		75,000	75,000					U
217	0303610K	Teleport Program	07	1,665	657	657					U
222	0305103K	Cyber Security Initiative	07	2,881	1,553	1,553					U
233	0305208K	Distributed Common Ground/Surface Systems	07	3,239	3,030	3,030					U
261	1203610K	Teleport Program	07								U
	Operational System Development			211,161	228,916	228,916					
Total Defense Information Systems Agency				252,313	251,852	248,716					

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213	0303170K	Net-Centric Enterprise Services (NCES)	07								U
214	0303228K	Joint Information Environment (JIE)	07	2,789	2,789		2,789	4,689		4,689	U
215	0303267K	Auctioned Spectrum Relocation Fund	07								U
216	0303430K	Federal Investigative Services Information Technology	07	75,000	75,000		75,000	50,000		50,000	U
217	0303610K	Teleport Program	07	657	657		657				U
222	0305103K	Cyber Security Initiative	07	1,553	1,553		1,553	1,686		1,686	U
233	0305208K	Distributed Common Ground/Surface Systems	07	3,030	3,030		3,030	3,049		3,049	U
261	1203610K	Teleport Program	07					642		642	U
		Operational System Development		228,916	228,916		228,916	231,807		231,807	
Total Defense Information Systems Agency				251,852	248,716		248,716	256,494		256,494	

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135	05	0303141K	Global Combat Support System.....	Volume 5 - 7

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

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<b>Line #</b>	<b>Budget Activity</b>	<b>Program Element Number</b>	<b>Program Element Title</b>	<b>Page</b>
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177	06	0305172K	Combined Advanced Applications.....	Volume 5 - 19
187	06	0903235K	Joint Service Provider.....	Volume 5 - 21

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

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Exhibit R-1

(Listing by Budget Activity, then Program Element Number)

**BA# 05: System Development & Demonstration (SDD)**

Cost (\$ in Millions)

Line#	BA#	PE#	PE Title	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
121	05	0604764K	Advanced IT Services Joint Program Office (AITS-JPO)	180.919	18.750	0.000	0.000	-	0.000
135	05	0303141K	Global Combat Support System	244.911	13.674	7.600	2.576	-	2.576
<b>Total: System Development &amp; Demonstration (SDD)</b>				425.830	32.424	7.600	2.576	-	2.576

**BA# 06: RDT&E Management Support**

Cost (\$ in Millions)

Line#	BA#	PE#	PE Title	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
158	06	0605502K	Small Business Innovative Research	0.000	4.364	0.000	0.000	-	0.000
177	06	0305172K	Combined Advanced Applications	0.000	0.000	12.200	16.998	-	16.998
187	06	0903235K	Joint Service Provider	-	0.000	0.000	5.113	-	5.113
<b>Total: RDT&amp;E Management Support</b>				0.000	4.364	12.200	22.111	-	22.111

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Exhibit R-1

(Listing by Budget Activity, then Program Element Number)

**BA# 07: Operational Systems Development**

Cost (\$ in Millions)

Line#	BA#	PE#	PE Title	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
196	07	0208045K	C4I Interoperability	631.107	63.341	57.501	59.490	-	59.490
198	07	0301144K	Joint/Allied Coalition Information Sharing	78.860	1.735	5.935	6.104	-	6.104
202	07	0302016K	National Military Command System-Wide Support	6.315	0.938	0.575	1.863	-	1.863
203	07	0302019K	Defense Info. Infrastructure Engineering and Integration	117.426	9.729	18.041	21.564	-	21.564
204	07	0303126K	Long-Haul Communications - DCS	218.752	36.884	13.994	15.428	-	15.428
205	07	0303131K	Minimum Essential Emergency Communications Network (MEECN)	140.481	13.384	12.206	15.855	-	15.855
210	07	0303150K	Global Command and Control System	490.696	19.395	24.438	42.687	-	42.687
211	07	0303153K	Defense Spectrum Organization	152.272	19.307	13.197	8.750	-	8.750
213	07	0303170K	Net-Centric Enterprise Services (NCES)	248.666	0.426	0.000	0.000	-	0.000
214	07	0303228K	Joint Information Environment	0.000	0.000	2.789	4.689	-	4.689
216	07	0303430K	Federal Investigative Services Information Technology	0.000	0.000	75.000	50.000	-	50.000
217	07	0303610K	Teleport Program	43.688	1.665	0.657	0.000	-	0.000
222	07	0305103K	Cybersecurity Initiative	14.086	2.881	1.553	1.686	-	1.686

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Defense Information Systems Agency • Budget Estimates FY 2018 • RDT&E Program

Exhibit R-1

(Listing by Budget Activity, then Program Element Number)

**BA# 07: Operational Systems Development**

Cost (\$ in Millions)

Line#	BA#	PE#	PE Title	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
233	07	0305208K	Distributed Common Ground/Surface Systems	46.899	3.239	3.030	3.049	-	3.049
261	07	1203610K	Teleport Program	0.000	0.000	0.000	0.642	0.000	0.642
<b>Total: Operational Systems Development</b>				2,189.248	172.924	228.916	231.807	0.000	231.807

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**Exhibit R-2, RDT&E Budget Item Justification:** FY 2018 Defense Information Systems Agency **Date:** May 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 0604764K / Advanced IT Services Joint Program Office (AITS-JPO)							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	180.919	18.750	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0	199.669
T26: Leading Edge Pilot Information Technology	180.919	18.750	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	199.669

**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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	18.388	0.000	0.000	-	0.000
Current President's Budget	18.750	0.000	0.000	-	0.000
Total Adjustments	0.362	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	0.362	-			

**Change Summary Explanation**

No change explanation needed.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T26: <i>Leading Edge Pilot Information Technology</i>	180.919	18.750	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	199.669
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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Command and Control (C2) and Combat Support (CS)	2.524	0.000	-
<b>Description:</b> Command and Control (C2) and Combat Support (CS)			
<b>FY 2016 Accomplishments:</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,			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>and transition of emerging technologies and Emergent Capability Technology Demonstrations (ECTDs) that align with COCOM requirements and DISA's Strategic Planning Guidance.</p> <p>The decrease of -\$0.791 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners.</p> <p><b>FY 2017 Plans:</b> The JCTD program at DISA has been disestablished as a result of Agency efficiencies.</p> <p>The decrease of -\$2.524 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&amp;E PE 0302019K (62 FTES), and O&amp;M (31 FTEs). In addition, non-pay funding was realigned to RDT&amp;E PE 0302019K.</p>				
<p><b>Title:</b> Information Sharing (IS)</p> <p><b>FY 2016 Accomplishments:</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 -\$0.876 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners.</p> <p><b>FY 2017 Plans:</b> The JCTD program at DISA has been disestablished as a result of Agency efficiencies.</p>		3.177	0.000	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>The decrease of -\$3.177 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&amp;E PE 0302019K (62 FTES), and O&amp;M (31 FTES). In addition, non-pay funding was realigned to RDT&amp;E PE 0302019K.</p> <p><b>Title:</b> Network Infrastructure (NI)</p> <p><b>Description:</b> Network Infrastructure (NI)</p> <p><b>FY 2016 Accomplishments:</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 -\$0.344 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners.</p> <p><b>FY 2017 Plans:</b> The JCTD program at DISA has been disestablished as a result of Agency efficiencies. Disestablishes pay, benefits, travel and other program costs, including contracting support.</p> <p>The decrease of -\$1.316 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&amp;E PE 0302019K (62 FTES), and O&amp;M (31 FTES). In addition, non-pay funding was realigned to RDT&amp;E PE 0302019K.</p>		1.316	0.000	-
<p><b>Title:</b> Network Operations (NetOps)</p> <p><b>FY 2016 Accomplishments:</b> The decrease of -\$0.967 from FY 2015 to FY 2016 is due to the change in DoD policy where the JCTD process will now be used to satisfy seven OSD identified technology problem areas. Because of this shift, there is a reduction in the number of longer-term JCTDs (18-48 months) with the program moving towards rapid delivery of technical capabilities with Emerging Capability</p>		0.000	0.000	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Technology Demonstrations (ECTDs). ECTDs are shorter in duration (12-36 months) and provide faster delivery of capability to mission partners.  <b>FY 2017 Plans:</b> N/A			
<b>Title:</b> Program Management Support  <b>FY 2016 Accomplishments:</b> CTO will continue to provide core program management support and a variety of engineering, technical innovation, information services, information assurance, and integration engineering.  The decrease of -\$3.542 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.  <b>FY 2017 Plans:</b> The JCTD program at DISA has been disestablished as a result of Agency efficiencies.  The decrease of -\$11.733 from FY 2016 to FY 2017 is an Agency efficiency and results in the disestablishment of the JCTD program. As a result, civilian pay and FTEs were realigned to RDT&E PE 0302019K (62 FTES), and O&M (31 FTEs). In addition, non-pay funding was realigned to RDT&E PE 0302019K.	11.733	0.000	-
<b>Accomplishments/Planned Programs Subtotals</b>	18.750	0.000	-

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

N/A

**Remarks**

**D. Acquisition Strategy**

The program accomplishes its mission through a combination of strategies focused on operations, technical integration, program management, and financial tracking. Market research during the acquisition process includes a review of DISA contracts, other DoD contract vehicles, and other Government agency contracts which are advertised for Government-wide usage. This market research also includes consideration of small businesses including, minority/women owned (8A) businesses, Historically Black Colleges and Universities, mentor/protégé and other specialized contract vehicles and processes. It evaluates all contractors available from DISA sources for their ability to deliver the products specifically required for the unique program efforts. The program works collaboratively with vendors to obtain generic

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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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cost data for planning and analysis purposes. Past and current contract prices for similar work and other government-wide agency contracts provide additional sources of information. Quotes from multiple sources help provide averages for more realistic cost estimates. DISA makes a concerted effort to award many of its contracts to small businesses. Additionally, many of the DISA contracts are awarded with multiple option periods. These have the benefit of fixing labor costs over an extended period and minimizing the administrative costs associated with re-issuing short-term contracts. CTO reviews existing contract vehicles and the number of contracts to minimize administrative overhead. Instead of individual contracts for program management, business line improvement, asset management, and financial management, there is now one small business program services contract that provides services across DISA.

**E. Performance Metrics**

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

FY16 Actual: 3-5 potential ECTDs/ETs (evaluating about 8 projects which may or may not become an ECTD/ET)

FY17 Target: N/A

FY18 Target: N/A

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

FY16 Actual: 20 Additional Users - 5 each quarter

FY17 Target: N/A

FY18 Target: N/A

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 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 0303141K / <i>Global Combat Support System</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	244.911	13.674	7.600	2.576	-	2.576	2.534	1.657	1.724	1.915	Continuing	Continuing
CS01: <i>Global Combat Support System</i>	244.911	13.674	7.600	2.576	-	2.576	2.534	1.657	1.724	1.915	Continuing	Continuing

**Program MDAP/MAIS Code:** 483

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

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

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	14.294	7.600	7.600	-	7.600
Current President's Budget	13.674	7.600	2.576	-	2.576
Total Adjustments	-0.620	0.000	-5.024	-	-5.024
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.620	-	-5.024	-	-5.024

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 0303141K / <i>Global Combat Support System</i>	

**Change Summary Explanation**

The decrease of -\$5.024 in FY 2018 reduces Joint Logistics Common Operational Picture (LogCOP) support to the logisticians as they plan, execute, control, and assess in an increasingly complex global environment. Additionally, the decrease reduces the overall pace and scope of GCSS development efforts to meet Joint Staff logistics operational needs. Part of the overall decrease (-\$0.274) is attributed to the Service Requirements Review Board (SSRB) contract reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CS01: <i>Global Combat Support System</i>	244.911	13.674	7.600	2.576	-	2.576	2.534	1.657	1.724	1.915	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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Global Combat Support System-Joint	13.674	7.600	2.576
<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 2016 Accomplishments:</b> The focus in FY16 was to simplify the system architecture. This goal was accomplished with the successful transition to a virtualized environment resulting in a more efficient system with greater reliability, better through-put, and better performance. The Program Management Office met the functional requirements that were identified and prioritized by the Joint Staff J-4 (JS J-4) which included new widgets to improve the visibility of personnel, equipment, and supplies.			
The FY 2016 to FY 2017 decrease of - \$6.074 is the result of a reduction in the number of GCSS-J development efforts required to meet Joint Staff logistics operational needs while continuing to meet current functional priorities of the joint logistics community, as documented by Joint Staff requirements.			
<b>FY 2017 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016	FY 2017	FY 2018
<p>The GCSS-J PMO will continue to meet the JS J-4 approved and prioritized functional requirements to support the joint logistics community. The JS J-4, in collaboration with the Combatant Commands (CCMDs) approved the transition of GCSS-J to a SharePoint-based Logistics Common Operational Picture. The PMO will introduce SharePoint server within the GCSS-J enclave to provide an Enterprise SharePoint Solution which integrates the automated data services and visualizations provided by GCSS-J and supports site specific user defined operational pictures (UDOP). This will promote standardization across CCMDs and allow CCMDs to use their primary SharePoint portal or alternative work space to visualize and share data with other CCMDs. Additionally, the functional sponsor approved the development of widgets to support the Operational Contract Support (OCS) community allowing visibility of contractor management, awarded procurements, and emerging requirements.</p> <p><b>FY 2018 Plans:</b> The GCSS-J PMO will continue to meet the JS J-4 approved and prioritized functional requirements to support the joint logistics community providing 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.</p> <p>The decrease of -\$5.024 from 2017 to FY 2018 reduces Joint Logistics Common Operational Picture (LogCOP) support to the logisticians as they plan, execute, control, and assess in an increasingly complex global environment. Additionally, the decrease reduces the overall pace and scope of GCSS development efforts to meet Joint Staff logistics operational needs. Part of the overall decrease (-\$0.274) is attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	13.674	7.600	2.576

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/PE 0303141K: O&M, DW	13.735	17.668	17.337	-	17.337	17.383	17.375	17.505	17.720	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The GCSS-J Program Management Office (PMO) uses various contract types, employs large and small contractors, and is focused on achieving agency socio-economic goals and incorporating DoD acquisition reform initiatives in purchasing. The PMO maximizes the use of performance-based contracts and requires contractors to establish and manage specific earned value data to mitigate risk and monitor deviations from cost, schedule, and performance objectives. The PMO evaluates performance by conducting thorough Post-award Contract Reviews, monthly Contract Performance Reviews, and bi-monthly In-Process Reviews.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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<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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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 2016 (Actual) The KPPs, found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Data was gathered from the First Look Site during development and from surveys after the capability was deployed. FY16 Target: 95%. Metric was met.

FY 2017 (Estimate) The KPPs, found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Data will be gathered from the First Look Site during development and from surveys once the capability is deployed. FY17 Target: 95%

FY 2018 (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. FY18 Target: 95%

2. Customer Results and Customer Satisfaction

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

FY 2017 (Estimate) Help Desk KPIs define the baseline measure to evaluate customer satisfaction and provide a service desk assessment; KPI threshold is 80%. Data will be gathered from the strategic server site, DECC-Montgomery, and from user surveys. FY17 Target: 80%

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2018 (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. FY18 Target: 80%</p> <p>3. Processes and Activities and Program Monitoring</p> <p>FY 2016 (Actual) Baseline Measure – Increment 8, v8.1 was deployed in 2nd Quarter 2016. Metric was met with the fielding of Increment 8, v8.1 on time.</p> <p>FY 2017 (Estimate) Baseline Measure – To deploy Increment 8, v8.2 in 3rd Quarter 2017.</p> <p>FY 2018 (Estimate) Baseline Measure – To deploy Increment 8, v8.3 in 2nd Quarter 2018.</p> <p>4. Technology and System Development</p> <p>FY 2016 (Actual) Baseline Measure was the ability to provide current and accurate information from the ADS at a 95% effectiveness level. System Administrators at the Defense Enterprise Computing Centers gathered data from system logs to validate effectiveness. FY16 Target: 95%. Metric was met.</p> <p>FY 2017 (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. FY17 Target: 95%</p> <p>FY 2018 (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. FY18 Target: 95%</p>		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Defense Information Systems Agency</b>												<b>Date: May 2017</b>		
<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>Product Development (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 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>			
Product Development 1	C/T&M	Enterworks : Sterling, VA	8.745	-		0.000		-		-		-	0.000	8.745	8.745
Product Development 2	C/T&M	WFI (DSI) : Manassas, VA	4.125	-		0.000		-		-		-	0.000	4.125	4.125
Product Development 3	C/CPAF	NGIT : Herndon, VA	127.849	-		-		-		-		-	0.000	127.849	127.849
Product Development 4	C/T&M	SAIC : Falls Church, VA	17.061	-		0.000		-		-		-	0.000	17.061	17.061
Product Development 5	C/FFP	NGIT, : Reston, VA	21.669	5.382	Mar 2016	0.000		-		-		-	0.000	27.051	27.051
Product Development 6	SS/FFP	UNISYS, : Falls Church, VA	16.472	-		0.000		-		-		-	0.000	16.472	16.472
Product Development 7	MIPR	FGM, : Reston, VA	5.482	-		0.000		-		-		-	0.000	5.482	5.482
Product Development 8	SS/FFP	Merlin, : McLean, VA	1.664	-		0.000		-		-		-	0.000	1.664	1.664
Product Development 9	MIPR	JDTC, : Ft. Eustis, VA	2.423	-		0.000		-		-		-	0.000	2.423	2.423
Product Development 10	MIPR	CSC, : Norfolk, VA	0.300	-		0.000		-		-		-	0.000	0.300	0.300
Product Development 11	C/FFP	Pragmatics : Reston, VA	-	6.730	May 2016	6.570	May 2017	1.546	May 2018	-		1.546	Continuing	Continuing	Continuing
<b>Subtotal</b>			205.790	12.112		6.570		1.546		-		1.546	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 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 1	C/CPFF	COMTEK, : Sterling, VA	3.902	-		0.000		-		-		-	0.000	3.902	3.902
Test & Evaluation 2	MIPR	SSO, : Montgomery	0.500	-		0.000		-		-		-	0.000	0.500	0.500
Test & Evaluation 3	MIPR	DIA : WDC	3.325	0.460	Aug 2016	-		-		-		-	0.000	3.785	3.785
Test & Evaluation 4	C/CPFF	Pragmatics : Pragmatics	1.684	-		0.000		-		-		-	0.000	1.684	1.684
Test & Evaluation 5	C/CPFF	AAC, Inc., : Vienna, VA	2.790	-		0.000		-		-		-	0.000	2.790	2.790

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 6	MIPR	JITC, : Ft. Huachuca, AZ	6.232	0.800	Oct 2015	0.600	Oct 2016	0.600	Oct 2017	-		0.600	Continuing	Continuing	Continuing
Test & Evaluation 7	MIPR	STRATCOM (DAA) : Bolling AFB, DC	0.622	0.170	Sep 2016	0.170	Jul 2016	0.170	Sep 2018	-		0.170	Continuing	Continuing	Continuing
Test & Evaluation 8	MIPR	DISA (TE LAB Support) : Fort Meade, MD	1.262	0.102	Oct 2015	0.100	Oct 2016	0.100	Oct 2017	-		0.100	Continuing	Continuing	Continuing
Test & Evaluation 9	MIPR	DISA FSO Security Testing Support : Fort Meade, MD	-	0.030	Aug 2016	0.160	Oct 2016	0.160	Oct 2017	-		0.160	Continuing	Continuing	Continuing
<b>Subtotal</b>			20.317	1.562		1.030		1.030		-		1.030	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	-		-		-		-		-	0.000	16.934	16.934
Management Services 2	SS/CPFF	UMD, : Eastern Shore, MD	1.021	-		-		-		-		-	0.000	1.021	1.021
Management Services 3	MIPR	IDA, : Alexandria, VA	0.749	-		-		-		-		-	0.000	0.749	0.749
Management Services 4	MIPR	JFCOM, : Norfolk, Va	0.100	-		0.000		-		-		-	0.000	0.100	0.100
<b>Subtotal</b>			18.804	-		0.000		-		-		-	0.000	18.804	18.804

	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		244.911	13.674	7.600	2.576	2.576	-	-	-

**Remarks**



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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	2	2014	2	2014
System Development & Testing - Increment 8	2	2014	4	2019
Full Deployment Decision - Increment 8	4	2019	4	2019
Acquisition Events - Milestone B/C: Increment 9 - MS B	1	2020	1	2020
Acquisition Events - Milestone B/C: Increment 9 - MS C	3	2020	3	2020
System Development & Testing - Increment 9	3	2020	4	2022

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0605502K / <i>Small Business Innovative Research</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	0.000	4.364	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
SB-01: <i>Small Business Innovative Research</i>	0.000	4.364	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

In accordance with Public Law No: 112-81 (National Defense Authorization Act) and Small Business Technology Transfer Program Reauthorization Act, the DISA Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are designed to provide small, high-tech businesses and academic institutions the opportunity to propose radical, innovative, high-risk approaches to address existing and emerging national security threats; thereby supporting DISA's overall strategy to enable fundamental discoveries and technological breakthroughs that provide new military capabilities.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	4.364	0.000	0.000	-	0.000
Total Adjustments	4.364	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	4.364	-			

**Change Summary Explanation**

FY 2016: Increase reflects the SBIR/STTR transfer.  
 FY 2017: N/A  
 FY 2018: N/A

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605502K / <i>Small Business Innovative Research</i>	<b>Project (Number/Name)</b> SB-01 / <i>Small Business Innovative Research</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
SB-01: <i>Small Business Innovative Research</i>	0.000	4.364	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

In accordance with Public Law No: 112-81 (National Defense Authorization Act) and Small Business Technology Transfer Program Reauthorization Act, the DISA Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are designed to provide small, high-tech businesses and academic institutions the opportunity to propose radical, innovative, high-risk approaches to address existing and emerging national security threats; thereby supporting DISA's overall strategy to enable fundamental discoveries and technological breakthroughs that provide new military capabilities.

