Department of Defense
Fiscal Year (FY) 2020 Budget Estimates

March 2019

Defense Information Systems Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Volumes

Volume 5 Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK

Department of Defense
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Appropriation	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
Research, Development, Test & Eval, DW	272,639	282,171		282,171
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Department of Defense
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Appropriation	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
Research, Development, Test & Eval, DW	542,928				542,928
Total Research, Development, Test & Evaluation	542,928				542,928

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Department of Defense
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Summary Recap of Budget Activities	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
System Development And Demonstration	2,500	2,512		2,512
Management Support	27,807	26,467		26,467
Operational System Development	242,332	253,192		253,192
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

Summary Recap of FYDP Programs				
General Purpose Forces	58,235	62,814		62,814
Intelligence and Communications	202,369	212,213		212,213
Research and Development	6,500			
Central Supply and Maintenance		1,317		1,317
Administration and Associated Activities	4,961	5,104		5,104
Space	574	723		723
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Department of Defense
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Summary Recap of Budget Activities	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
System Development And Demonstration	1,578				1,578
Management Support	61,757				61,757
Operational System Development	479,593				479,593
Total Research, Development, Test & Evaluation	542,928				542,928

Summary Recap of FYDP Programs

	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
General Purpose Forces	64,122				64,122
Intelligence and Communications	259,363				259,363
Research and Development	208,834				208,834
Central Supply and Maintenance	1,361				1,361
Administration and Associated Activities	3,090				3,090
Space	6,158				6,158
Total Research, Development, Test & Evaluation	542,928				542,928

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Summary Recap of Budget Activities	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
System Development And Demonstration	2,500	2,512		2,512
Management Support	27,807	26,467		26,467
Operational System Development	242,332	253,192		253,192
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

Summary Recap of FYDP Programs

	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
General Purpose Forces	58,235	62,814		62,814
Intelligence and Communications	202,369	212,213		212,213
Research and Development	6,500			
Central Supply and Maintenance		1,317		1,317
Administration and Associated Activities	4,961	5,104		5,104
Space	574	723		723
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Summary Recap of Budget Activities	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
System Development And Demonstration	1,578				1,578
Management Support	61,757				61,757
Operational System Development	479,593				479,593
Total Research, Development, Test & Evaluation	542,928				542,928

Summary Recap of FYDP Programs					
General Purpose Forces	64,122				64,122
Intelligence and Communications	259,363				259,363
Research and Development	208,834				208,834
Central Supply and Maintenance	1,361				1,361
Administration and Associated Activities	3,090				3,090
Space	6,158				6,158
Total Research, Development, Test & Evaluation	542,928				542,928

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Appropriation	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
Defense Information Systems Agency	272,639	282,171		282,171
Total Research, Development, Test & Evaluation	272,639	282,171		282,171

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

Appropriation	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
Defense Information Systems Agency	542,928				542,928
Total Research, Development, Test & Evaluation	542,928				542,928

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Sec
139	0303141K	Global Combat Support System	05	2,500	2,512		2,512	U
		System Development And Demonstration		2,500	2,512		2,512	
163	0605502K	Small Business Innovative Research	06	6,500				U
185	0305172K	Combined Advanced Applications	06	16,998	21,363		21,363	U
194	0903235K	Joint Service Provider (JSP)	06	4,309	5,104		5,104	U
		Management Support		27,807	26,467		26,467	
196	0604532K	Joint Artificial Intelligence	07					U
204	0208045K	C4I Interoperability	07	58,235	62,814		62,814	U
206	0301144K	Joint/Allied Coalition Information Sharing	07	5,801				U
209	0302016K	National Military Command System-Wide Support	07	1,863				U
210	0302019K	Defense Info Infrastructure Engineering and Integration	07	20,059	16,121		16,121	U
211	0303126K	Long-Haul Communications - DCS	07	23,090	14,353		14,353	U
212	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	15,855	17,579		17,579	U
217	0303140K	Information Systems Security Program	07		19,611		19,611	U
218	0303150K	Global Command and Control System	07	41,126	46,900		46,900	U
219	0303153K	Defense Spectrum Organization	07	8,377	7,457		7,457	U
220	0303228K	Joint Regional Security Stacks (JRSS)	07	4,550	7,947		7,947	U
221	0303267K	Auctioned Spectrum Relocation Fund	07	15,804				U