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

	FY 2016	FY 2017	FY 2018
<b>Title:</b> Small Business Innovation Research	4.364	-	-
<b>Description:</b> The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are designed to provide small, high-tech businesses and academic institutions the opportunity to propose radical, innovative, high-risk approaches to address existing and emerging national security threats; thereby supporting DISA's overall strategy to enable fundamental discoveries and technological breakthroughs that provide new military capabilities.			
<b>FY 2016 Accomplishments:</b> - The DISA SBIR and STTR were executed within OSD guidelines.			
<b>Accomplishments/Planned Programs Subtotals</b>	4.364	-	-

**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: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0305172K / <i>Combined Advanced Applications</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	12.200	16.998	-	16.998	14.500	5.500	5.500	5.500	Continuing	Continuing
CA1: <i>Combined Advanced Applications</i>	0.000	0.000	12.200	16.998	-	16.998	14.500	5.500	5.500	5.500	Continuing	Continuing

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

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

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

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	0.000	15.336	13.866	-	13.866
Current President's Budget	0.000	12.200	16.998	-	16.998
Total Adjustments	0.000	-3.136	3.132	-	3.132
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-3.136	3.132	-	3.132

**Change Summary Explanation**

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

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<b>Exhibit R-2A, RDT&amp;E Project Justification: FY 2018 Defense Information Systems Agency</b>										<b>Date: May 2017</b>		
<b>Appropriation/Budget Activity</b> 0400 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0305172K / <i>Combined Advanced Applications</i>				<b>Project (Number/Name)</b> CA1 / <i>Combined Advanced Applications</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CA1: <i>Combined Advanced Applications</i>	0.000	0.000	12.200	16.998	-	16.998	14.500	5.500	5.500	5.500	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

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

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Combined Advanced Applications	-	12.200	16.998
<b>FY 2017 Plans:</b> Classified.			
<b>FY 2018 Plans:</b> Classified.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	12.200	16.998

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

N/A

**Remarks**

**D. Acquisition Strategy**

Classified

**E. Performance Metrics**

Classified

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0903235K / <i>Joint Service Provider</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	5.113	-	5.113	5.148	5.137	5.224	5.311	Continuing	Continuing
1: <i>JSP</i>	-	0.000	0.000	5.113	-	5.113	5.148	5.137	5.224	5.311	Continuing	Continuing

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

The Joint Service Provider (JSP) provides Information Technology infrastructure and office automation systems, components, supporting software, and IT support services for the Office of the Secretary of Defense (OSD), Joint Staff, WHS, Pentagon Force Protection Agency (PFPA), Consolidated Adjudication Facility (CAF), and other WHS-supported users and communities supported within the Pentagon Reservation and other areas in the National Capitol Region. The funding levels represent transfers from the legacy organizations, WHS-EITSD and Joint Staff support their ongoing consolidated mission. RDT&E provides for the test, pilot, and development of new integrated business tools to enhance the JSP business processes and improve the delivery of IT services and capabilities to JASN.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	5.113	-	5.113
Total Adjustments	0.000	0.000	5.113	-	5.113
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Functional Transfer	-	-	5.113	-	5.113

**Change Summary Explanation**

The increase of +\$5.113 in FY 2018 is due to the functional transfer of JSP to DISA.

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0903235K / Joint Service Provider				Project (Number/Name) 1 / JSP			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
1: JSP	-	0.000	0.000	5.113	-	5.113	5.148	5.137	5.224	5.311	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Joint Service Provider (JSP) provides mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.

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

	FY 2016	FY 2017	FY 2018
<p><b>Title:</b> Pentagon/NCR Core Enterprise Services</p> <p><b>Description:</b> Provides development, test, and pre-deployment for JSP-supported services to include network transport, network security, computer network defense, intrusion detection, Pentagon Installation Processing Node (IPN), and other components of the Pentagon's core network infrastructure.</p> <p><b>FY 2018 Plans:</b> Develop, test, and pre-deploy JSP-supported services to include network transport, network security, computer network defense, intrusion detection, Pentagon Installation Processing Node (IPN), and other components of the Pentagon's core network infrastructure.</p> <p>The increase of +\$3.871 from FY 2017 to FY 2018 is due to the functional transfer of JSP to DISA.</p>	-	-	3.871
<p><b>Title:</b> SECDEF Communications</p> <p><b>Description:</b> Provides mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.</p> <p><b>FY 2018 Plans:</b> To develop better mobile classified computing and communications platforms for all customers to have secure computing at residences and temporary and mobile locations around the world.</p> <p>The increase of +\$0.101 from FY 2017 to FY 2018 is due to the functional transfer of JSP to DISA.</p>	-	-	0.101
<p><b>Title:</b> Business Solutions - Enterprise Services</p> <p><b>Description:</b> Provides development, testing, piloting, and pre-deployment support for integrated business tools that will enhance JSP-supported enterprise mission application environment.</p>	-	-	1.141

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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<b>Appropriation/Budget Activity</b> 0400 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0903235K / <i>Joint Service Provider</i>	<b>Project (Number/Name)</b> 1 / <i>JSP</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2016	FY 2017	FY 2018
<p><b><i>FY 2018 Plans:</i></b> Develop and test tools that will improve the delivery of IT services and capabilities for all JSP users. JSP will continue to expand the engineering, testing and development networks for NIPR and SIPR.</p> <p>The increase of +\$1.141 from FY 2017 to FY 2018 is due to the functional transfer of JSP to DISA.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	5.113

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Pentagon/NCR Core Enterprise Services:

Number of NCR Core Infrastructure development, test, and pre-deployment tests

FY16 Target: N/A

FY17 Target: N/A

FY18 Target: 4 Planned/4 Required

SECDEF Communications:

Number of System upgrades

FY 2016 Target: N/A

FY 2017 Target: N/A

FY 2018 Target: 2 Planned/2 Required

Business Solutions - Enterprise Services:

Number of Operational Test Events for the NIPR and SIPR

FY 2016 Target: N/A

FY 2017 Target: N/A

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 6	PE 0903235K / <i>Joint Service Provider</i>	1 / <i>JSP</i>

FY 2018 Target: 2 Planned/2 Required

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0208045K / C4I Interoperability
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	631.107	63.341	57.501	59.490	-	59.490	60.649	61.267	62.551	63.838	Continuing	Continuing
T30: MRTFB Test and Evaluation	154.161	6.074	7.624	7.732	-	7.732	7.884	7.893	8.056	8.056	Continuing	Continuing
T40: Major Range Test Facility Base Operations	476.946	57.267	49.877	51.758	-	51.758	52.765	53.374	54.495	55.782	Continuing	Continuing

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

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

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	63.341	57.501	59.657	-	59.657
Current President's Budget	63.341	57.501	59.490	-	59.490
Total Adjustments	0.000	0.000	-0.167	-	-0.167
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Reprogramming	-	-	-0.167	-	-0.167

**Change Summary Explanation**

The decrease of -\$0.167 in FY 2018 is a reduction to the automation and virtualization capabilities of DISA IT testing and evaluation services.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T30: MRTFB Test and Evaluation	154.161	6.074	7.624	7.732	-	7.732	7.884	7.893	8.056	8.056	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Defense Information Systems Agency (DISA), through the Joint Interoperability Test Command (JITC), manages the Department's Interoperability Test, Evaluation, and Certification process that is structured to provide meaningful and independent test results in order to increase stakeholder confidence. The objectives, of the Test and Evaluation (T&E) activities, are to validate that DISA's (and the Department's, where appropriate) deliverables have met operational requirements. The T&E activities target evaluation strategies in the design, development, operational, integration and/or sustainment aspects of every program requiring support. DISA's T&E efforts span a variety of test categories supporting DISA's delivery of Department-wide enterprise solutions as well as Service, Agency, and mission partner developmental, operational, Information Assurance, and interoperability testing, validation and certification efforts. These efforts are focused on T&E for Information Technology (IT) that includes the Joint Information Environment (JIE), Cyber, Cloud services, and Mobility.

As the Department of Defense (DoD) Joint Interoperability Certification Authority, JITC annually:

- Issues hundreds of interoperability testing and certification related products.
- Manages the scheduling and executes multiple annual distributed Joint Tactical Data Link hardware in the loop interoperability test events. These events are designed to evaluate, certify and re-certify Service/Agency Tactical Data systems.
- Reviews hundreds of Joint Capabilities Integration and Development System documents, interoperability support plans and Legacy Waiver requests on behalf of the DoD Chief Information Officer (CIO) and the Joint Staff.
- Serves as executive agent to DoD Interoperability Steering Group, in support of the DoD CIO, and uses this forum to coordinate policy, adjudicate issues, and to process Interim Certificates to Operate.
- Ensures interoperability test and certification standard practices and procedures are in accordance with DoD policy, and reviews and issues over 600 Joint interoperability certifications annually for DoD's Information Technology and National Security Systems (IT/NSS).
- Manages the scheduling and prioritization of multiple annual distributed Joint Tactical Data Link simulated test events using real components (hardware in the loop interoperability test events) designed to evaluate, certify and re-certify Service/Agency Tactical systems.

JITC provides interoperability test support to Joint, Coalition and Allied operations in theater by providing Interoperability test support within the area of responsibility and supports exercises intended to evaluate Joint, Coalition and Allied operations in, or planning to deploy to theater by:

- Providing on-demand rapid response contingency support to Regional Combatant Commands (COCOMs) as required, and conducting assessments of interoperability exercises.
- Conducting assessments during one of the largest interoperability exercises (the Endeavors).
- Broadening its support to the Joint Staff and functional COCOMs with a multitude of interoperability assessment services.
- Maintaining a 24x7 Warfighter Command, Control, Communications, Computers and Intelligence (C4I) Interoperability Hotline that connects warfighters to subject matter experts to resolve IT interoperability challenges.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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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- 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 2016	FY 2017	FY 2018
<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 2016 Accomplishments:</b> Focused on new T&amp;E capabilities designed to add flexibility and enhance collaboration with partners to improve T&amp;E services. Leveraged cloud and virtual technologies to provide automation and services that are more agile than physical test environments.</p>	5.296	6.704	6.812

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
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<p>Continued to capitalize on big data analytics and tools to conduct data analysis in the operational environment allowing for continuous assessment of overall performance, providing a means to define trends, focus test events, as well as reduce risk through continuous monitoring and evaluation.</p> <p>The decrease of -\$3.524 from FY 2015 to FY 2016 is due to realignment between T30 MRTFB Test &amp; Evaluation and T40 Major Range Test Facility Base Operations to improve the expansion of automation and virtualization capabilities of DISA IT testing and evaluation services.</p> <p><b>FY 2017 Plans:</b> Continue to enhance current T&amp;E capabilities by employing automation technologies making these capabilities accessible to customers via the cloud in a self-service mode. Employ new technology and methodology to conduct data analysis in the operational environment promoting continuous assessment of capability performance resulting in identification/analysis of trends impacting ability to focus test events and reduce risk.</p> <p>The decrease of -\$0.392 from FY 2016 to FY 2017 is due to the automation of T&amp;E services through the use of virtualization and cloud technologies thus reducing contractor support for these services and the reduction of contractor support for DICE Tactical Edge Testbed and methodology development completely phased out at the end of FY 2016.</p> <p><b>FY 2018 Plans:</b> Increase customer accessibility through enhanced T&amp;E capabilities by employing automation technologies via the cloud in a self-service mode. Continue to reduce risk and identify/analyze trends by employing new technology and methodology to conduct data analysis in the operational environment.</p> <p>The increase of +\$0.108 from FY 2017 to FY 2018 will enable development of new methodologies for conducting Interoperability assessments.</p>			
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<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> <p><b>FY 2016 Accomplishments:</b> Improved OT&amp;E processes, procedures, and tools to evolve operational testing capabilities through the use of virtualization to emulate users and devices to better evaluate performance. Provided OT&amp;E for JIE to ensure capabilities are effective, suitable, interoperable, and secure. Provided continuing OT&amp;E support to COCOMs, Military Services, and Defense Agencies, as requested.</p>	0.658	0.800	0.800
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**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
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The decrease of -\$0.125 from FY 2015 to FY 2016 is due to realignment between T30 MRTFB Test & Evaluation and T40 Major Range Test Facility Base Operations to improve the expansion of automation and virtualization capabilities of DISA IT testing and evaluation services.

**FY 2017 Plans:**  
Will continue to enhance OT&E processes, procedures, and tools through the use of automation and virtualization to improve operational testing capabilities for evolving requirements to better evaluate performance. Will provide OT&E support to COCOMs, Military Services, and Defense Agencies as requested.

The decrease of -\$0.056 from FY 2016 to FY 2017 is due to transition of OT&E support for JIE contract reductions for delivery of testing tools.

**FY 2018 Plans:**  
Will continue to enhance OT&E processes, procedures, and tools by increasing automation and utilizing virtualization as needed, to better evaluate performance and to improve operational testing capabilities for evolving requirements. Will continue to provide OT&E support to COCOMs, Military Services, and Defense Agencies as requested.

<b>Title:</b> Support to Warfighter	0.120	0.120	0.120
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**Description:** Provides pre/post-production evaluations including: collecting relevant data during a continuous monitoring effort, and providing on-the-spot evaluations of problem areas and viable mission-oriented solutions to warfighting COCOMs during exercises and contingency operations.

**FY 2016 Accomplishments:**  
Focused support primarily on the Asia Pacific region, consistent with the National Defense Strategy. Sustained a Warfighter Support capability to respond to critical fielded system issues only.

The decrease of -\$0.142 from FY 2015 to FY 2016 is due to reduction or elimination of support consistent with the National Defense Strategy.

**FY 2017 Plans:**  
Focused support primarily on the Asia Pacific region will continue, consistent with the National Defense Strategy. Will sustain a Warfighter Support capability sufficient to respond to critical fielded system issues only.

**FY 2018 Plans:**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Support will continue to be focused primarily on the Asia Pacific region, consistent with the National Defense Strategy. Will sustain a Warfighter Support capability sufficient to respond to critical fielded system issues only.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.074	7.624	7.732

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

N/A

**Remarks**

**D. Acquisition Strategy**

T&E Mission Support Services (MSS) cost plus and firm fixed price contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions. The T&E MSS contract provides for expansion and contraction of staff years as workload dictates.

**E. Performance Metrics**

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

1. Metric: Provide operational test plans prior to the start date of a test for all customers where JITC is the OTA.

Measure/Goal: 90%

FY16 Target: 95% Actual: 88%

FY17 Target: 95%

FY18 Target: 95%

2. Metric: Provide operational test reports no later than 60 days after the completion of a test event when JITC is the responsible OTA.

Measure/Goal: 90%

FY16 Target: 95% Actual: 66%

FY17 Target: 95%

FY18 Target: 95%

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

Measure/Goal: 95%

FY16 Target: 95% Actual: 96%

**UNCLASSIFIED**

**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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>

FY17 Target: 95%  
FY18 Target: 95%

4. JITC surveys customers for each product that is delivered (POA&Ms, test Plans, Test Reports, etc.) in terms of cost, schedule, and overall performance on a 1-5 scale with 5 being the highest rating.

Measure/Goal: 4.5  
FY16 Target: 4.5 Actual: 4.4  
FY17 Target: 4.5  
FY18 Target: 4.5

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T40: Major Range Test Facility Base Operations	476.946	57.267	49.877	51.758	-	51.758	52.765	53.374	54.495	55.782	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

As the only non-Service activity of the Department of Defense (DoD) Major Range and Test Facility Base (MRTFB), Defense Information Systems Agency (DISA) provides the only dedicated Information Technology (IT) environment investing in a single end-to-end infrastructure for testing the Enterprise Edge to the Tactical Edge. As an MRTFB, Joint Interoperability Test Command (JITC) provides tested IT infrastructure products to the DoD, Federal/non-Federal Government, Commercial vendors, and Allied partners.

The DISA MRTFB infrastructure:

- Encompasses two geographic locations (Ft. Huachuca, AZ; Indian Head, MD; Ft. Meade, MD).
- 116K square feet of raised floor space comprised of multiple test environments and test networks supporting over a 100 programs on an annual basis.
- Complies with multiple levels of security and is scaled to support approximately 1,000 annual testing events to evaluate the DoD's converged information environment, Cyber, Cloud services, Mobility, and National Security Systems (NSS).
- Encompasses a significant portfolio of reference implementations, test tools, and supporting IT systems to aid both test execution and data collection/analysis.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> MRTFB Improvements and Operations	57.267	49.877	51.758
<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 2016 Accomplishments:</b> As an MRTFB, JITC operates the DISA IT test infrastructure. Standardization of testbed infrastructure is ongoing and leveraging of cloud technologies provides seamless distributed testing services and efficient use of testing equipment and resources across			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>the Agency and the Department. Expanded use of automation, virtualization, and access to big data will enable the reduction of the MRTFB IT footprint. Maintain technical workforce skills, support base operations, communications, automation, operating expenses at each location.</p> <p>The increase of +\$4.230 from FY 2015 to FY 2016 will continue efforts to improve the expansion of automation and virtualization capabilities of DISA IT testing and evaluation services.</p> <p><b>FY 2017 Plans:</b> As an MRTFB, JITC operates the DISA IT Test infrastructure which consists of a standardized test bed at Fort George G. Meade, MD and Fort Huachuca, AZ. JITC will continue to expand the use of cloud technologies provide seamless distributed testing services and efficient use of testing equipment and resources for use across the Agency and the Department. JITC will maintain technical workforce, support base operations, communications, and operating expenses at each location.</p> <p>The decrease of -\$5.392 from FY 2016 to FY 2017 is due to implementation of new cyber and enterprise test methods and automated tools and use of virtualization and cloud technologies, enabling JITC to reduce the IT foot print and gain operational efficiencies.</p> <p><b>FY 2018 Plans:</b> As an MRTFB, JITC will continue to operate the DISA IT Test infrastructure standardized test bed at Fort George G. Meade, MD and Fort Huachuca, AZ. JITC will continue to support the Agency and the Department by expanding the use of cloud technologies to provide seamless distributed testing services and efficient use of testing equipment and resources. JITC will continue to maintain technical workforce, support base operations, communications, and operating expenses at each location.</p> <p>The increase of +\$1.881 from FY 2017 to FY 2018 will adapt additional cloud technologies through rapid re-configurations resulting in the development of a single DoDIN Lab Test-bed. his increase is partially offset by a decrease of -\$0.822 attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	57.267	49.877	51.758

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

**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.

**E. Performance Metrics**

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

5. Provide configuration changes to the MRTFB infrastructure NLT 5 days after formal customer service request received.

Measure/Goal: 90%

FY16 Target: 95% Actual: Data Capture not available for newly established tracking capability

FY17 Target: 95%

FY18 Target: 95%

6. Complete new configuration additions (equipment installs) NLT 14 days after receipt of customer requirements form.

Measure/Goal: 90%

FY16 Target: 90% Actual: Data Capture not available for newly established tracking capability

FY17 Target: 95%

FY18 Target: 95%

7. Availability of enterprise service test capabilities T&E enclave.

Measure/Goal: 95%

FY16 Target: 90% Actual: 100%

FY17 Target: 95%

FY18 Target: 95%

8. Availability of the Tactical Data Link Standard Conformance test tool to various DoD platforms (e.g., weapons systems).

Measure/Goal: 95%

FY16 Target: 95% Estimated Actual: Data Capture not available for newly established tracking capability

FY17 Target: 95%

FY18 Target: 95%



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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 1	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	75.279	-		-		-		-		-	0.000	75.279	75.279
Test and Evaluation 2	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	99.188	-		-		-		-		-	0.000	99.188	99.188
Test and Evaluation 3	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	49.746	-		-		-		-		-	0.000	49.746	49.746
Test and Evaluation 4	C/Various	VARIOUS - pending development of query : VARIOUS	54.481	-		-		-		-		-	Continuing	Continuing	Continuing
Test and Evaluation 5	Option/CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	-	0.218	Oct 2015	0.192	Oct 2016	0.207	Oct 2017	-		0.207	Continuing	Continuing	Continuing
Test and Evaluation 6	Option/CPFF	AMERICAN SYSTEMS COPR : Various	-	0.551	Oct 2015	0.485	Oct 2016	0.523	Oct 2017	-		0.523	Continuing	Continuing	Continuing
Test and Evaluation 7	Option/CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	-	3.502	Oct 2015	3.081	Oct 2016	3.320	Oct 2017	-		3.320	Continuing	Continuing	Continuing
Test and Evaluation 8	Option/CPFF	OBERON ASSOCIATES : Various	-	5.297	Oct 2015	4.660	Oct 2016	5.023	Oct 2017	-		5.023	Continuing	Continuing	Continuing
Test and Evaluation 9	Option/CPFF	TASC, INC. : Various	-	1.397	Oct 2015	1.229	Oct 2016	1.325	Oct 2017	-		1.325	Continuing	Continuing	Continuing
Test and Evaluation 10	Option/CPFF	BEACON GROUP SW, INC : Various	-	8.614	Oct 2015	7.579	Oct 2016	7.450	Oct 2017	-		7.450	Continuing	Continuing	Continuing
Test and Evaluation 11	Option/CPFF	Multiple : Various	-	8.696	Oct 2015	8.032	Oct 2016	8.658	Oct 2017	-		8.658	Continuing	Continuing	Continuing
<b>Subtotal</b>			278.694	28.275		25.258		26.506		-		26.506	-	-	-



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>							<b>Date: May 2017</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			

FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
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																												

FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Develop and Implement Interoperability test systems to support warfighters																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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	2015	4	2022

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	78.860	1.735	5.935	6.104	-	6.104	5.413	5.423	5.544	5.683	Continuing	Continuing
NND: <i>Multinational Information sharing</i>	78.860	1.735	5.935	6.104	-	6.104	5.413	5.423	5.544	5.683	Continuing	Continuing

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

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

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

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

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	1.845	5.935	6.104	-	6.104
Current President's Budget	1.735	5.935	6.104	-	6.104
Total Adjustments	-0.110	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.110	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

No change explanation needed.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NND: <i>Multinational Information sharing</i>	78.860	1.735	5.935	6.104	-	6.104	5.413	5.423	5.544	5.683	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

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

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

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

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

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

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Multinational Information Sharing	1.735	5.935	6.104
<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. The MNIS			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>Program also initiated a capability to support enhancements for the UISS-All Partners Access (APAN). UISS-APAN migrated existing systems supporting coalition sharing to an enterprise solution hosted on a DISA Defense Enterprise Computing Center. UISS-APAN capability will satisfy COCOM needs for tools and technology to support collaboration with non-traditional partners for humanitarian missions.</p> <p><b>FY 2016 Accomplishments:</b>            CENTRIXS CMNT: Completed CMNT transport integration and testing which improves and provides more effective and faster classified information sharing across the enterprise. Performed testing and support activities for the first CENTRIXS virtualized node location to evolve CENTRIXS to the Mission Partner Environment - Information Systems (MPE-IS) to be more responsive to COCOM missions to receive services within days vice weeks.</p> <p>Pegasus: Performed testing and integration activities to implement new Pegasus Five Eyes (FVEY) nations Sharepoint capability.</p> <p>CFBLNet: Provided integration and testing services to support Coalition Verification and Validation Environment (CV2E) enclave and support Coalition and NATO testing initiatives for Enterprise Challenge 2016 (EC16) among other exercises.</p> <p>UISS-APAN: Developed network system architecture designs and integration testing for commercial cloud services transition from legacy hosting platform.</p> <p>The decrease of -\$2.086 from FY 2015 to FY 2016 is attributed to decreased testing activities; research, engineering, and planning support for classified networks that include CENTRIXS, Pegasus, and CFBLNet coalition environments.</p> <p><b>FY 2017 Plans:</b>            CENTRIXS CMNT: Continue leveraging technology refresh activities for integration of CENTRIXS environments to include MPE-IS and standardize coalition environments to support hosting more COIs to gain efficiencies in infrastructure consolidation and rapid mission response time. MPE-IS testing and integration activities will support CENTRIXS core services for Episodic and Enduring MPE Capabilities for COCOMs.</p> <p>Pegasus: Plan to perform testing and integration activities for MPE FVEY Nations capabilities to support one-time and on-going capabilities for FVEY Nations (AUS/CAN/NZL/UK/USA).</p> <p>CFBLNet: Plan to perform testing and integration activities for Commercial Solutions for Classified (CSfC) to provide more efficient classified communications for coalition networks. Plan to provide integration and testing services to expand CFBLNet as a Service to support MPE virtualization and Coalition Test Bed Environments.</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>UISS-APAN: Plan to perform network system architecture integration and testing for the Unclassified Mission Partner Environment (MPE) Gateway and cloud efforts to support Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS).</p> <p>The increase of +\$4.090 from FY 2016 to FY 2017 provides an increase in testing and integration activities for MPE Episodic and Enduring capabilities to implement virtualized technologies for Classified COIs and Unclassified MPE Gateway integration and testing.</p> <p><b>FY 2018 Plans:</b> CENTRIXS CMNT: Continue leveraging technology refresh activities for integration of legacy CENTRIXS environments to gain efficiencies in virtualization consolidation for storage and services to reduce sustainment costs. Plan for integration and testing of additional core services to mission partners.</p> <p>Pegasus: Plan to perform testing and integration activities for Coalition Network Operations Center (CNOC) and National-level Network Operations Center (NNOC) FVEY (AUS/CAN/NZL/UK/USA) Nations capabilities.</p> <p>CFBLNet: Plan to perform testing and integration activities for technical refresh of Wide Area Network (WAN) infrastructure to support Research and Development, Training, Trials &amp; Assessment (RDTT&amp;A) initiatives on a recurring annual basis. Support testing and integration for virtualized infrastructure for Cross Domain Enterprise Services.</p> <p>UISS-APAN: Plan to perform cloud platform integration and testing for the Unclassified information sharing capabilities supporting Humanitarian Assistance &amp; Disaster Relief (HA/DR) efforts.</p> <p>The increase of +\$0.169 from FY 2017 to FY 2018 provides an increase in testing and integration activities for MPE Episodic and Enduring capabilities to implement virtualized technologies for Classified COIs.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	1.735	5.935	6.104

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/0301144K: <i>O&amp;M, DW</i>	50.352	47.629	46.665	-	46.665	46.749	47.227	48.172	48.357	Continuing	Continuing
• Proc, DW/0301144K: <i>Proc, DW</i>	0.596	0.623	0.708	-	0.708	1.003	1.003	1.023	1.049	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											

**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**

Measure:

-Functional and/or Security Test & Evaluation test cases.

Performance Metric:

-System will provide for 99.99% data integrity for authorized users sharing information cross COI. FY14 (Actual): Met

FY16 (Estimate): N/A

FY17 (Estimate): N/A

-Maintain 99.99% confidentiality for users, by Nation between COI's. FY14 (Actual): Met

FY16 (Estimate): N/A

FY17 (Estimate): N/A

-Direct traffic with 99.99% accuracy for chat, email, VOIP, file transfer, data storage and web service. FY14 (Actual): Met

FY16 (Estimate): N/A

FY17 (Estimate): N/A

Methodology:

-Assessment Plan

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

-Conduct selected ST&E test cases

Measure:

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>-Security Performance Metric:</p> <p>-Deny 98.5% of unauthorized user attempts FY14 (Actual): Met FY16 (Estimate): N/A FY17 (Estimate): N/A</p> <p>Methodology: -Assessment Plan -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 FY16 (Estimate): N/A FY17 (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) FY16 (Estimate): Met FY17 (Estimate): Expected to Meet FY18 Target: 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>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

Performance Metric:

-Annual number of CFBLNet Exercises hosted  $\geq$  2 Exercises Hosted (Empire Challenge & CWIX)

FY16 (Estimate): Met

FY17 (Estimate): Expected to Meet

FY18 Target: Expected to Meet

-Annual number of Test Bed Exercise  $\geq$  16 Test Events Hosted FY16 (Estimate): Met

FY16 (Estimate): Met

FY17 (Estimate): Expected to Meet

FY18 Target: Expected to Meet

Methodology:

-Number of exercises hosted per Fiscal Year

Measure:

Cloud integration, Development, Integration, Testing (Unclassified)

Performance Metric:

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

FY16 (Estimate): Met

FY17 (Estimate): Expected to Meet

FY18 Target: Expected to Meet

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0302016K / National Military Command System-Wide Support
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	6.315	0.938	0.575	1.863	-	1.863	1.849	1.823	1.855	1.866	Continuing	Continuing
S32: NMCS Command Center Engineering	6.315	0.938	0.575	1.863	-	1.863	1.849	1.823	1.855	1.866	Continuing	Continuing

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

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

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.963	0.575	1.155	-	1.155
Current President's Budget	0.938	0.575	1.863	-	1.863
Total Adjustments	-0.025	0.000	0.708	-	0.708
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.025	-			
• SBIR/STTR Transfer	-	-			
• Other adjustments	-	-	0.708	-	0.708

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>	

**Change Summary Explanation**

The increase of +\$0.708 in FY 2018 is due to application of the National Leadership Command Capability (NLCC) Configuration Management process to applicable NMCS systems; engineering support for Northstar and SATSTAR services transition to new NLCC transport infrastructure; and implementation/ engineering of expanded conferencing capabilities in support of all NMCS sites. This increase is partially offset by a decrease of -\$0.079 attributed to the Service Requirements Review Board (SSRB) contract reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<i>S32: NMCS Command Center Engineering</i>	6.315	0.938	0.575	1.863	-	1.863	1.849	1.823	1.855	1.866	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-3710.01 and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3280.01C, 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-3710.01 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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> NMCS Systems Engineering	0.938	0.575	1.863
<b>FY 2016 Accomplishments:</b>			
Maintained the NMCS Reference Guide (NRG) and the PCC Toolkit to ensure expanded collaboration and information sharing. Updated, automated and maintained the Online Companion Reference for the CJCSI 3280.01M which is critical to ongoing operations. Provided technical evaluations and strategies for implementing Nuclear Command and Control over IP into other National Leadership Command Capability (NLCC) enabling programs. Supported engineering requirements and continued in identifying technical solutions to integrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the NLCC. Focused on implementing collaborative tools into current and crisis operations areas, integrating adequate back-up storage and recovery of voice, video and data to support key leaders, and migrating data and voice networks to next generation satellites.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>The increase of +\$0.039 from FY 2015 to FY 2016 addressed data integration and engineering activities required to deliver enterprise level solutions to meet NMCS priorities.</p> <p><b>FY 2017 Plans:</b> Will modernize and integrate NMCS capabilities (e.g. transition platforms, data interfaces, security and graphical user interfaces) as the NMCS systems engineer IAW the CJCSI 3280 and CJCSI 5119. Will focus on the improvement of collaborative services, and the integration of new transport mediums that facilitate C3 services.</p> <p>The decrease of -\$0.413 from FY 2016 to FY 2017 is due to a reduction of Joint System Engineering &amp; Integration Office engineering and analysis efforts supporting Ultra High Frequency (UHF) Emergency Network (UEN) ground entry points (GEPs) re-siting and network infrastructure redesign.</p> <p><b>FY 2018 Plans:</b> Will continue to engineering and integrate the modernization of NMCS capabilities (e.g. transition platforms, data interfaces, security and graphical user interfaces) as the NMCS Systems Engineer IAW CJCSI 3280 and CJCSI 5119. Will focus on the improvement of collaborative services, and the integration of new transport mediums that facilitate C3 services. Integrate applicable portions of the NMCS into the National Leadership Command Capability (NLCC) portfolio.</p> <p>The increase of +\$1.367 from FY 2017 to FY 2018 is due to application of the NLCC Configuration Management process to applicable NMCS systems and to provide engineering support for Northstar and SATSTAR services transition to new NLCC transport infrastructure. This increase is partially offset by a decrease of -\$0.079 attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.938	0.575	1.863

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/PE 0302016K: O&M, DW	3.053	3.156	4.306	-	4.306	4.342	4.485	4.553	4.615	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
During FY2017 a full and open competition will be conducted for an NLCC Systems Engineering and Technical Assistance (SETA) contract to provided programmed support to JSEIO in FY2018 as follow-on to the previous contract with Raytheon, Arlington, VA.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

**E. Performance Metrics**

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

The NMCS met all FY 2016 performance metrics and is on track to meet its FY 2017 and FY 2018 metrics by delivering suitable products on schedule and within allocated resources 100% of the time.

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	117.426	9.729	18.041	21.564	-	21.564	22.009	21.335	21.819	22.268	Continuing	Continuing
E65: <i>Modeling and Simulation</i>	78.775	5.583	4.084	9.251	-	9.251	9.888	9.611	9.829	10.033	Continuing	Continuing
T62: <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>	38.651	4.146	13.957	12.313	-	12.313	12.121	11.724	11.990	12.235	Continuing	Continuing

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

The Defense Information Infrastructure Engineering and Integration effort encompasses two projects: Modeling and Simulation and DoD Information Network (DODIN) Systems Engineering and Support. There are two major activities under the Modeling and Simulation project: Modeling and Simulation and DODIN Enterprise Wide Systems Engineering (EWSE).

The DODIN EWSE activity resolves near term (one to three years) high-priority technical issues defined by DoD Chief Information Officer (DoD CIO) and Defense Information Systems Agency (DISA), that impact operational capabilities affecting DODIN End-to-End (E2E) interoperability and performance.

The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD CIO, the DISA Network Services Directorate, the DISA Enterprise Services Directorate, Program Executive Office-Mission Assurance, the Defense Information Systems Network Command Center and Joint Communications Simulation System users in DoD.

The DoDIN Systems Engineering and Support project performs discovery, research, development and experimentation of emerging and commercial technologies through the Office of the Chief Technology Officer (OCTO) to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP). The OCTO identifies these gaps/shortfalls, pursues leading innovative solutions from industry, academia, and the Federal sector, and engages industry partners for commercial best practices. The OCTO Develops technology forecasts and innovation roadmaps for existing and nascent DISA Programs in the following areas: Process/Automation, Cloud, Cyber Security, End-User Devices, Communication (DoDIN/Mobile/End-User Devices). The OCTO conducts technical system engineering reviews and oversight of DISA and DoD enterprise products and services. The OCTO performs early identification of technology needs and explores, develops, and delivers recommended emerging technologies to the DISA Requirements & Analysis Office.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	10.120	18.041	23.499	-	23.499
Current President's Budget	9.729	18.041	21.564	-	21.564
Total Adjustments	-0.391	0.000	-1.935	-	-1.935
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.391	-			
• SBIR/STTR Transfer	-	-			
• Other adjustments	-	-	-1.935	-	-1.935

**Change Summary Explanation**

The decrease of -\$1.935 in FY 2018 is attributable to the shifting of agency priorities to align with evolving mission. The decrease is attributed to the termination in research efforts of the Service Level Interoperability of Tactical Edge Core (SLITEC). Decrease is also attributable to technology maturing at such a rapid pace, it is imperative to rapidly assess, integrate, and transition promising technologies and capabilities. To improve efficiency and effectiveness of these processes, the assessment framework will be streamlined to reduce the timelines, resource requirements, and fiscal requirements. Capability prototypes will be delivered more rapidly through the use of Other Transaction Authorities (OTAs) and/or Broad Agency Announcements (BAAs), and joint assessment initiatives and partnerships will be coordinated. These improvements are expected to yield an estimated cost savings in FY 2018.