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Sec
139	0303141K	Global Combat Support System	05	1,578				1,578	U
		System Development And Demonstration		1,578				1,578	
163	0605502K	Small Business Innovative Research	06						U
185	0305172K	Combined Advanced Applications	06	58,667				58,667	U
194	0903235K	Joint Service Provider (JSP)	06	3,090				3,090	U
		Management Support		61,757				61,757	
196	0604532K	Joint Artificial Intelligence	07	208,834				208,834	U
204	0208045K	C4I Interoperability	07	64,122				64,122	U
206	0301144K	Joint/Allied Coalition Information Sharing	07						U
209	0302016K	National Military Command System-Wide Support	07						U
210	0302019K	Defense Info Infrastructure Engineering and Integration	07	15,798				15,798	U
211	0303126K	Long-Haul Communications - DCS	07	11,166				11,166	U
212	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	17,383				17,383	U
217	0303140K	Information Systems Security Program	07	42,796				42,796	U
218	0303150K	Global Command and Control System	07	25,218				25,218	U
219	0303153K	Defense Spectrum Organization	07	21,698				21,698	U
220	0303228K	Joint Regional Security Stacks (JRSS)	07	18,077				18,077	U
221	0303267K	Auctioned Spectrum Relocation Fund	07						U

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Sec
--	------	----	---	----------	----------	----------	----------	-
222	0303430K	Federal Investigative Services Information Technology	07	41,743	55,400		55,400	U
225	0305103K	Cyber Security Initiative	07	1,644				U
238	0305208K	Distributed Common Ground/Surface Systems	07	2,959	2,970		2,970	U
250	0708012K	Logistics Support Activities	07		1,317		1,317	U
253	0903235K	Joint Service Provider (JSP)	07	652				U
266	1203610K	Teleport Program	07	574	723		723	U
		Operational System Development		242,332	253,192		253,192	
		Total Research, Development, Test & Eval, DW		272,639	282,171		282,171	

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense-Wide
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Sec
222	0303430K	Federal Investigative Services Information Technology	07	44,001				44,001	U
225	0305103K	Cyber Security Initiative	07						U
238	0305208K	Distributed Common Ground/Surface Systems	07	2,981				2,981	U
250	0708012K	Logistics Support Activities	07	1,361				1,361	U
253	0903235K	Joint Service Provider (JSP)	07						U
266	1203610K	Teleport Program	07	6,158				6,158	U
		Operational System Development		479,593				479,593	
		Total Research, Development, Test & Eval, DW		542,928				542,928	

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense Information Systems Agency
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Sec
139	0303141K	Global Combat Support System	05	2,500	2,512		2,512	U
		System Development And Demonstration		2,500	2,512		2,512	
163	0605502K	Small Business Innovative Research	06	6,500				U
185	0305172K	Combined Advanced Applications	06	16,998	21,363		21,363	U
194	0903235K	Joint Service Provider (JSP)	06	4,309	5,104		5,104	U
		Management Support		27,807	26,467		26,467	
196	0604532K	Joint Artificial Intelligence	07					U
204	0208045K	C4I Interoperability	07	58,235	62,814		62,814	U
206	0301144K	Joint/Allied Coalition Information Sharing	07	5,801				U
209	0302016K	National Military Command System-Wide Support	07	1,863				U
210	0302019K	Defense Info Infrastructure Engineering and Integration	07	20,059	16,121		16,121	U
211	0303126K	Long-Haul Communications - DCS	07	23,090	14,353		14,353	U
212	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	15,855	17,579		17,579	U
217	0303140K	Information Systems Security Program	07		19,611		19,611	U
218	0303150K	Global Command and Control System	07	41,126	46,900		46,900	U
219	0303153K	Defense Spectrum Organization	07	8,377	7,457		7,457	U
220	0303228K	Joint Regional Security Stacks (JRSS)	07	4,550	7,947		7,947	U
221	0303267K	Auctioned Spectrum Relocation Fund	07	15,804				U

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense Information Systems Agency
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Sec
139	0303141K	Global Combat Support System	05	1,578				1,578	U
		System Development And Demonstration		1,578				1,578	
163	0605502K	Small Business Innovative Research	06						U
185	0305172K	Combined Advanced Applications	06	58,667				58,667	U
194	0903235K	Joint Service Provider (JSP)	06	3,090				3,090	U
		Management Support		61,757				61,757	
196	0604532K	Joint Artificial Intelligence	07	208,834				208,834	U
204	0208045K	C4I Interoperability	07	64,122				64,122	U
206	0301144K	Joint/Allied Coalition Information Sharing	07						U
209	0302016K	National Military Command System-Wide Support	07						U
210	0302019K	Defense Info Infrastructure Engineering and Integration	07	15,798				15,798	U
211	0303126K	Long-Haul Communications - DCS	07	11,166				11,166	U
212	0303131K	Minimum Essential Emergency Communications Network (MEECN)	07	17,383				17,383	U
217	0303140K	Information Systems Security Program	07	42,796				42,796	U
218	0303150K	Global Command and Control System	07	25,218				25,218	U
219	0303153K	Defense Spectrum Organization	07	21,698				21,698	U
220	0303228K	Joint Regional Security Stacks (JRSS)	07	18,077				18,077	U
221	0303267K	Auctioned Spectrum Relocation Fund	07						U