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
<i>E65: Modeling and Simulation</i>	78.775	5.583	4.084	9.251	-	9.251	9.888	9.611	9.829	10.033	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 2016	FY 2017	FY 2018
<b>Title:</b> Modeling and Simulation	5.583	4.084	9.251
<b>FY 2016 Accomplishments:</b> Resolved high-priority technical issues impacting interoperability of DODIN capabilities in communications, computing services, applications/services, information assurance (IA) and net-centric operations (NetOps). Analyzed/prototyped cloud computing services that can be integrated or interoperated with DoD capabilities. Identified capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyzed and evaluated existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and performed technical assessments to develop technical recommendations supporting solution development decisions. Analyzed/prototyped cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Examined application of SDN technologies for Core Data Centers and DISN. Performed technical assessments for open source alternatives for new technology solutions. Developed enterprise architecture and SysML modeling artifacts for high priority DISA enterprise services. Enhanced proactive end-to-end performance capabilities, including data collection and tools to support enterprise wide			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR.</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 2018 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise Services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and additional organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and 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><b>FY 2017 Plans:</b> Will evolve EWSE and standards efforts to operationalize the E2E performance efforts and distill the standards efforts to support DISA Strategic Initiatives and to resolve high-priority technical issues impacting interoperability of DoDIN capabilities in communications, computing services, enterprise applications/services, information assurance (IA) and net-centric operations (NetOps). Will identify capability candidates for analysis; perform technical market research, alternatives analysis and trade-off studies of candidates within a defined trade space; analyze and evaluate existing/new capabilities through engineering methods to include proof-of-concept demonstrations; and perform technical assessments to develop technical recommendations supporting solution development decisions. Will analyze/prototype cloud computing services and open source capabilities for integration and interoperability with DoD capabilities. Will support application and implementation of SDN technologies for Core Data Centers and the DISN. Will continue to enhance end-to-end performance capabilities, including data collection and tools to support enterprise wide troubleshooting and analysis. The results will be socialized with the DoD community for action/adoption or further development. Where appropriate, the results will also be documented in GTP for compliance by the POR.</p> <p>Will continue efforts to enhance modeling capabilities that will provide DISN IP and Transport Capacity Planning models and expand computing infrastructure modeling capabilities, modifying tools and processes to reflect the operational DODIN architecture and technologies as evolved under Joint Regional Security Stacks (JRSS) and the common informational architecture initiatives and technical advances. These enhancements include: (1) preparing for the FY 2019 Technology Refresh (feasibility analyses required prior to hardware being added to the DODIN) and new user requirements; (2) enhanced modeling and instrumentation techniques for new or evolving enterprise services and customer needs in DISA program/project decisions and planning; (3) DoD Internet traffic models and analyses for capacity planning and IA initiatives for CYBERCOM and organizations within DISA; (4) enhanced modeling tools and techniques to provide inputs to network planning and performance assessments</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>in support of Unified Communications and End-to-End (E2E) security goals of the evolving DODIN; (5) capacity planning for data centers infrastructure computing and network; and (6) an updated version of the Joint Communications Simulation System.</p> <p>There is a decrease of -\$1.499 between FY 2016 and FY 2017. The FY 2017 funding will be used to broadened and enhanced modeling and simulation methodologies to properly identify the network planning and bandwidth sufficiency needs of the evolving DODIN.</p> <p><b>FY 2018 Plans:</b> Will develop modeling and simulation tools to analyze planned changes to the DISN optical and IP core network, data centers, internet and commercial cloud computing gateways, and network security solutions. Will develop capabilities for analysis of software defined networking. Will perform test and evaluation of DISN Internet Access Point security solutions with government and contracted labor support. Will research technologies and solutions that can be transitioned to operations and will demonstrate feasibility through solutions analysis and proof-of-concept development and test. Will perform product and solution assessments using developed modeling tools to provide technical solutions for IT capabilities to ensure compatibility and interoperability with the DISN, data centers, and JIE solution architectures. Will develop application performance monitoring framework to support reliable operation of enterprise services and applications.</p> <p>The increase of +\$5.167 from FY 2017 to FY 2018 is attributed to increased efforts in evaluating tools and solutions for a regional defensive cyber security systems, performance of cloud computing and security. Additionally, the increase is associated with test and evaluation of larger scale software defined data centers and network function virtualization. This increase is partially offset by a decrease of -\$0.207 is attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	5.583	4.084	9.251

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	15.496	15.989	15.606	-	15.606	16.437	16.579	16.911	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
EWSE uses contractors to assist/supplement the Government lead/team for technical activities. Subject matter experts in both large and small businesses are sought for the engineering support. Firm fixed price contracts with one option year are typically used in open competition. Furthermore, technical work with Federally Funded

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>
<p>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&amp;D in the key technology.</p> <p>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.</p> <p><b>E. Performance Metrics</b></p> <p>DISN core transport bandwidth sufficiency, tied to capacity planning and activation of bandwidth in the DISN optical core to keep at least 25% spare capacity, to allow for provisioning of unforeseen requirements and rerouting under outages.</p> <p>DISN IP Core bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of DISN IP Core and NIPRNet backbone circuits under 65% during daily peak periods.</p> <p>DISN SIPRNet bandwidth sufficiency tied to capacity planning and activation of IP bandwidth to maintain average bandwidth utilization of SIPRNet backbone circuits under 50% during daily peak periods.</p> <p>The EWSE projects will be measured by the number of technical studies performed with associated systems engineering artifacts (market research reports, technology assessments, solutions analyses, etc.) that are developed to support DODIN capabilities; and the number of proof-of-concept demonstrations or pilots executed to support viability of the technical approach/recommendation. These products will be coordinated with the stakeholders, users and/or Program Management Offices (PMO) to ensure EWSE provides the right deliverables for solution development decisions.</p> <p>FY 2016 completed: 1 technical studies, 1 engineering artifact, and 0 concept demonstrations.  FY 2017 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.  FY 2018 planned target: 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.</p> <p>The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD Enterprise Activities, the DODIN and DISA applications, as well as engineering capabilities support to programs and projects to address technical and engineering solutions to activities such as information assurance and cyber security; mobility and cloud technologies and warfighter and mission support activities.</p>		



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<b>Exhibit R-2A, RDT&amp;E Project Justification: FY 2018 Defense Information Systems Agency</b>										<b>Date: May 2017</b>		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration				<b>Project (Number/Name)</b> T62 / DoD Information Network (DoDIN) Systems Engineering and Support			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T62: DoD Information Network (DoDIN) Systems Engineering and Support	38.651	4.146	13.957	12.313	-	12.313	12.121	11.724	11.990	12.235	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The DoD Information Network (DODIN) Systems Engineering and Support project aligns with the updated DISA Strategic Plan, which includes the Chief Technology Officer's Outlook and a Technology Watchlist. The Watchlist identifies key technology areas that are essential for Defense Information Systems Agency (DISA) including: Process/Automation, Cloud, Cyber Security, End-User Devices, and Communication (DoDIN, Mobile/End-User Devices).

The DODIN Systems Engineering and Support Project ensure the technical strategies for the Defense Information Systems Agency (DISA) are in line with the DoD IT Efficiency strategy and the latest Department of Defense Chief Information Office (DoD CIO) Capabilities Planning Guidance (CPG) through the Office of the Chief Technology Officer (OCTO). These strategies will establish the foundation for DISA's technology investments and technical development. The OCTO leverages emerging technology to drive efficiencies and cost savings to the DoD, the Warfighter, and other Federal Agencies, and provides actionable, decision-oriented information to the Secretary of Defense, Joint Staff, Military Services, Combatant Commands, and other mission partners in satisfying DoD mission objectives. Cyber security and cloud computing present critical near term challenges, especially the ability to securely leverage commercial cloud service offerings. The OCTO's partnership with Defense Advanced Research Projects Agency (DARPA) will assess and transition technologically relevant and mature solutions. Included are applications with a security wrapper that detect and mitigate cyberattacks; smart routing and managed reputation capability; embedded system defense capabilities; and resilient and intrusion-tolerant network capabilities.

Partnerships with industry, academia, and the Federal sectors will produce requisite cyber measures and ensure optimal use of commercial cloud services. The OCTO will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the Technology Assessment Framework (TAF) and the DISA Technology Information Repository (DTIR), the OCTO will perform "quick looks" and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities; physical containers to enable mobile data center; emerging open source Storage Service APIs and/or abstractions and global standards for storage services; analytic platform performance baselines of emerging commercial analytic platform products; advanced approaches to Continuity of Operations (COOP) in a hybrid cloud environment; and the next generation software defined networks for automating and virtualizing the DODIN.

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

<b>Title:</b> Department of Defense Information Network (DODIN) Systems Engineering and Support	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
	4.146	13.957	12.313
<b>FY 2016 Accomplishments:</b> CTO continued to develop the Technology Environment (TE), composed of the technical infrastructure, associated processes, practices, and methodologies that are used to evaluate and characterize new technologies. Projects like CTO's Quick Win			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>

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

	FY 2016	FY 2017	FY 2018
<p>Concept Demonstrators (QWCD) delivered to the department and the Warfighter a more secure light weight tablet device that allow full access to office automations which can be leveraged anytime and anywhere. Within the TE, CTO performed technical assessments and proof of concepts for key capability portfolios (Networking, computing &amp; storage, UC, mobility, cyber security, and network operations). CTO included 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 DoD Information Network (DoDIN). CTO continues to partner with commercial partners, academia, technology 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. The CTO authored the Software Defined Network (SDN) security framework document which provides security parameters for the SDN. CTO has developed to concept of operations market analysis report for milCloud v2.0 which is the next generation DoD cloud environment.</p> <p><b>FY 2017 Plans:</b></p> <p>Will conduct technology assessments, process improvements, as well as the analysis and review of potential technology solutions, products, capabilities and services to ensure consistency with DODIN architecture and standards. Enabled by the TAF and the Defense Technical Intelligence Report (DTIR), the OCTO will perform “quick looks” and deeper technology evaluations to provide critical awareness, characterization, and suitability of specific technologies. These include the assessments of advanced cloud management capabilities, physical containers to enable mobile data center; emerging open source Storage Service APIs and/or abstractions and global standards for storage services, analytic platform performance baselines of emerging commercial analytic platform products, advanced approaches to COOP in a hybrid cloud environment, and the next generation software defined networks for automating and virtualizing the DODIN.</p> <p>Will assess and transition technologically relevant and mature solutions, provides smart routing and managed reputation capabilities; Software Symbiotes which provides embedded system defense capabilities; and advanced technologies and protocols that provide resilient and intrusion-tolerant network and messaging capabilities.</p> <p>Will produce requisite cyber measures and ensure optimal use of commercial cloud services through Partnerships with industry, academia, and the Federal sectors.</p> <p>The increase of +\$9.811 from FY 2016 to FY 2017 is primarily attributable to the discovery, research, development and experimentation of emerging and commercial technology needed to support the development and adoption of key technological solutions, the realignment of civilian Full-Time-Equivalents (FTEs) and the associated payroll from PE0604764K to promote centralized, coordinated technology policy, direction, standards, and leadership allowing CTO and DISA the ability to influence</p>			

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2016	FY 2017	FY 2018
<p>and promote technology innovation that meets future DoD requirements. In addition, CTO will perform assessment and reconnaissance of emerging technologies.</p> <p><b>FY 2018 Plans:</b> The CTO will expand its focus on laboratory prototyping known as Software Defined Everything (SDE) which is based on the notion of using software to keep redefining itself, rather than being locked into operating in a specific way. It is easily reconfigurable and extensible software that rapidly morphs to adapt to newly emerging situations. SDE will serve as an enabler to leverage capabilities from five principal areas. These five areas are; Process/Automation, Cloud, Cyber Security, End-User Devices, Communication (DoDIN, Mobile/End-User Devices). CTO will conduct technical assessments for future cloud computing technologies and innovative service delivery models, mobile devices, application development and vetting best practices, and next generation virtualized Software Defined Networks (SDN) for automating and virtualizing the DODIN. CTO will partner with commercial partners, academia, technical analysis centers, as well as organizations within the Intelligence Community, to bring state of the art capabilities to the DISA/DoD resulting in better communications and monitoring tools, enterprise services and improved end-user services and capabilities. CTO will continue to pursue and refine methods, processes and strategies to assist in the acceleration of capability into the operational environment.</p> <p>There is a decrease of -\$1.644 from FY 2017 to FY 2018. The FY 2017 funding will be used to morph to an internet 2.0 environment where DoD, other government organizations, coalition members, first responders, private industry, academia and commercial vendors will be able to share secured data and information in such a way that adversaries can be identified, found, brought to Justice before inflicting harm on innocent citizens and allies anywhere in the world. CTO will aggressively pursue next generation technologies to feed the internet 2.0 environment. These technologies will be leveraged through the expansion of a CTO futuristic Skunk Works effort known as Software Defined Everything (SDE) which is based on the notion of using software to keep redefining itself, rather than being locked into operating in a specific way. It is easily reconfigurable and extensible software that rapidly morphs to adapt to newly emerging situations. SDE will serve as an enabler for the internet 2.0 environment. This increase is partially offset by a decrease of -\$0.276 is attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	4.146	13.957	12.313

<b>C. Other Program Funding Summary (\$ in Millions)</b>										
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete Total Cost
• O&M, DW/PE 0302019K: <i>Operation &amp; Maintenance, Defense-Wide</i>	0.994	2.607	2.773	-	2.773	2.814	2.899	2.962	3.035	Continuing Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											

**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**

Number of Technology Assessments

Performance is measured by the number of technologies assessed and the technologies transitioned or presented to DISA decision-making bodies such as the Service Portfolio Council (SPC) for acquisition decisions. The assessments identify, promote, channel and align technology research and investments. The objectives are to satisfy warfighter requirements by addressing capability gaps, to improve operational effectiveness and efficiency, and to reduce the time needed to field emerging technologies.

Measure/Goal: Number of technology assessments instantiated within the CTO Technology Environment. Number of research initiatives designed, developed, demonstrated, and transitioned or presented to DISA decision-making bodies such as the SPC for acquisition decisions.

FY 2016 Actual: 10 Assessed and 5 transitioned Target: Met  
 FY 2017 Target: 8 Assessed and 5 transitioned  
 FY 2018 Target: 12 Assessed and 8 transitioned

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DoDIN) Systems Engineering and Support
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<b>Product Development (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	7.527	1.584	Oct 2015	2.299	Oct 2016	1.500	Oct 2017	-		1.500	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	0	0.249	0.249
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	0	1.211	1.211
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	0	1.601	1.601
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	0	11.794	11.794
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	4.260	-		-		-		-		-	0	4.260	4.260
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : TBD	1.212	-		-		-		-		-	0	1.212	1.212
Engineering Technical Services	MIPR	TBD : TBD	3.315	-		-		-		-		-	0	3.315	3.315
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	1.551	-		0.540	Jul 2017	-		-		-	0.000	2.091	2.091
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		-		-		-		-	0	0.376	0.376
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	0	0.691	0.691
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.202	-		-		-		-		-	0	0.202	0.202
Product Development	C/FFP	SOLERS : Arlington, VA	0.995	-		1.378	Jul 2017	0.650	Jul 2018	-		0.650	Continuing	Continuing	Continuing
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	0.500	-		-		0.562	Jan 2018	-		0.562	Continuing	Continuing	Continuing
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	0	0.351	0.351

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / Defense Info. Infrastructure Engineering and Integration	<b>Project (Number/Name)</b> T62 / DoD Information Network (DoDIN) Systems Engineering and Support
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<b>Product Development (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 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>			
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	1.742	1.429	Dec 2015	0.782	Oct 2016	1.528	Oct 2017	-		1.528	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	IV2: IT Consulting Services, LLC : Jackson, WY	1.074	0.600	Oct 2015	-		-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : TBD	-	0.533	Oct 2015	0.208	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/CPFF	TIE NEMS: B&D Consulting : TBD	-	-		0.564	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Engineering Technical Services	C/Various	Tapestry Technologies, INC : TBD	-	-		1.637	Mar 2017	2.536	Mar 2018	-		2.536	Continuing	Continuing	Continuing
Management Services - Civilian Pay	Various	Various : Ft. Meade	-	-		6.549	Oct 2016	4.957	Oct 2017	-		4.957	Continuing	Continuing	Continuing
Engineering Technical Services	C/FFP	PMPC-Itility LLC : Ft. Meade, MD	-	-		-		0.580	Mar 2018	-		0.580	Continuing	Continuing	-
<b>Subtotal</b>			38.651	4.146		13.957		12.313		-		12.313	-	-	-

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	38.651	4.146	13.957	12.313	-	12.313	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>		<b>Date: May 2017</b>
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>

FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Technical Direction Agent (TDA)</b>	
Technical Direction Agent (TDA)	
<b>Engineering Support</b>	
Engineering Support	
<b>Industry/University Technical Research</b>	
Industry/University Technical Research	
<b>Technology Assessments</b>	
Technology Assessments	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0302019K / <i>Defense Info. Infrastructure Engineering and Integration</i>	<b>Project (Number/Name)</b> T62 / <i>DoD Information Network (DoDIN) Systems Engineering and Support</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Technical Direction Agent (TDA)</b>				
Technical Direction Agent (TDA)	1	2016	4	2022
<b>Engineering Support</b>				
Engineering Support	1	2016	4	2022
<b>Industry/University Technical Research</b>				
Industry/University Technical Research	1	2016	4	2022
<b>Technology Assessments</b>				
Technology Assessments	1	2016	4	2022



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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303126K / <i>Long-Haul Communications - DCS</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	218.752	36.884	13.994	15.428	-	15.428	15.002	14.951	15.262	15.557	Continuing	Continuing
PC01: <i>Presidential and National Voice Conferencing/</i>	65.571	28.122	3.072	3.195	-	3.195	3.159	3.134	3.148	3.256	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	153.181	8.762	10.922	12.233	-	12.233	11.843	11.817	12.114	12.301	Continuing	Continuing

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

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

**DISN Systems Engineering Support:** This effort includes engineering for Networking capabilities and optical transport capabilities to ensure the essential operations of a robust and secure DISN; refreshing the systems that instrument and automate the operations, administration, maintenance and provisioning functions and creating a single DISN-wide view for network managers and operators.

**PNVC:** The PNVC 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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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: FY 2018 Defense Information Systems Agency</b>	<b>Date: May 2017</b>
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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 0303126K / <i>Long-Haul Communications - DCS</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	36.830	13.994	13.517	-	13.517
Current President's Budget	36.884	13.994	15.428	-	15.428
Total Adjustments	0.054	0.000	1.911	-	1.911
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.054	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	1.911	-	1.911

**Change Summary Explanation**

The increase of \$1.911 in FY2018 will fund additional support to meet new operational needs in a more rapid manner and simultaneously take advantage of industry advancements. This will include research and test activities in support of necessary encryption, cybersecurity, redundancy and diversity requirements integrated into the DISN. The effects of this enhancement will include test and evaluate technologies enabling both current and future projected DISN services, networking technologies and architectures to include but not limited to connectivity devices to access points, software defined capabilities and survivability. This also supports test and deploy DISN capabilities into tactical environments.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
PC01: Presidential and National Voice Conferencing/	65.571	28.122	3.072	3.195	-	3.195	3.159	3.134	3.148	3.256	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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Presidential and National Voice Conferencing (PNVC)	28.122	3.072	3.195
<b>Description:</b> Presidential and National Voice Conferencing (PNVC) Systems Engineering conduct analyses for continuity of NEADN voice conferencing for national/military leaders through PNVC deployment. Program continues engineering, technical analysis, development, and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders.			
<b>FY 2016 Accomplishments:</b> Continued 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. Also provided systems engineering and testing support to integrate baseband kits to military aircrafts (Air Force E-4B and Navy E-6B).			
<b>FY 2017 Plans:</b> Continue to support PNVC integration and testing and fielding of initial capability and upgrades at PNVC sites. This includes systems engineering and testing support to the various platforms receiving the capability.			
The decrease of -\$25.050 from FY 2016 to FY 2017 is primarily attributed to the one time increase in FY 2016 to complete the airborne variants of the PNVC baseband equipment. The original environmental requirements for the PNVC baseband equipment were changed in FY14 and the original designs were deemed suitable only for ground locations. This necessitated the creation of airborne variants of the baseband equipment to meet the more stringent aircraft requirements of the E-4B and E-6B platforms.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
The funding for the Engineering Change Proposals (ECPs) to develop the airborne versions came in two increments: an FY15 reprogramming and in FY16 to complete the development.  <b>FY 2018 Plans:</b> Continue to support PNVC integration and testing and fielding of expanded capability and upgrades at PNVC sites. This includes systems engineering and testing support to the various platforms receiving the capability. Fund Engineering change proposals for software as needed to respond to user feedback.  The increase of +\$0.123 from FY 2017 to FY 2018 is attributed to increased requirements for engineering support during system testing and changes to software.			
<b>Accomplishments/Planned Programs Subtotals</b>	28.122	3.072	3.195

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• Procurement, DW/PE 0303126K: <i>Procurement, Defense-Wide</i>	1.377	1.119	1.261	-	1.261	1.386	1.515	1.546	1.577	Continuing	Continuing

**Remarks**

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

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

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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>
Performance Metrics:		
Project Support Deliverables received on time		
FY16 (actual result): 100%		
FY17 (expected result): 100%		
FY18 (expected result): 100%		
Product Deliverable Milestones completed on time		
FY16 (met): 100%		
FY16 (expected result): 100%		
FY17 (expected result): 100%		
Successfully Tested Requirements:		
FY16: N/A		
FY17 (expected result): 95%		
FY18 (expected result): 95%		
Critical Trouble Reports > 6 months old		
FY16 (met) 100%		
FY15 (expected result): ≤ 4		
FY16 (expected result): ≤ 4		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T82: DISN Systems Engineering Support	153.181	8.762	10.922	12.233	-	12.233	11.843	11.817	12.114	12.301	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The DISN Systems Engineering Support project encompasses four activities:

Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh): Provides engineering technical expertise to support and integrate newer, more efficient technologies required to replace end of lifecycle equipment and to achieve more efficient Networking technologies. These new technologies provide protected and assured services for critical support to the warfighter as well as other DoD and federal customers.

Element Management System (EMS): Provides operational and network operating systems that instrument and automate the operations, administration, maintenance and provisioning functions creating a single DISN-wide view for network managers and operators. EMS is a component of the DISN Operational Support Systems (OSS).

Peripheral and Component Design (Secure Voice Switches): This equipment satisfies unique military requirements for multi-level security (i.e., extensive conferencing/conference management capabilities and features, and gateway functions) that are not available in commercial products.

DoD Mobility: 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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh.	2.899	3.162	5.400
<b>FY 2016 Accomplishments:</b> Purchased and tested commercially available components to replace end of life/obsolete equipment deployed on the DISN. Focus was be on optical and IP routers, switches and Communications Security (COMSEC) equipment. Also continued functionality testing of 100G-capable commercial components with a focus on streamlining the overall DISN architecture profile.			
<b>FY 2017 Plans:</b> The test and evaluation of technologies required to meet the needs of the evolving DISN.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
The decrease of -\$0.227 from FY 2016 to FY 2017 is due to a reduction in technical evaluation activities. <b>FY 2018 Plans:</b> The increase +\$2.238 from FY 2017 to FY 2018 will support additional test and evaluation of networking components for efforts such as Automated Provisioning and Software Defined Networking for IP and Optical components.				
<b>Title:</b> DISN OSS <b>FY 2016 Accomplishments:</b> No planned accomplishments. <b>FY 2017 Plans:</b> Will develop web services in support of Information Sharing Services.  The increase of +\$0.764 from FY 2016 to FY 2017 is due to an increase in web service development. <b>FY 2018 Plans:</b> No plans required.  The decrease of -\$0.764 from FY 2017 to FY 2018 is due to the reduction in web services development requirements for operational and network operating systems within the DISN OSS.		0.000	0.764	0.000
<b>Title:</b> Peripheral and Component Design <b>FY 2016 Accomplishments:</b> Performed integration and testing of the production units of switch IP Media cards (developed in FY12-14) to ensure compatibility with Voice Over Internet Protocol (VoIP)/ Voice Over Secure Internet Protocol (VoSIP) capabilities. Continued Engineering Change Proposal (ECP) effort from FY2015 to modify software to support full capabilities in to improve reliability and performance supporting transition to IP trunking between switches. <b>FY 2017 Plans:</b> Support ECP for upgrades to National Conference Management capabilities to incorporate new software updates and changes driven by user feedback and improve performance. Also fund modifications needed to support line side IP services as part of time Division multiplexing (TDM) elimination efforts.  The increase of +\$0.671 from FY 2016 to FY 2017 is due to increased ECP activities and increased contract requirements for ECPs. <b>FY 2018 Plans:</b>		1.694	2.565	2.413

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Support upgrades to switch software for IA/Cybersecurity improvements and continued integration of IP trunking and IP line-side and gateway functions in evolving system to meet RMF and NC3 requirements.			
The decrease of -\$0.152 from FY 2017 to FY 2018 reflects a decrease in the amount of software development and testing efforts required in FY 2018.			
<p><b>Title:</b> Mobility</p> <p><b>FY 2016 Accomplishments:</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><b>FY 2017 Plans:</b> DoD Mobility will continue to evaluate and test the centralized mobility management components for the classified components and support T&amp;E of centralization of the mobile device hardware, software, middleware, and MDM capabilities. T&amp;E of mobile devices includes prototypes for next generation classified devices and assured interoperability for new commercial mobile devices. T&amp;E of mobile applications ensures mobile applications are verified and validated prior to hosting on the MAS. T&amp;E of DoD Mobility NIPRNet &amp; SIPRNet Suite insertion efforts includes mobile VPN and authentication, verification and validation testing of devices used against the MDM, and requirements testing to ensure Mobility's requirements have been met.</p> <p>The decrease of -\$4.486 from FY 2016 to FY 2017 is due to planned program reductions as a result of completing pre-fielding for TS and Secret, certification and testing requirements as the DMCC continues to mature. Testing and fielding certification</p>	4.169	4.431	4.420



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
reductions are tied to the fielding of mobile device hardware, software, middleware, and MDM associated capabilities integration efforts.			
<b>FY 2018 Plans:</b> DoD Mobility will continue to evaluate and test the centralized mobility management components for the top secret capabilities as well as newly deployed mobile device hardware, software, middleware that will be integrated into the existing infrastructure. T&E of next generation prototype devices, assured interoperability and application integration for new commercial mobile devices will continue through the FYDP.			
The decrease of -\$0.011 from FY 2017 to FY 2018 is due to decreased testing and integration of the DMCC-S proxy server.			
<b>Accomplishments/Planned Programs Subtotals</b>	8.762	10.922	12.233

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M/PE0303126K: <i>Operation &amp; Maintenance, Defense-Wide</i>	61.246	35.685	39.040	-	39.040	37.426	37.522	38.259	-	Continuing	Continuing
• Procurement/PE0303126K: <i>Procurement, Defense-Wide</i>	139.921	99.928	115.194	-	115.194	116.958	117.993	117.993	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Products acquired for EMS requirements are professional services, network management software, supporting hardware, and development tools. Professional services will be procured through existing contracts available to DISA. The DISA Computing Services will be used for hardware and software leased managed services, as well as the NASA enterprise equipment contracting vehicle when necessary and applicable.

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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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<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>
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The Internet Protocol (IP) enabling of the DRSN DSS-2A switch, Secure voice conference management improvements, HEMP Phone and related DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the Secure Voice Switch systems manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.

The Mobility initiative supports systems engineering and development of a DoD Mobility solution. The focus is on acquisitions to support the program across the DoD to include scheduling, delivery approach, and risk management. This also includes the vision and phased approach to unified capabilities for classified and unclassified wireless capabilities to meet DoD needs.

**E. Performance Metrics**

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

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

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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

FY 2018 (Estimated): 100% successful developmental and production testing of new-model commercial mobile devices per product baseline, per carrier, per platform authenticated against the Mobile Device Manager. Successful security, interoperability, and functional evaluation of at least of 85% of mobile applications requested to be approved and available in the hosted Mobile Application Store. 100% successful production testing of the applications development framework and integration testing for infrastructure components, including additional gateway instances supporting secret and top secret domains as well as any COTS component technology refresh requirements against the end-to-end architecture.

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	10.035	1.194	Feb 2016	2.565	Feb 2017	0.983	Mar 2018	-		0.983	Continuing	Continuing	Continuing
Systems Engineering for IP Enabling DSS-2A Secure Voice Switch	C/T&M	Raytheon : Florida	21.440	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Services for Information Sharing Services for Voice	C/T&M	SAIC : VA	2.774	-		-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	Various : VA	2.026	-		-		-		-		-	Continuing	Continuing	Continuing
Single Sign On	C/T&M	SAIC : Various	1.397	-		-		-		-		-	Continuing	Continuing	Continuing
System Engineering for VoSIP	C/T&M	Various : Various	1.218	-		-		-		-		-	Continuing	Continuing	Continuing
Space Vehicle Upload	SS/CPFF	Iridium : McLean, VA	12.635	-		-		-		-		-	Continuing	Continuing	Continuing
Gateway Improvement	SS/CPFF	Iridium : McLean, VA	13.565	-		-		-		-		-	Continuing	Continuing	Continuing
Field Application Tool	MIPR	NSWC : Dahlgren	6.635	-		-		-		-		-	Continuing	Continuing	Continuing
DTCS Handset	SS/CPFF	Iridium : McLean, VA	5.850	-		-		-		-		-	Continuing	Continuing	Continuing
Command and Control Handset	SS/CPFF	Iridium : McLean, VA	7.275	-		-		-		-		-	Continuing	Continuing	Continuing
Alt. Supplier Development	MIPR	NSWC : Dahlgren, VA	3.450	-		-		-		-		-	Continuing	Continuing	Continuing
Radio Only Interface	MIPR	NSWC : Dahlgren, VA	2.525	-		-		-		-		-	Continuing	Continuing	Continuing
Remote Control Unit	SS/CPFF	Iridium : McLean, VA	2.100	-		-		-		-		-	Continuing	Continuing	Continuing
Type 1 Security	SS/CPFF	Iridium : McLean, VA	6.455	-		-		-		-		-	Continuing	Continuing	Continuing
Vehicle Integration	MIPR	NSWC : Dahlgren, VA	3.185	-		-		-		-		-	Continuing	Continuing	Continuing

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	8.717	-		-		-		-		-	Continuing	Continuing	-
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis : VA	1.168	-		-		-		-		-	-	-	-
System Engineering and Technical Services for ISOM	Various	DITCO : Various	2.915	-		-		-		-		-	-	-	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.822	-		-		-		-		-	-	-	-
Gateways - Mobility	TBD	TBD : TBD	7.107	-		-		-		-		-	-	-	-
Thin Client Solution - Mobility	TBD	TBD : TBD	1.550	0.604		-		-		-		-	-	-	-
New Field Communications	C/FFP	TBD : TBD	0.550	-		-		-		-		-	-	-	-
National Conference Management	MIPR	USAF : Ratheon	4.514	-		-		-		-		-	-	-	-
IP Enable DRSN	MIPR	USAF : Ratheon	1.562	-		-		1.408	Feb 2018	-		1.408	-	-	-
HEMP Phone Development	TBD	Raytheon : TBD	0.869	-		-		-		-		-	-	-	-
100G Optical	TBD	TBD : TBD	0.337	-		-		-		-		-	-	-	-
Defense Production Act III Optical Networking	TBD	TBD : TBD	-	2.666		-		-		-		-	Continuing	Continuing	-
DoD Mobility Capability Service Assurance	C/FFP	TBD : TBD	1.416	0.900		-		-		-		-	-	-	-
TBD	TBD	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
TBD	TBD	*** PERFORMING ACTIVITY *** : *** LOCATION ***	-	-		-		2.420	Feb 2018	-		2.420	Continuing	Continuing	-
System Engineering Support DMCC/DMUC	C/FFP	JHU-APL : NAVSEA	-	-		-		-		-		-	Continuing	Continuing	-

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
System Engineering Support DMCC/DMUC	C/FFP	BAH : TBD	-	-		-		2.000	Feb 2018	-		2.000	Continuing	Continuing	-
<b>Subtotal</b>			134.092	5.364		2.565		6.811		-		6.811	-	-	-

<b>Support (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	-		-		-		-		-	-	-	-
<b>Subtotal</b>			5.611	-		-		-		-		-	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	5.554	1.095	Oct 2015	1.593	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	3.710	1.300	Oct 2015	0.897	Oct 2016	-		-		-	-	-	-
Integration, Test ann Modification - Mobility	Various	TBD : TBD	4.214	1.003	Nov 2015	1.941	Nov 2016	-		-		-	-	-	-
Tech Refresh/Functionality Testing	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
Tech Refresh/Functionality Testing	MIPR	Naval Observatory : MA	-	-		-		-		-		-	-	-	Continuing
OSS/Functionality-Configuration	MIPR	Multiple : Various	-	-		-		-		-		-	Continuing	Continuing	Continuing
DISN Tech Refresh	TBD	TBD : TBD	-	-		3.926	Jan 2017	0.000		-		0.000	-	-	-



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>		<b>Date: May 2017</b>
<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 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>DRSN</b>	
DRSN	
<b>OSS</b>	
OSS	
<b>Technology Refresh</b>	
Technology Refresh	
DISN Tech Refresh	
<b>Mobility</b>	
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	
DoD Mobility Gateways - Architecture Support	
NIPR Enclave (MDM, MAS)	
SIPR Enclave (MDM, MAS)	
TS Enclave (MDM, MAS)	
MDM & MAS Operational Testing	

FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>DRSN</b>	
DRSN	
<b>OSS</b>	
OSS	
<b>Technology Refresh</b>	
Technology Refresh	



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**Exhibit R-4, RDT&E Schedule Profile: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DISN Tech Refresh																												
<b>Mobility</b>																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
DoD Mobility Gateways - Architecture Support																												
NIPR Enclave (MDM, MAS)																												
SIPR Enclave (MDM, MAS)																												
TS Enclave (MDM, MAS)																												
MDM & MAS Operational Testing																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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	2021
<b>OSS</b>				
OSS	1	2015	4	2016
<b>Technology Refresh</b>				
Technology Refresh	1	2015	4	2021
DISN Tech Refresh	1	2017	4	2022
<b>Mobility</b>				
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2015	4	2017
DoD Mobility Gateways - Architecture Support	1	2015	4	2022
NIPR Enclave (MDM, MAS)	1	2015	4	2017
SIPR Enclave (MDM, MAS)	1	2016	4	2018
TS Enclave (MDM, MAS)	1	2016	4	2020
MDM & MAS Operational Testing	1	2015	4	2022

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	140.481	13.384	12.206	15.855	-	15.855	15.883	15.721	16.025	16.320	Continuing	Continuing
T64: <i>Special Projects</i>	65.934	5.051	5.207	5.481	-	5.481	5.458	5.558	5.564	5.562	Continuing	Continuing
T70: <i>Strategic C3 Support</i>	74.547	8.333	6.999	10.374	-	10.374	10.425	10.163	10.461	10.758	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 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	13.735	12.206	16.449	-	16.449
Current President's Budget	13.384	12.206	15.855	-	15.855
Total Adjustments	-0.351	0.000	-0.594	-	-0.594
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.351	-	-0.594	-	-0.594

**Change Summary Explanation**

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

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
T64: <i>Special Projects</i>	65.934	5.051	5.207	5.481	-	5.481	5.458	5.558	5.564	5.562	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 2016	FY 2017	FY 2018
<b>Title:</b> Special Projects	5.051	5.207	5.481
<b>Description:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2016 Accomplishments:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2017 Plans:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>FY 2018 Plans:</b> Program is classified and exhibit will be provided under a separate cover.			
<b>Accomplishments/Planned Programs Subtotals</b>			5.481

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

N/A

**Remarks**

**D. Acquisition Strategy**

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

**E. Performance Metrics**

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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017			
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	
T70: <i>Strategic C3 Support</i>	74.547	8.333	6.999	10.374	-	10.374	10.425	10.163	10.461	10.758	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

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

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

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Systems Engineering, Analysis and Architecture	8.333	6.999	10.374
<b>FY 2016 Accomplishments:</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.			
<b>FY 2017 Plans:</b> Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development.</p> <p>The decrease of -\$1.566 from FY 2016 to FY 2017 is a result of decreased end-to-end user assessments for Senior Leader communications and mission effectiveness and a reduction in engineering activities supporting the transition of NLCC future capabilities to full operational capability.</p> <p><b>FY 2018 Plans:</b> Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development.</p> <p>The increase of +\$3.672 from FY 2017 to FY 2018 is due to additional number of technical assessments required, expansion of the production of architectural artifacts required to complete the NLCC Technical Architecture; development of a NLCC Modeling and Simulation (M&amp;S) capability; support engineering and implementation of the NLCC enterprise mobility infrastructure. Part of the overall increase (-\$0.297) is attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	8.333	6.999	10.374

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, PE 0303131K: O&M	15.366	19.160	24.374	-	24.374	24.683	25.081	25.599	26.023	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 assessment reports; recommended revisions to the Joint Staff's Emergency Action Procedures (EAP-CJCS) Volumes VI and VII; updates to NC3 System Description

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

documents and Nuclear C3 Architecture Diagrams. In addition, performance of the NC3 System is directly measured by the operational assessments funded by this program element. These periodic assessments evaluate the connectivity used for the five functions of Nuclear command and control: Situation Monitoring, Planning, Decision Making, Force Execution, and Force Management. Performance of the SLC3S-Airborne fleet is measured by the technical assessment results documented in the assessment reports. Assessment results are used by the Joint Staff and the DoD CIO 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 2016 performance metrics and is on track to achieve the FY 2017 and FY 2018 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: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	17.628	2.432	Aug 2016	1.639	Aug 2017	-		-		-	Continuing	Continuing	Continuing
Systems Engineering 2	C/CPAF	Raytheon Company : Arlington, VA	32.258	3.342		-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering 3	C/CPFF	Pragmatics : McLean, VA	10.080	-		-		-		-		-	Continuing	Continuing	10.080
Systems Engineering 4	C/FP	Raytheon Company : Arlington, VA	7.808	1.503	Feb 2016	4.419	Feb 2017	5.200	Feb 2018	-		5.200	Continuing	Continuing	Continuing
Systems Engineering 5	C/CPFF	BAH : Falls Church, VA	4.273	-		-		-		-		-	Continuing	Continuing	4.273
Systems Engineering 6	C/CPFF	Harris Corporation : Melbourne, FL	2.500	-		-		-		-		-	Continuing	Continuing	2.500
Systems Engineering 7	C/CPAF	Carson Engineering : Bethesda, MD	-	1.056	Jun 2016	-		-		-		-	Continuing	Continuing	Continuing
System Engineering 8	C/FFP	MITRE Corp : McLean, VA	-	-		0.941	Sep 2017	1.332	Oct 2018	-		1.332	Continuing	Continuing	Continuing
System Engineering 9	C/FFP	JHU APL : Laurel, MD	-	-		-		2.500	Apr 2018	-		2.500	Continuing	Continuing	-
System Engineering 10	C/FFP	TBD - New Contract : TBD	-	-		-		1.342	Aug 2018	-		1.342	Continuing	Continuing	-
<b>Subtotal</b>			74.547	8.333		6.999		10.374		-		10.374	-	-	-
<b>Project Cost Totals</b>			74.547	8.333		6.999		10.374		-		10.374	-	-	-

**Remarks**



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>		<b>Date: May 2017</b>
<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 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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>NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)</i></b>	
NLCC Program Tracking Report	████████████████████
<b><i>Systems Analysis Documents</i></b>	
Systems Analysis Documents	████████████████████
<b><i>NLCC Reference Architecture (formally known as NC3 Reference Architecture)</i></b>	
NLCC Reference Architecture	████████████████████
<b><i>Operational Assessments</i></b>	
Operational Assessments	████████████████████
<b><i>NLCC Portfolio Roadmap</i></b>	
NLCC Portfolio Roadmap	████████████████████
<b><i>NLCC System Engineering and Integration</i></b>	
NLCC System Engineering and Integration	████████████████████
<b><i>NLCC Target Architecture</i></b>	
NLCC Target Architecture	

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b><i>NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)</i></b>	
NLCC Program Tracking Report	██
<b><i>Systems Analysis Documents</i></b>	
Systems Analysis Documents	██

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**Exhibit R-4, RDT&E Schedule Profile: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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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	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>NLCC Reference Architecture (formally known as NC3 Reference Architecture)</b>																												
NLCC Reference Architecture																												
<b>Operational Assessments</b>																												
Operational Assessments																												
<b>NLCC Portfolio Roadmap</b>																												
NLCC Portfolio Roadmap																												
<b>NLCC System Engineering and Integration</b>																												
NLCC System Engineering and Integration																												
<b>NLCC Target Architecture</b>																												
NLCC Target Architecture																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)</b>				
NLCC Program Tracking Report	1	2015	3	2022
<b>Systems Analysis Documents</b>				
Systems Analysis Documents	1	2015	4	2022
<b>NLCC Reference Architecture (formally known as NC3 Reference Architecture)</b>				
NLCC Reference Architecture	1	2015	4	2022
<b>Operational Assessments</b>				
Operational Assessments	1	2015	4	2022
<b>NLCC Portfolio Roadmap</b>				
NLCC Portfolio Roadmap	1	2015	1	2022
<b>NLCC System Engineering and Integration</b>				
NLCC System Engineering and Integration	1	2015	1	2022
<b>NLCC Target Architecture</b>				
NLCC Target Architecture	4	2017	3	2019

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0303150K / <i>Global Command and Control System</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	490.696	19.395	24.438	42.687	-	42.687	48.508	40.668	17.763	18.158	Continuing	Continuing
CC01: <i>Global Command and Control System-Joint (GCCS-J)</i>	490.696	19.395	24.438	42.687	-	42.687	48.508	40.668	17.763	18.158	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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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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 0303150K / <i>Global Command and Control System</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	21.503	24.438	19.554	-	19.554
Current President's Budget	19.395	24.438	42.687	-	42.687
Total Adjustments	-2.108	0.000	23.133	-	23.133
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-2.108	-	23.133	-	23.133

**Change Summary Explanation**

The increase of +\$23.133 in FY 2018 will facilitate modernization of the GCCS-J system from an application to a services based architecture based on an enterprise cloud-based solution. This increase is partially offset by a decrease of -\$0.640 is attributed to the Services Requirements Review Board (SRRB) contract reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
CC01: <i>Global Command and Control System-Joint (GCCS-J)</i>	490.696	19.395	24.438	42.687	-	42.687	48.508	40.668	17.763	18.158	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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Development and Strategic Planning	12.180	10.330	31.284
<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> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</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 2016 Accomplishments:</b> The GCCS-J program will continue to update and execute the GCCS-J Modernization planning guidance based on lessons learned, operational priorities, and updated DoD guidance. These updates will support the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities. Planned activities include the fielding of Global 6.0, completion of Agile Client Release 7(R7), and significant forward progress on development of the Data Virtualization Layer (DVL) Modernization Architecture in MilCloud.</p> <p><b>FY 2017 Plans:</b> The GCCS-J program will continue to update and execute the GCCS-J Modernization planning guidance based on lessons learned, operational priorities, and updated DoD guidance. These updates will support the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities. Planned activities include award of a Development and Modernization contract that will focus on transitioning the GCCS-J to an open standards architecture deployable in a variety of operational environments (i.e. local, cloud, mobile, etc). This effort will include development of GCCS-J capabilities to enhance functionality, implement new requirements, increase efficiency, and lower operating and deployment costs through the employment of new and emerging technologies.</p> <p>The decrease of -\$0.975 from FY 2016 to FY 2017 is the result of a reduction in performance benchmarking, information and knowledge engineering, custom application development, and product integration supporting GCCS-J Block V 6.0 development as it transitions into sustainment.</p> <p><b>FY 2018 Plans:</b> The GCCS-J program will continue to update and execute the GCCS-J Modernization planning guidance based on operational priorities, and updated DoD guidance. These updates will support the Joint C2 Analysis of Alternatives (AoA) goals of reducing cost, providing additional capability to the warfighter and sustaining existing C2 capabilities. Planned activities include further prototype, proof of concept and experimental efforts that will focus on transitioning GCCS-J to an open standards architecture deployable in a variety of operational environments (i.e. local, cloud, mobile, etc). This effort will include development of GCCS-J capabilities to enhance functionality, modernize and enhance the security posture of the application, increase efficiency, and lower operating and deployment costs through the employment of new and emerging technologies.</p>			



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>The increase of +\$20.954 from FY 2017 to FY 2018 is due to recapitalization of the modernization of GCCS-J into a cloud-based, enterprise system which DISA will use to provide C2 as a service throughout DoD, including the services.</p> <p><b>Title:</b> Joint Planning and Execution Services (JPES)</p> <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 2016 Accomplishments:</b> Continue improvements/expansion of JFW services providing additional data services to support integration with external systems, performance enhancements, reliability &amp; maintainability, backwards compatibility for legacy systems, and replacement for the legacy newsgroups service. Development of the modernized JOPES user tools will begin in FY16.</p> <p><b>FY 2017 Plans:</b> Continue improvements/expansion of JFW services providing enhanced system administration tools for monitoring and managing the JFW infrastructure, new data services in support of modernizing the JOPES user tools, support to legacy systems moving off of JOPES to the modernized JFW architecture, development of a business logic service and migration of JOPES legacy business logic into this new service.</p> <p>The increase of +\$3.910 from FY 2016 to FY 2017 is due to continued improvements/expansion of tools supporting JFW services that will allow the Joint Staff Support Center (JSSC) to increased functionality, including the ability to operate JFW independently and troubleshoot issues as they arrive.</p> <p><b>FY 2018 Plans:</b> Continue improvements/expansion of JFW services providing enhanced system administration tools for monitoring and managing the JFW infrastructure, new data services in support of modernizing the JOPES user tools, continued streamlining of ported legacy interfaces to JFW for support legacy systems moving off JOPES to the modernized JFW architecture.</p> <p>The decrease of -\$2.705 from FY 2017 to FY 2018 will slow the velocity of JPES solution and JFW impacting schedule. Part of the overall decrease (-\$0.640) is attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>	7.215	14.108	11.403
<b>Accomplishments/Planned Programs Subtotals</b>	19.395	24.438	42.687

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0303150K: <i>Operation &amp; Maintenance, Defense-Wide</i>	78.620	83.416	86.219	-	86.219	92.415	93.315	95.142	-	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Use of performance-based contract awards is maximized while use of Time and Material contracts is minimized to those providing programmatic support versus software development, integration, or testing. All development, integration, and migration efforts within the portfolio are primarily supported through Cost Reimbursable Task Orders issued under competitively awarded contracts. Acquisition Strategies are structured to retain contractors capable of satisfying cost, schedule, and performance objectives. Contract awards incorporate provisions requiring contractors to establish and manage specific earned value data. This strategy mitigates risk by requiring monthly Contract Performance Reviews (CPRs) and utilizing award fee contracts where appropriate to incentivize performance. Both GCCS-J and JPES apply formal acquisition rigor to include reporting requirements, as appropriate, by acquisition program designation.

**E. Performance Metrics**

Activity: Effectively communicate with external command and control systems

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

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

FY 2018 (Estimated): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces.

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

FY 2016 (Actual): Successful fielding of Agile Client Release 7 (R7)

FY 2017 (Estimated): Successful fielding of GCCS-J Global Release 6.0 to designated Critical Sites

FY 2018 (Estimated): Successful fielding of GCCS-J Global Release 6.X

Activity: Development of JOPES Modernization

FY 2016 (Actual): Successfully completed the development of JFW data services for US Marine Corps Core C2 System and USTRANSCOM's primary infrastructure supporting eight programs of record. Additionally JFW made performance enhancements improving its reliability & maintainability and incorporated backwards compatibility for legacy systems. A prototype replacement for the legacy newsgroups service was stood up for user test and feedback. FY16 Estimated: 100% replacement for the legacy newsgroups service. FY16 Estimated: 100%

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>FY 2017 (Estimated): Successfully complete improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services. FY 2017 Estimated: 50%</p> <p>FY 2018 (Estimated): Successfully complete improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services. FY 2018 Estimated: 50%</p> <p>Activity: Modernize GCCS-J infrastructure components to reduce overall costs (COTS &amp; HW), increase scalability and performance through shift to enterprise deployment. Reduce release cycles through agile development and deployment.</p> <p>FY 2016 (Actual): Successfully fielded Agile Client Release 7 (R7) FY16:100%</p> <p>FY 2017 (Estimated): Achieve Fielding Decision Review (FDR) for Agile Client Release 8 (R8). FY17 Estimated: 100%</p> <p>FY 2018 (Estimated): Achieve Fielding Decision Review (FDR) for Data Virtualization Layer Phase II. FY18 Estimated: 100%</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	C/CPFF	NGMS : Reston, VA	20.289	-		-		-		-		-	0.00	20.289	20.289
Product Development 2	FFRDC	MITRE : McLean, VA	7.077	-		-		-		-		-	0.00	7.077	7.077
Product Development 3	SS/FFP	Dynamic Systems : Los Angeles, CA	3.189	-		-		-		-		-	0.00	3.189	3.189
Product Development 4	C/CPFF	Pragmatics : McLean, VA	31.239	-		-		-		-		-	0.00	31.239	31.239
Product Development 6	C/CPIF	BAH : McLean, VA	3.369	-		-		-		-		-	0.00	3.369	3.369
Product Development 7	C/CPIF	JPES Framework : Various	19.554	-		-		-		-		-	0.00	19.554	19.554
Product Development 8	C/CPFF	RTB Development : Various	13.116	-		-		-		-		-	0.00	13.116	13.116
Product Development 9	C/CPFF	IGS Development : Various	12.398	-		-		-		-		-	0.00	12.398	12.398
Product Development 10	C/CPFF	SAIC : Falls Church, VA	4.826	-		-		-		-		-	0.00	4.826	4.826
Product Development 11	MIPR	SSC : San Diego, CA	13.317	-		-		-		-		-	0.00	13.317	13.317
Product Development 12	C/CPFF	NGMS : Reston, VA	67.014	-		-		-		-		-	0.00	67.014	67.014
Product Development 13	MIPR	NGIT : Various	1.772	-		-		-		-		-	0.00	1.772	1.772
Product Development 14	C/CPFF	NGMS : Reston, VA	72.817	6.656	Feb 2016	8.718	Feb 2017	-		-		-	Continuing	Continuing	Continuing
Product Development 15	C/CPIF	Booz Allen Hamilton : McLean, VA	3.283	-		-		-		-		-	0.00	3.283	3.283
Product Development 16	C/CPFF	Booz Allen Hamilton : Various	3.685	-		-		-		-		-	0.00	3.685	3.685
Product Development 17	C/CPAF	Booz Allen Hamilton : Falls Church, VA	1.229	-		-		-		-		-	0.00	1.229	1.229
Product Development 18	C/CPAF	AB Floyd : Alexandria, VA	12.477	-		-		-		-		-	0.00	12.477	12.477
Product Development 19	C/CPAF	Femme Comp Inc : Chantilly, VA	7.249	-		-		-		-		-	0.00	7.249	7.249

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 20	C/CPFF	SAIC : Falls Church, VA	5.876	-		-		-		-		-	0.00	5.876	5.876
Product Development 21	C/CPIF	Booz Allen Hamilton : McLean, VA	5.865	-		-		-		-		-	0.00	5.865	5.865
Product Development 22	MIPR	JDISS : Various	6.039	-		-		-		-		-	0.00	6.039	6.039
Product Development 23	C/FFP	NGMS : Reston, VA	4.790	-		-		-		-		-	0.00	4.790	4.790
Product Development 24	MIPR	SPAWAR : Charleston, SC	10.034	-		-		0.721	Sep 2018	-		0.721	0.00	10.755	10.755
Product Development 25	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS : Various	5.710	-		-		-		-		-	0.00	5.710	5.710
Product Development 26	C/CPAF	Tactical 3-D COP : Various	3.200	-		-		-		-		-	0.00	3.200	3.200
Product Development 27	SS/FFP	JITC : Various	20.400	-		-		-		-		-	0.00	20.400	20.400
Product Development 28	C/CPFF	TBD - JCRM : TBD	5.000	1.800	Apr 2016	1.800	Sep 2017	-		-		-	Continuing	Continuing	Continuing
Product Development 30	C/CPFF	TBD : TBD	4.422	1.000	Sep 2016	5.208	Sep 2017	4.400	Sep 2018	-		4.400	Continuing	Continuing	Continuing
Product Development 31	C/TBD	TBD : TBD	3.798	1.569	Apr 2016	-		-		-		-	Continuing	Continuing	Continuing
Product Development 32	C/CPFF	TBD : TBD	-	-		-		10.500	Feb 2018	-		10.500	Continuing	Continuing	Continuing
Product Development 33	C/TBD	TBD : TBD	4.673	-		-		-		-		-	0.00	4.673	4.673
Engineering Services and Integration 29	SS/FFP	TBD : Various	6.782	-		-		-		-		-	0.00	6.782	6.782
I3 Engineering Services & SW Development	C/TBD	NGIT : Various	1.811	-		-		-		-		-	0.00	1.811	1.811
Product Development 29	TBD	JPES modernization : TBD	2.043	2.400	Sep 2016	5.805	Oct 2016	-		-		-	Continuing	Continuing	Continuing
Product Development 34	C/CPFF	TBD : TBD - JPES	0.000	-		-		7.400	Jan 2018	-		7.400	Continuing	Continuing	Continuing
Product Development	C/CPFF	TBD : TBD - GCCS-J	0.000	-		-		17.566	Feb 2018	-		17.566	Continuing	Continuing	Continuing
<b>Subtotal</b>			388.343	13.425		21.531		40.587		-		40.587	-	-	-

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Support 1	C/T&M	Oracle : Various	1.003	-		-		-		-		-	0.00	1.003	1.003
Support 2	C/CPFF	JC2 Common Interface : Various	4.808	-		-		-		-		-	0.00	4.808	4.808
Support Costs - Engineering Support 3	FFRDC	MITRE : Various	0.754	-		-		-		-		-	0.00	0.754	0.754
Support Costs - Engineering Support 4	C/CPFF	Pragmatics : McLean, VA	3.799	-		-		-		-		-	0.00	3.799	3.799
Support Costs - Engineering Support 5	C/CPFF	IPA : College Park, MD	0.283	-		-		-		-		-	0.00	0.283	0.283
Support Cost 6	C/FFP	STA : Falls Church, VA	2.772	-		-		-		-		-	0.00	2.772	2.772
Support Costs	C/CPFF	TBD : TBD	3.700	-		0.857	Sep 2017	-		-		-	0.00	4.557	4.557
Support Cost 7	TBD	Pragmatics : McLean, VA	0.064	3.500	Sep 2016	-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			17.183	3.500		0.857		-		-		-	-	-	-

<b>Test and Evaluation (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	-		-		-		-		-	0.00	0.744	0.744
Test & Evaluation 2	MIPR	JITC : Ft. Huachuca, AZ	28.365	1.200	Sep 2015	1.500	Sep 2017	1.500	Sep 2018	-		1.500	Continuing	Continuing	Continuing
Test & Evaluation 3	MIPR	DIA : Various	8.224	0.800	Jun 2016	0.080	Jun 2017	-		-		-	Continuing	Continuing	Continuing
Test & Evaluation 4	MIPR	DAA : Various	2.812	0.470	Jun 2016	0.470	Jun 2017	0.600	Sep 2018	-		0.600	Continuing	Continuing	Continuing
Test & Evaluation 5	C/CPFF	SAIC : Falls Church, VA	9.681	-		-		-		-		-	0.00	9.681	9.681
Test & Evaluation 6	C/CPAF	SAIC : Falls Church, VA	23.133	-		-		-		-		-	0.00	23.133	23.133

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**Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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	C/CPFF	Pragmatics : McLean, VA	0.308	-		-		-		-		-	0.00	0.308	0.308
Test & Evaluation 8	MIPR	JITC : Various	0.005	-		-		-		-		-	0.00	0.005	0.005
Test & Evaluation 9	MIPR	JITC : Various	0.897	-		-		-		-		-	0.00	0.897	0.897
Test & Evaluation 10	MIPR	DISA FSO : Various	1.059	-		-		-		-		-	0.00	1.059	1.059
Test & Evaluation 11	MIPR	TEMC Test Support : Various	0.229	-		-		-		-		-	0.00	0.229	0.229
Test & Evaluation 12	MIPR	DISA TEMC : Falls Church, VA	0.971	-		-		-		-		-	0.00	0.971	0.971
Test & Evaluation 13	MIPR	STRATCOM : Offut, NE	1.155	-		-		-		-		-	0.00	1.155	1.155
Test & Evaluation 14	MIPR	DISA FSO : Falls Church, VA	1.200	-		-		-		-		-	0.00	1.200	1.200
Test & Evaluation 15	C/CPFF	TQI : Falls Church, VA	1.698	-		-		-		-		-	0.00	1.698	1.698
Test & Evaluation 16	C/CPFF	TQI : Falls Church, VA	0.494	-		-		-		-		-	0.00	0.494	0.494
Test & Evaluation 17	MIPR	Slidell : Various	0.436	-		-		-		-		-	0.00	0.436	0.436
<b>Subtotal</b>			81.411	2.470		2.050		2.100		-		2.100	-	-	-

<b>Management Services (\$ in Millions)</b>				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	MIPR	SSC Atlantic : Charleston, SC	3.759	-		-		-		-		-	0.00	3.759	3.759
<b>Subtotal</b>			3.759	-		-		-		-		-	0.000	3.759	3.759

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Defense Information Systems Agency</b>								<b>Date: May 2017</b>					
<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 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	490.696	19.395		24.438		42.687		-		42.687	-	-	-

**Remarks**



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>							<b>Date: May 2017</b>				
<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 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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																												
Integration and Test																												

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Development and Strategic Planning																												
Integration and Test																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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	2015	4	2022
Integration and Test	1	2015	4	2022

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0303153K / <i>Defense Spectrum Organization</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	152.272	19.307	13.197	8.750	-	8.750	9.073	9.128	9.352	9.574	Continuing	Continuing
JS1: <i>Joint Spectrum Center</i>	152.272	19.307	13.197	8.750	-	8.750	9.073	9.128	9.352	9.574	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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	20.298	13.197	9.539	-	9.539
Current President's Budget	19.307	13.197	8.750	-	8.750
Total Adjustments	-0.991	0.000	-0.789	-	-0.789
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.991	-	-0.789	-	-0.789

**Change Summary Explanation**

The decrease of -\$0.789 in FY 2018 is attributable to a reduced number of Hazards of Electromagnetic Radiation to Ordnance (HERO) surveys in support of forward deployed forces, number of ordnance susceptibility information updates and acquisition program reviews. Part of the overall decrease (-\$0.328) is attributed to the Service Requirements Review Board (SSRB) contract reduction.

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
<i>JS1: Joint Spectrum Center</i>	152.272	19.307	13.197	8.750	-	8.750	9.073	9.128	9.352	9.574	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Joint Spectrum Center (JSC), which is a division of Defense Spectrum Organization (DSO), designs, develops, and maintains Department of Defense (DoD) automated spectrum management systems, evaluation tools, and databases. The databases are the prime sources of information for DoD use of the electromagnetic (EM) spectrum. The JSC provides technical measurement and analysis in support of DoD spectrum policy decisions to ensure the development, acquisition, and operational deployment of systems are compatible with other spectrum dependent systems operating within the same EM environment (EME). Additional efforts focus on improving future warfighter EM spectrum utilization through technological innovation, and influencing research and development emerging technology efforts.

Improved spectrum support includes the Global Electromagnetic Spectrum Information System (GEMSIS), a net centric capability that will provide commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations.

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

	FY 2016	FY 2017	FY 2018
<b>Title:</b> Advanced Spectrum Tools	0.883	0.883	0.883
<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 2016 Accomplishments:</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><b>FY 2017 Plans:</b> Enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools.</p> <p><b>FY 2018 Plans:</b></p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools.			
<p><b>Title:</b> DoD Electromagnetic Environmental Effects (E3) Program</p> <p><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 of the Joint Ordnance E3 Risk Assessment Database (JOERAD) and Hazards of Electromagnetic Radiation to Ordnance (HERO) electromagnetic environmental effects surveys in support of the COCOMs and Joint Task Forces. JOERAD develops algorithms and provides analytical capabilities to perform real-time risk assessments to evaluate platform/system safety and identify equipment limitations in the operational EM environment. JOERAD enables operators to make critical decisions about the hazards associated with the use of ordnance within complex EM environments. A SSRA is performed by program managers and materiel developers on all programs that are acquiring or incorporating spectrum-dependent systems or equipment per DoDI 4650.1. These assessments encompassed regulatory, technical, and operational spectrum and E3 issues and associated risks.</p> <p><b>FY 2016 Accomplishments:</b> Will convert the JOERAD to a web-enabled application compliant with the Standard Spectrum Resource Format. Will conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance RF safety requirements. Will update MIL-HDBK-235, "EME Profiles" and develop EME profiles to address blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 Integrated Product Team (IPT) Meetings. Will provide technical support to DoD CIO, the Joint Staff, and other DoD Components on E3, spectrum, hazards of EM radiation matters. Will review JCIDS and ISP acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University.</p> <p><b>FY 2017 Plans:</b> N/A</p> <p>The decrease of -\$4.009 from FY 2016 to FY 2017 is due to the elimination of the DoD E3 program. Hazards of HERO surveys will be eliminated for Forward Deployed Forces, Ordnance susceptibility information will not be updated, and acquisition program reviews will cease. DSO will no longer develop spectrum management techniques for emerging spectrum technologies.</p> <p><b>FY 2018 Plans:</b></p>	4.009	0.000	3.315

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>Will continue to conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/ Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance RF safety requirements. Will update MIL-HDBK-235, "EME Profiles" and develop EME profiles to address blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 Integrated Product Team (IPT) Meetings. Will provide technical support to DoD CIO, the Joint Staff, and other DoD Components on E3, spectrum, hazards of EM radiation matters. Will review JCIDS and ISP acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University.</p> <p>The increase of +\$3.315 from FY 2017 to FY 2018 supports additional HERO surveys for Forward Deployed Forces, Ordnance susceptibility updates, and acquisition program E3 reviews and guidance.</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 2016 Accomplishments:</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><b>FY 2017 Plans:</b> Will continue collaboration efforts with the Science and Technology community (including ASDR&amp;E, Service Labs and DARPA) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations</p>	3.318	3.251	3.715

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Continue to develop initiatives that include the roadmap, standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations.</p> <p>The decrease of -\$0.067 from FY 2016 to FY 2017 will slightly reduce collaboration efforts with Science and Technology communities in developing spectrum technology roadmaps.</p> <p><b>FY 2018 Plans:</b> Will continue collaboration efforts with the Science and Technology community (including ASDR&amp;E, Service Labs and DARPA) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Continue to develop initiatives that include the roadmap, standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations.</p> <p>The increase of +\$0.464 from FY 2017 to FY 2018 will begin examination and impact assessments of the most mature portions of the SAR&amp;DP, STR, and AWS-3 SSTD efforts. Produce specific algorithmic and technique changes associated with specific tools and techniques in current use. Prototype implementations to verify viability and collect metrics on improvements.</p>				
<p><b>Title:</b> Global Electromagnetic Spectrum Information System (GEMSIS)</p> <p><b>Description:</b> The GEMSIS is a net centric capability that will provide operational commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations.</p> <p><b>FY 2016 Accomplishments:</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, SXXI, End to End Spectrum Supportability (E2ESS), and Coalition Joint Spectrum Management Tool (CJSMPT). Will improve/enhance user interface and deliver the Spectrum dashboard to enable quick access to information and capabilities. Integration efforts will include implementation of E2ESS (Host Nation Spectrum Worldwide Database Online (HNSWDO) and Stepstone capabilities combined),</p>		11.097	9.063	0.837

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
SXXI, JSDR, and CJSMPPT maintenance and version releases and other enterprise service integration into the Integrated Spectrum Desktop.			
<b><i>FY 2017 Plans:</i></b> Continue efforts to enhance the Integrated Spectrum Desktop capabilities and improve the JSDR, SXXI, E2ESS, and CJSMPPT to improve user interface within ISD. Integration efforts will continue with E2ESS, SXXI, JSDR, and CJSMPPT maintenance and version releases into the ISD.			
The decrease of -\$2.629 from FY 2016 to FY 2017 returns program to planned funding levels to support the development of the backward capable frequency assignment capability through the integration of SXXI and SXXI Legacy.			
<b><i>FY 2018 Plans:</i></b> Continue SXXI Legacy, E2ESS, and JSDR maintenance and version releases.			
The decrease of -\$7.898 in FY 2018 is due to completion of Increment 2 development efforts. Part of the overall decrease (-\$0.328) is attributed to the Service Requirements Review Board (SSRB) contract reduction.			
<b>Accomplishments/Planned Programs Subtotals</b>	19.307	13.197	8.750

<b>C. Other Program Funding Summary (\$ in Millions)</b>										
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To Complete</u>
• O&M, DW/PE 0303153K: O&M, DW	33.135	33.014	36.408	-	36.408	35.707	36.072	36.067	-	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. GEMSIS' acquisition approach is to obtain capabilities by adopting existing capabilities, buying commercial products, or developing new capabilities by delivering incrementally within the context of a streamlined and adaptive acquisition approach.

**E. Performance Metrics**

1. Provide engineering support to DoD Components to ensure E3 and spectrum supportability requirements are addressed during the acquisition life-cycle meeting at least 90% of program suspenses.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>
<p>2. Execute effective emerging spectrum technologies evaluation process that generates timely and relevant products evaluating at least 3 technologies per quarter.</p> <p>3. Provide technical E3 and spectrum engineering support upon request from the Combatant Commands, their components and the Military Services with a minimum 98% response rate.</p> <p>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.</p> <p>All metric results are classified.</p>		

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	248.666	0.426	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
T57: <i>Net-Centric Enterprise Services (NCES)</i>	248.666	0.426	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.444	0.000	0.000	-	0.000
Current President's Budget	0.426	0.000	0.000	-	0.000
Total Adjustments	-0.018	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.018	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
T57: <i>Net-Centric Enterprise Services (NCES)</i>	248.666	0.426	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The 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> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p><b>Title:</b> Test and Evaluation</p> <p><b>FY 2016 Accomplishments:</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 completing the development, transition, and testing of the replacement Defense Enterprise Collaboration service.</p> <p><b>FY 2017 Plans:</b> N/A</p> <p>The decrease of -\$0.426 from FY 2016 to FY 2017 is attributed to the reduction of contractor support due to the completion of Defense Enterprise Collaboration operational test and evaluation requirements.</p>	0.426	0.000	-
<b>Accomplishments/Planned Programs Subtotals</b>	0.426	0.000	-

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/PE	91.033	36.400	38.074	-	38.074	37.734	38.110	38.857	-	Continuing	Continuing
0303170K: O&M, DW											
• Procurement, DW/PE	1.819	1.793	1.820	-	1.820	1.828	1.844	1.881	-	Continuing	Continuing
0303170K: Procurement, DW											

**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

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>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:</p> <ul style="list-style-type: none"> <li>• Satisfy time-urgent needs of the warfighter or theater commander</li> <li>• Provide early and continual involvement of the user</li> <li>• Evaluate the portfolio to determine optimum funding approach to rapidly deploy urgently needed services within the funding profile</li> <li>• Effective control processes that lower cost and maintains schedule</li> <li>• Provide multiple, rapidly executed increments or releases of capability</li> <li>• Early dialogue between the requirements and acquisition communities to expedite technical, programmatic, and financial solutions</li> <li>• Enable “insight” not “oversight” to identify and resolve problems early and ensure both the acquisition process and deployed service meets performance goals</li> <li>• Enable agility in selecting modular, open-systems approach</li> </ul> <p>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.</p> <p><b>E. Performance Metrics</b></p> <p>E. Performance Metrics</p> <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>FY2016 (Actual): Identified mission needs and candidate local services that cross Service and Combatant Command boundaries for their potential to transition into the enterprise infrastructure and the expanding portfolio. FY17: N/A</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>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>FY2016 (Actual): Evaluated Service-centric applications and technologies transitioning into the Joint Information Environment to identify candidates to “jump start” as potential enterprise services that can support other Services with similar mission needs. FY17: N/A</p> <p>Activity:</p> <ul style="list-style-type: none"> <li>• Enterprise Service Availability</li> </ul> <p>Operational testing of modernized services or updated technologies into existing services validate that the validated customer requirement of <math>\geq .997</math> 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.</p> <p>Expected Outcome:</p> <p>FY2016 (Actual): Operational requirement met by all enterprise services. Supported the customer perspective that the services support mission effectiveness and is relevant to evolving mission needs. FY17: N/A</p> <p>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.</p>		

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303228K <i>Joint Information Environment</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	2.789	4.689	-	4.689	2.854	2.839	2.909	2.975	Continuing	Continuing
JE1: <i>Joint Regional Security Stacks</i>	0.000	0.000	2.789	4.689	-	4.689	2.854	2.839	2.909	2.975	Continuing	Continuing

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

The Joint Information Environment (JIE) construct is a consolidated secure and defensible environment across DoD. This is comprised of unified, consolidated and shared information technology (IT) infrastructure, enterprise services, and standardized security architectures throughout the Department of Defense Information Network (DODIN) to achieve full spectrum superiority, improve mission effectiveness, increase security and realize IT efficiencies.

The target objective state of JIE is a DODIN that optimizes the use of DoD's IT assets from the administrative and operational planning at the Pentagon to the tactical edge; to include our mission partners through converging communications, computing, enterprise services, and defense of the DODIN that can be leveraged for all Department missions.

When implemented, JIE will reduce DoD's Total Cost of Ownership (TCO), improved security by reducing the attack surface of our networks, and enable Combatant Commands/Services/Agencies (CC/S/A) to more efficiently access information to perform their missions from any authorized IT device, any time, from anywhere in the world.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.000	2.789	2.976	-	2.976
Current President's Budget	0.000	2.789	4.689	-	4.689
Total Adjustments	0.000	0.000	1.713	-	1.713
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-	-	1.713	-	1.713

**Change Summary Explanation**

An increase of +\$1.820 in FY 2018 will support testing of additional enhancements to JRSS 2.0 capabilities for Break and Inspect, SIPR and Inline Intrusion Prevention System. This increase is partially offset by a decrease of (-\$0.107) is attributed to the Service Requirements Review Board (SSRB) contract reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0303228K / Joint Information Environment				<b>Project (Number/Name)</b> JE1 / Joint Regional Security Stacks			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
JE1: Joint Regional Security Stacks	0.000	0.000	2.789	4.689	-	4.689	2.854	2.839	2.909	2.975	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The Joint Regional Security Stack (JRSS) is a joint DoD security architecture deployed regionally throughout the world. Each of the 23 NIPR and 25 SIPR stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment. The JRSS Management System (JMS) is the management and operational control suite/capability for the JRSS. While the JMS is treated as a related effort, it requires its own experience and evaluation strategy as the JMS is a selection of best of breed capabilities. The JMS is a system-of-systems designed to centralize and enhance the management of the JRSS components and achieve economies of scale by using DoD common suites/infrastructure. The savings are realized by coupling the JRSS and JMS. The JRSS collapses replicated IT security functionality for all Department of Defense (DoD) components into relatively few regionally located stacks. The JMS provides Centralized Network Management of the JRSS with a standard interoperable set of capabilities across DoD. JMS provides visibility and control over network transport and associated security systems. It enables monitoring and analysis of relevant fault and performance data to determine the impact on current operations and trend analysis. This centralized capability allows standardization of policies, procedures and configurations of critical network transport assets. The JMS enables DoD Components to maintain Title 10 required management and visibility of their IT security while providing high level visibility to CYBERCOM. Cyber Operations can take proactive actions to ensure the uninterrupted availability and protection of system and network information.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Joint Regional Security Stacks	0.000	2.789	4.689
<b>Description:</b> The Joint Regional Security Stack (JRSS) is a joint DoD security architecture deployed regionally throughout the world. Each of the 23 NIPR and 25 SIPR stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment.			
<b>FY 2016 Accomplishments:</b> N/A			
<b>FY 2017 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / <i>Joint Information Environment</i>	<b>Project (Number/Name)</b> JE1 / <i>Joint Regional Security Stacks</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>Will perform integration and testing of the pre-production capabilities for planned enhancements to JRSS 1.5. These efforts will lead into the initial testing of the production units. Will also provide systems engineering and testing support to integrate capabilities into the existing JRSS.</p> <p>The increase of +\$2.789 from FY 2016 to FY 2017 will provide test and evaluation activities for enhancement to JRSS 1.5 capabilities to better synch with planned 1.5 tech refresh.</p> <p><b>FY 2018 Plans:</b> Provide integration, testing and development of next-generation JRSS 2.0 capabilities that will provide even greater situational awareness for the cyber operator.</p> <p>The increase of +\$2.007 from FY 2017 to FY 2018 is to support testing and Analytic development for medium complexity use cases and widget/application development. This increase is partially offset by a decrease of -\$0.107 attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	2.789	4.689

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

N/A

**Remarks**

N/A

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

The Joint Regional Security Stack (JRSS) is a joint DoD security architecture deployed regionally throughout the world. Each of the 23 NIPR and 25 SIPR stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment. The JRSS Management System (JMS) is the management and operational control suite/capability for the JRSS. While the JMS is treated as a related effort, it requires its own experience and evaluation strategy as the JMS is a selection of best of breed capabilities. The JMS is a system-of-systems designed to centralize and enhance the management of the JRSS components and achieve economies of scale by using DoD common suites/infrastructure. The JMS provides Centralized Network Management of the JRSS with a standard interoperable set of capabilities across DoD. JMS provides visibility and control over network transport and associated security systems. It enables monitoring and analysis of relevant fault and performance data to determine the impact on current operations and trend analysis. This centralized capability allows standardization of policies, procedures and configurations of critical network

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303228K / <i>Joint Information Environment</i>	<b>Project (Number/Name)</b> JE1 / <i>Joint Regional Security Stacks</i>
<p>transport assets. The JMS enables DoD Components to maintain Title 10 required management and visibility of their IT security while providing high level visibility to CYBERCOM. Cyber Operations can take proactive actions to ensure the uninterrupted availability and protection of system and network information.</p> <p>FY 2016 (Estimated): N/A</p> <p>FY 2017 (Estimated): 100% successful testing of new pre-production capabilities for Full Packet Capture analytics (e.g. ArcSight and Splunk log); JMS 1.5 data orchestrator aggregation; and JRSS 1.5 active stack capabilities through the Joint Interoperability Test Command.</p> <p>FY 2018 Target: 100% successful testing of Break &amp; Inspect SIPR capabilities and Inline Intrusion Prevention Systems (IPCS) in the development environment as well as testing of 6 medium complexity analytics.</p>		

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0303430K / Federal Investigative Services Information Technology
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	75.000	50.000	-	50.000	10.280	10.000	10.000	10.250	Continuing	Continuing
KA1: Federal Investigative Services Information Technology	0.000	0.000	75.000	50.000	-	50.000	10.280	10.000	10.000	10.250	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

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

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

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	0.000	75.000	50.000	-	50.000
Current President's Budget	0.000	75.000	50.000	-	50.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

No change statement required.

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

	FY 2016	FY 2017	FY 2018
<b>Title:</b> Background Investigation Information Technology Systems	-	75.000	50.000
<b>Description:</b> Implements the decision by the Interagency Deputies Committee and the Office of Management and Budget (OMB) to transfer responsibility for the development and sustainment of new Federal Government background investigation information technology (IT) system(s) from the OPM to the DoD beginning in FY 2017.			

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0303430K / <i>Federal Investigative Services Information Technology</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p><b><i>FY 2017 Plans:</i></b>                      DoD will design, build and field a new Federal Government background investigation information technology system. The new system will defend against cyber attacks and improve defensibility. DoD will work and consult with the OMB, DNI and the OPM. This new system will provide a service to the whole federal government, not just DoD.</p> <p>An increase of +\$75.000 was received reflecting transfer of responsibility for development of a new IT Background Investigation Information Technology (IT) System(s) from the Office of Personnel Management (OPM) to the DoD.</p> <p><b><i>FY 2018 Plans:</i></b>                      DoD will continue to design, build and field a new Federal Government background investigation information technology system. The new system will defend against cyber attacks and improve defensibility. DoD will work and consult with the OMB, DNI and the OPM. This new system will provide a service to the whole federal government, not just DoD.</p> <p>The decrease of -\$25.000 from FY 2017 to FY 2018 is due to the completion of initial advanced development capabilities and the planned transition to sustainment of initial capabilities delivered in FY 2017. Advanced development capabilities prototyped in FY 2017 included (not limited to): Case Management, Imaging, Workflow Management, Virtual System Access, Automated Records Check, and E-Application. These advanced capabilities will reduce overall program and technical risk with respect to delivery of the new National Background Investigation System.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	-	75.000	50.000

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0303430K, O&M: <i>Background Investigation Information Technology Systems</i>	-	20.000	50.000	-	50.000	150.000	120.000	120.000	-	Continuing	Continuing

**Remarks**

**E. Acquisition Strategy**  
 Program office is in the process of developing an effective acquisition strategy.

**F. Performance Metrics**  
 Program office is in the process of developing performance metrics



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: FY 2018 Defense Information Systems Agency</b>		<b>Date: May 2017</b>
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430K / <i>Federal Investigative Services Information Technology</i>	<b>Project (Number/Name)</b> KA1 / <i>Federal Investigative Services Information Technology</i>

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>TBD</i>																												
TBD																												



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**Exhibit R-4A, RDT&E Schedule Details:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0303430K / <i>Federal Investigative Services Information Technology</i>	<b>Project (Number/Name)</b> KA1 / <i>Federal Investigative Services Information Technology</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>TBD</i>				
TBD	1	2017	1	2021

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 0303610K / <i>Teleport Program</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	43.688	1.665	0.657	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
NS01: <i>Teleport Generation 1/2</i>	41.675	0.434	0.657	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
NS02: <i>Teleport Generation 3</i>	2.013	1.231	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

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

Department of Defense (DoD) Teleport system is a satellite communications (SATCOM) gateway that links the deployed warfighter to the Global Information Grid. The DoD Teleport program has fielded system capabilities incrementally using a multi-generational approach with Generation 1 and 2 Full Deployment authorized by DoD Chief Information Officer on February 18, 2011. DoD Teleport Generation 3 consists of three phases; Phases 1 and 2 are in Production and Deployment while Phase 3 is in Engineering and Manufacturing Development. Each DoD Teleport investment increases the warfighter's ability to communicate with a world-wide, net-centric set of information capabilities, which is vital for the DoD to maintain a persistent presence among its adversaries.

Currently, the Teleport system operates as an upgrade of SATCOM capabilities at selected DoD SATCOM gateways. This system provides deployed warfighters with seamless worldwide multi-band SATCOM connectivity to the Defense Information System Network (DISN) Service Delivery Nodes and legacy tactical command, control, communications, computers, and intelligence systems. It also provides centralized integration capabilities, contingency capacity, and common interfaces to access the DISN.

DoD Teleport's goal is to provide secure, seamless, interoperable, and economical upgrades to DoD SATCOM Gateways and meet the growing throughput requirements of the deployed warfighter.

The primary beneficiaries of the DoD Teleport investment are the DoD Combatant Commanders, Military Departments, Defense Agencies, and the warfighter. DoD Teleport Generation 3 is designed to meet the growing demands of the warfighter through the execution of the following phases:

Phase 1: Gateway Advanced Extremely High Frequency [Extended Data Rate] terminals provides tactical users with a 350% bandwidth increase in survivable, antijam communications through all peacetime and combat operations by installing Navy Multiband Terminals (NMT) at select Teleport sites. In addition to enhanced throughput, the NMT maintains compatibility with legacy waveforms and current tactical terminals.

Phase 2: Gateway Wideband Global SATCOM X/Ka-band terminals provide enhanced Wideband Global System (WGS) X/Ka capability to warfighters worldwide by installing terminals from the Modernization of Enterprise Terminal (MET) program at DoD Teleport and other gateway sites. This gateway enhancement allows Teleport to replace end-of-life Defense Satellite Communications System (DSCS) terminals while remaining interoperable with tactical WGS X/Ka-band users. The MET enhancement provides a 300% Ka-band capacity increase and an 1100% X-band capacity increase to current enterprise terminal X/Ka capabilities. Additionally, it

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	1.736	0.657	0.000	-	0.000
Current President's Budget	1.665	0.657	0.000	-	0.000
Total Adjustments	-0.071	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.071	-	0.000	-	0.000

**Change Summary Explanation**

The decrease of -\$0.657 in FY 2018 is attributed to the funding be moved to a new program element for Teleport.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NS01: <i>Teleport Generation 1/2</i>	41.675	0.434	0.657	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

The 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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Teleport Program	0.434	0.657	0.000
<b>FY 2016 Accomplishments:</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.			
<b>FY 2017 Plans:</b> Funding will be used to support the Joint Interoperability Certification of the DoD Teleport System.			
The increase of +\$0.223 from FY 2016 to FY 2017 is attributed to an increase in contract labor for interoperability certification testing. The Teleport system supports multiple baseband security enclaves for both defense and civil authorities.			
<b>FY 2018 Plans:</b> The decrease of -\$0.657 from FY 2017 to FY 2018 is attributed to the funding be moved to a new program element for Teleport.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.434	0.657	0.000

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

<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• O&M, DW/ PE0303610K: O&M, DW	3.140	3.275	3.498	-	3.498	3.828	3.846	3.913	10.986	Continuing	Continuing

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• Procurement, DW/ PE0303610K: <i>Procurement, DW</i>	7.740	20.291	20.927	-	20.927	21.387	21.582	22.012	22.408	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The Teleport Program Office (TPO) uses the DoD preferred evolutionary acquisition approach to acquire Commercial off the Shelf (COTS) and modified COTS equipment when possible. The three TPO procuring agencies, Program Manager Defense Communications and Army Transmission Systems, the Space and Naval Warfare Systems Command, and Defense Information Technology Contracting Organization (DITCO) provide direct contracting support. Assistance from other Departments including Army, Navy, and Air Force is acquired via Military Interdepartmental Purchase Request for both organic and contracted support. The TPO maximizes the use of performance-based contracts and requires contractors to establish and manage specific earned value data to mitigate risk and monitor deviations from cost, schedule, and performance objectives. Performance is evaluated thorough post-award contract reviews, performance assessment during quarterly program reviews. The MLGC program will use various contract types to employ the vendor best suited to deliver the program’s capabilities to the warfighter.

**E. Performance Metrics**

Teleport Cost and Schedule Performance Metrics:

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

Teleport Program Metrics:

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

Performance metrics have been established in four measurement areas: 1) customer results, 2) mission and business results, 3) processes and activities, and 4) technology. Specific measurement indicators and units of measure vary by measurement area, and metrics in each of the aforementioned areas are measured annually. Teleport will use the same measurement areas for performance metrics in FY 2016, FY 2017 and FY 2018.

Generation 1/2 Metric:

Percentage of system changes resulting in interoperability certification

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

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

FY 2016 Actual: 100%  
FY 2017 Target: 100%

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
NS02: <i>Teleport Generation 3</i>	2.013	1.231	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Project MDAP/MAIS Code:** N81

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

The Teleport program will implement an integrated test approach that will combine the objectives from multiple testing disciplines (e.g., developmental test, operational test, interoperability, and information assurance) throughout the testing lifecycle to support needed system evaluations. The Teleport program executes its own test events to achieve this integrated approach, but will partner with each phase's respective program office generated test activities to leverage the data needed to satisfy Teleport program test objectives. An approach summary for Teleport Generation 3 follows:

Generation 3: Funding will be used to execute Pre-Milestone C documentation preparation and acquisition activities for Generation 3 Phase 3.

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

	FY 2016	FY 2017	FY 2018
<b>Title:</b> Teleport Program	1.231	0.000	0.000
<b>Description:</b> Generation 3: Funding will be used to execute Pre-Milestone C documentation preparation and acquisition activities for Generation 3 Phase 3.			
<b>FY 2016 Accomplishments:</b> Will conduct operational testing and evaluations on the DoD Teleport Generation 3 Phase 3 implementation.			
<b>FY 2017 Plans:</b> N/A			
The decrease of -\$1.231 from FY 2016 to FY 2017 is due to the completion of Generation 3 operational test and evaluation requirements (specifically contract labor and associated lab support).			
<b>FY 2018 Plans:</b> N/A			
<b>Accomplishments/Planned Programs Subtotals</b>	1.231	0.000	0.000



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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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)**

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/ PE0303610K: <i>O&amp;M, DW</i>	6.962	6.107	6.680	-	6.680	6.898	6.991	7.135	-	Continuing	Continuing
• Procurement, DW/ PE0303610K: <i>Procurement, DW</i>	25.034	7.706	1.887	-	1.887	0.000	0.000	0.000	-	Continuing	Continuing
• MILCON, DW/ PE0303610K: <i>MILCON, DW</i>	-	-	-	-	-	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

The Teleport Program Office (TPO) uses the DoD preferred evolutionary acquisition approach to acquire Commercial off the Shelf (COTS) and modified COTS equipment when possible. The three TPO procuring agencies, Program Manager Defense Communications and Army Transmission Systems, the Space and Naval Warfare Systems Command, and Defense Information Technology Contracting Organization (DITCO) provide direct contracting support. Assistance from other Departments including Army, Navy, and Air Force is acquired via Military Interdepartmental Purchase Request for both organic and contracted support. The TPO maximizes the use of performance-based contracts and requires contractors to establish and manage specific earned value data to mitigate risk and monitor deviations from cost, schedule, and performance objectives. Performance is evaluated thorough post-award contract reviews, performance assessment during quarterly program reviews. The MLGC program will use various contract types to employ the vendor best suited to deliver the program’s capabilities to the warfighter.

**E. Performance Metrics**

Generation 3 Cost and Schedule Performance Metrics:

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

Generation 3 Program Metrics:

RDT&E funds will be used to perform acquisition testing.

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

Number of G3P3 Operational Test Events

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

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

FY 2016: 1 Planned/1 Required  
FY 2017: N/A  
FY 2018: N/A



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**Exhibit R-4, RDT&E Schedule Profile: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

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

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**Exhibit R-4A, RDT&E Schedule Details:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<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	1	2015	2	2016

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	14.086	2.881	1.553	1.686	-	1.686	1.862	1.846	1.918	1.936	Continuing	Continuing
XXX: <i>Cybersecurity Initiative</i>	14.086	2.881	1.553	1.686	-	1.686	1.862	1.846	1.918	1.936	Continuing	Continuing

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

Classified

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

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>
Previous President's Budget	2.976	1.553	1.749	-	1.749
Current President's Budget	2.881	1.553	1.686	-	1.686
Total Adjustments	-0.095	0.000	-0.063	-	-0.063
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	-0.095	-	-0.063	-	-0.063

**Change Summary Explanation**

Classified

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 0305103K / Cybersecurity Initiative				Project (Number/Name) XXX / Cybersecurity Initiative			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
XXX: <i>Cybersecurity Initiative</i>	14.086	2.881	1.553	1.686	-	1.686	1.862	1.846	1.918	1.936	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Classified

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

	FY 2016	FY 2017	FY 2018
<b>Title:</b> Cyber Security Range	2.881	1.553	1.686
<b>FY 2016 Accomplishments:</b> NA			
<b>FY 2017 Plans:</b> Classified			
<b>FY 2018 Plans:</b> Classified			
<b>Accomplishments/Planned Programs Subtotals</b>	2.881	1.553	1.686

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Classified



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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	46.899	3.239	3.030	3.049	-	3.049	3.056	3.073	3.142	3.224	Continuing	Continuing
NF1: <i>Distributed Common Ground/Surface Systems</i>	46.899	3.239	3.030	3.049	-	3.049	3.056	3.073	3.142	3.224	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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	3.239	3.030	3.323	-	3.323
Current President's Budget	3.239	3.030	3.049	-	3.049
Total Adjustments	0.000	0.000	-0.274	-	-0.274
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.274	-	-0.274

**Change Summary Explanation**

The decrease of -\$0.160 in FY 2018 is attributed to a reduction in life-cycle test infrastructure upgrades and replacement of the Distributed Development and Test Enterprise (DDTE). Part of the overall decrease (-\$0.114) is attributed to the Service Requirements Review Board (SSRB) contract reduction.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NF1: <i>Distributed Common Ground/Surface Systems</i>	46.899	3.239	3.030	3.049	-	3.049	3.056	3.073	3.142	3.224	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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Distributed Common Ground/Surface Systems (DCGS)	3.239	3.030	3.049
<b>FY 2016 Accomplishments:</b>			
Continuing to support DDTE and to provide enhanced functionality with expanding T&E capability, with a focus on increasingly automated evaluations of net-centric data and web services. Incorporating new technologies such as cloud computing, mobile technology, and “big data” in assessment methodologies and practices. To further DCGS Enterprise and associated Defense Intelligence Information Enterprise (DI2E) capabilities, conducting compliance testing of data, metadata, and services			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>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 PoRs participate in assessment venues with other DI2E entities. Developing and implementing passive instrumentation on operational networks that can gather data on capabilities not instantiated on the DDTE test domain to provide a more robust evaluation of the net-centric maturity of the DCGS Enterprise. Data collected by these assessment efforts are reflected in the Enterprise Maturity Model (EMM) and documented in an annual DCGS Enterprise Assessment Report.</p> <p><b>FY 2017 Plans:</b> Continuing to support DDTE, provide enhanced functionality, expand T&amp;E capability, and perform automated evaluations of net-centric data and web services with improved assessment methodologies and practices due to incorporating new technologies such as cloud computing, mobile technology, and “big data”. Continuing to conduct compliance testing of data, metadata, and services against established standards to enhance the sharing and promote reuse of net centric capabilities and to enhance “Testing as a Service” (TaaS) capabilities that enable DCGS entities and other communities of interest (COIs) to test for standards compliance during the development and acquisition processes. enterprise T&amp;E support, such as enterprise-level assessment events i.e., ENTERPRISE CHALLENGE). Development of and improvements to instrumentation for data collection and testing support on the DCGS network domains and enclaves for the DCGS PoRs, National Agencies and Coalition Partners continues; with the number of active DDTE nodes expected to increase as the DCGS Programs of Record (PoRs) participate in assessment venues with other DI2E entities. Developing and implementing passive instrumentation on operational networks that can gather data on capabilities not instantiated on the DDTE test domain to provide a more robust evaluation of the net-centric maturity of the DCGS Enterprise. Data collected by these assessment efforts are reflected in the Enterprise Maturity Model (EMM) and documented in an annual DCGS Enterprise Assessment Report.</p> <p>The decrease of -\$0.209 from FY 2016 to FY 2017 is due to reduced testing costs following automation improvements, reduction in the number of testing events and delay in end of life hardware replacement.</p> <p><b>FY 2018 Plans:</b> Continue to support DDTE, provide enhanced functionality, expand T&amp;E capability, and perform automated evaluations of net-centric capabilities with improved assessment methodologies and practices due to incorporating new technologies such as cloud computing, mobile technology, and “big data”; the number of active DDTE nodes is expected to increase as the DCGS Programs of Record (PoRs) participate in assessment venues with other DI2E entities. Continue to conduct compliance testing of data, metadata, and web services against established standards to enhance the sharing and promote reuse of net centric</p>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>solutions. Continuing to expand TaaS capabilities that enable DCGS entities and other COIs to test for standards compliance during the development and acquisition processes. Continue enhancement of instrumentation and automated data collection tools to support testing on multiple network domains and enclaves where the DCGS PoRs, National Agencies and Coalition Partners test and operate. Plan and conduct testing of enterprise cybersecurity solutions to determine if they comply with standards, support interoperability between the DCGS PoRs, and meet the DCGS Enterprise cybersecurity requirements. Data collected by these assessment efforts are reflected in an annual DCGS Enterprise Assessment Report that delineates how well the DCGS Enterprise shows progress over time in meeting the capabilities and closing the gaps reflected in the 2016 DCGS Enterprise Initial Capabilities Document.</p> <p>The increase of +\$0.133 in FY 2018 will provide for the implementation of enhanced data analytics for DCGS. This increase is partially offset by a decrease of -\$0.114 attributed to the Service Requirements Review Board (SSRB) contract reduction.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	3.239	3.030	3.049

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

N/A

**Remarks**

**D. Acquisition Strategy**

A T&E Mission Support Services (MSS) cost plus fixed fee contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions.

**E. Performance Metrics**

The DCGS T&E FT performs a minimum of six DCGS Enterprise assessments per year, and the results are consolidated into the T&E FT Enterprise Assessment Report annually. The T&E FT also provides input to the DCGS Enterprise Focus Team's State of the Enterprise (SoE) Report, which includes the Enterprise Maturity Model (EMM) and shows measurable DCGS Enterprise net-centric maturity progress over time.

The T&E FT also leverages Joint Interoperability Certification testing to support the evaluation of DCGS Enterprise maturity. In FY 2016, T&E FT performed twelve (12) DCGS Enterprise assessments. This trend is expected to continue in FY2017. Of the six DCGS PoR systems, two 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. Of the three remaining PoRs, two 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency		<b>Date:</b> May 2017
<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>

In FY 2016, T&E FT conducted twelve (12) DCGS Enterprise assessments.

In FY 2017, T&E FT will perform a minimum of ten (10) DCGS Enterprise assessments.

In FY 2018, T&E FT will perform a minimum of nine (9) DCGS Enterprise assessments.

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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Defense Information Systems Agency** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>
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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	0.642	0.000	0.642	2.334	2.333	2.403	2.445	Continuing	Continuing
NS01: <i>Teleport Generation 1/2</i>	0.000	0.000	0.000	0.642	0.000	0.642	2.334	2.333	2.403	2.445	Continuing	Continuing

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

Department of Defense (DoD) Teleport system is a satellite communications (SATCOM) gateway that links the deployed warfighter to the Global Information Grid. The DoD Teleport program has fielded system capabilities incrementally using a multi-generational approach with Generation 1 and 2 Full Deployment authorized by DoD Chief Information Officer on February 18, 2011. DoD Teleport Generation 3 consists of three phases; Phases 1 and 2 are in Production and Deployment while Phase 3 is in Engineering and Manufacturing Development. Each DoD Teleport investment increases the warfighter's ability to communicate with a world-wide, net-centric set of information capabilities, which is vital for the DoD to maintain a persistent presence among its adversaries.

Currently, the Teleport system operates as an upgrade of SATCOM capabilities at selected DoD SATCOM gateways. This system provides deployed warfighters with seamless worldwide multi-band SATCOM connectivity to the Defense Information System Network (DISN) Service Delivery Nodes and legacy tactical command, control, communications, computers, and intelligence systems. It also provides centralized integration capabilities, contingency capacity, and common interfaces to access the DISN.

DoD Teleport's goal is to provide secure, seamless, interoperable, and economical upgrades to DoD SATCOM Gateways and meet the growing throughput requirements of the deployed warfighter.

The primary beneficiaries of the DoD Teleport investment are the DoD Combatant Commanders, Military Departments, Defense Agencies, and the warfighter. DoD Teleport Generation 3 is designed to meet the growing demands of the warfighter through the execution of the following phases:

Phase 1: Gateway Advanced Extremely High Frequency [Extended Data Rate] terminals provides tactical users with a 350% bandwidth increase in survivable, antijam communications through all peacetime and combat operations by installing Navy Multiband Terminals (NMT) at select Teleport sites. In addition to enhanced throughput, the NMT maintains compatibility with legacy waveforms and current tactical terminals.

Phase 2: Gateway Wideband Global SATCOM X/Ka-band terminals provide enhanced Wideband Global System (WGS) X/Ka capability to warfighters worldwide by installing terminals from the Modernization of Enterprise Terminal (MET) program at DoD Teleport and other gateway sites. This gateway enhancement allows Teleport to replace end-of-life Defense Satellite Communications System (DSCS) terminals while remaining interoperable with tactical WGS X/Ka-band users. The MET enhancement provides a 300% Ka-band capacity increase and an 1100% X-band capacity increase to current enterprise terminal X/Ka capabilities. Additionally, it enables the DoD Teleport system to maintain operational availability consistent with Generation 2 requirements and reduce the overall life-cycle cost of X/Ka capabilities across the DoD.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Defense Information Systems Agency	<b>Date:</b> May 2017
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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 1203610K / <i>Teleport Program</i>
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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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	0.000	0.000	0.708	-	0.708
Current President's Budget	0.000	0.000	0.642	-	0.642
Total Adjustments	0.000	0.000	-0.066	-	-0.066
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.066	-	-0.066

**Change Summary Explanation**

The decrease of -\$0.066 in FY 2018 is due to a reduction in testing requirements.



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Defense Information Systems Agency										<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 0400 / 7					<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>				<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
NS01: <i>Teleport Generation 1/2</i>	0.000	0.000	0.000	0.642	0.000	0.642	2.334	2.333	2.403	2.445	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 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Title:</b> Teleport Program	0.000	0.000	0.642	0.000	0.642
<b>Description:</b> N/A					
<b>FY 2016 Accomplishments:</b> N/A					
<b>FY 2017 Plans:</b> N/A					
<b>FY 2018 Base Plans:</b> Funding will be used to support the Joint Interoperability Certification of the DoD Teleport System.					
The increase of \$0.642 from FY 2017 to FY 2018 is attributed to the funding be moved from program element 0303610K for Teleport.					
<b>FY 2018 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	0.642	0.000	0.642

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203610K / <i>Teleport Program</i>	<b>Project (Number/Name)</b> NS01 / <i>Teleport Generation 1/2</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• O&M, DW/ PE0303610K: <i>O&amp;M, DW</i>	0.000	0.000	3.498	0.000	3.498	3.828	3.846	3.913	10.986	Continuing	Continuing
• Procurement, DW/ PE0303610K: <i>Procurement, DW</i>	0.000	0.000	20.927	0.000	20.927	21.387	21.582	22.012	22.408	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The Teleport Program Office (TPO) uses the DoD preferred evolutionary acquisition approach to acquire Commercial off the Shelf (COTS) and modified COTS equipment when possible. The three TPO procuring agencies, Program Manager Defense Communications and Army Transmission Systems, the Space and Naval Warfare Systems Command, and Defense Information Technology Contracting Organization (DITCO) provide direct contracting support. Assistance from other Departments including Army, Navy, and Air Force is acquired via Military Interdepartmental Purchase Request for both organic and contracted support. The TPO maximizes the use of performance-based contracts and requires contractors to establish and manage specific earned value data to mitigate risk and monitor deviations from cost, schedule, and performance objectives. Performance is evaluated thorough post-award contract reviews, performance assessment during quarterly program reviews. The MLGC program will use various contract types to employ the vendor best suited to deliver the program’s capabilities to the warfighter.

**E. Performance Metrics**

Teleport Cost and Schedule Performance Metrics:

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

Teleport Program Metrics:

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

Performance metrics have been established in four measurement areas: 1) customer results, 2) mission and business results, 3) processes and activities, and 4) technology. Specific measurement indicators and units of measure vary by measurement area, and metrics in each of the aforementioned areas are measured annually. Teleport will use the same measurement areas for performance metrics in FY 2016, FY 2017 and FY 2018.

Generation 1/2 Metric:

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**Exhibit R-2A, RDT&E Project Justification:** FY 2018 Defense Information Systems Agency **Date:** May 2017

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 7	PE 1203610K / <i>Teleport Program</i>	NS01 / <i>Teleport Generation 1/2</i>

Percentage of system changes resulting in interoperability certification

FY 2016 Actual: 100%

FY 2017 Target: 100%

FY 2018 Target: 100%

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