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

UNCLASSIFIED

Defense Information Systems Agency
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Sec
222	0303430K	Federal Investigative Services Information Technology	07	41,743	55,400		55,400	U
225	0305103K	Cyber Security Initiative	07	1,644				U
238	0305208K	Distributed Common Ground/Surface Systems	07	2,959	2,970		2,970	U
250	0708012K	Logistics Support Activities	07		1,317		1,317	U
253	0903235K	Joint Service Provider (JSP)	07	652				U
266	1203610K	Teleport Program	07	574	723		723	U
		Operational System Development		242,332	253,192		253,192	
		Total Defense Information Systems Agency		272,639	282,171		282,171	

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

UNCLASSIFIED

Defense Information Systems Agency
FY 2020 President's Budget
Exhibit R-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

25 Feb 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Sec
222	0303430K	Federal Investigative Services Information Technology	07	44,001				44,001	U
225	0305103K	Cyber Security Initiative	07						U
238	0305208K	Distributed Common Ground/Surface Systems	07	2,981				2,981	U
250	0708012K	Logistics Support Activities	07	1,361				1,361	U
253	0903235K	Joint Service Provider (JSP)	07						U
266	1203610K	Teleport Program	07	6,158				6,158	U
		Operational System Development		479,593				479,593	
		Total Defense Information Systems Agency		542,928				542,928	

R-120PB: FY 2020 President's Budget (Published Version), as of February 25, 2019 at 09:44:21

Defense Information Systems Agency • Budget Estimates FY 2020 • RDT&E Program

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

UNCLASSIFIED

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

Defense Information Systems Agency • Budget Estimates FY 2020 • RDT&E Program

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*					**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*							

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	266.185	2.500	2.512	1.578	-	1.578	1.708	2.135	2.211	2.253	Continuing	Continuing
CS01: *Global Combat Support System*	266.185	2.500	2.512	1.578	-	1.578	1.708	2.135	2.211	2.253	Continuing	Continuing

Program MDAP/MAIS Code: 483

A. Mission Description and Budget Item Justification

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

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	2.576	2.512	1.578	-	1.578
Current President's Budget	2.500	2.512	1.578	-	1.578
Total Adjustments	-0.076	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.076	-			

Change Summary Explanation

The decrease of -$0.076 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 *I* 5				**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*						**Project (Number/Name)** CS01 *I Global Combat Support System*		
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
CS01: *Global Combat Support System*	266.185	2.500	2.512	1.578	-	1.578	1.708	2.135	2.211	2.253	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

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

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Global Combat Support System-Joint	2.500	2.512	1.578
Description: GCSS-J is a key enabler for achieving Focused Logistics and is essential during peace, contingency, crisis, and war in support of the joint warfighter across the full range of military operations. GCSS-J, the Logistics System of Record, provides a Joint Logistics Common Operational Picture (LogCOP) to ensure the right personnel, equipment, supplies, and support are in the right place at the right time and in the right quantities to mobilize, move, and sustain all elements of operating forces within a theater or operational area. *FY 2019 Plans:* 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. *FY 2020 Plans:* 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. *FY 2019 to FY 2020 Increase/Decrease Statement:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 5	**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*	**Project (Number/Name)** CS01 *I Global Combat Support System*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
The decrease of -$0.934 from FY 2019 to FY 2020 is attributed to a reduction in the number of software changes required when adding or updating capabilities through adapting metadata.			
Accomplishments/Planned Programs Subtotals	2.500	2.512	1.578

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/PE 0303141K: *O&M, DW*	13.565	15.174	14.717	-	14.717	15.008	15.305	15.566	15.787	Continuing	Continuing

Remarks

D. Acquisition Strategy

The GCSS-J Program Management Office (PMO) uses various contract types, employs large and small businesses, 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.

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 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.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 5	**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*	**Project (Number/Name)** CS01 *I Global Combat Support System*

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

FY 2018 (Actual) The Key Performance Parameters (KPPs) found in the GCSS-J Acquisition Program Baseline, define baseline measures for the effectiveness of mission performance; the threshold is 95%. Results:Data collected during FY18 demonstrates that GCSS-J v8.2 has met its target of 95% .

FY 2019 (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. FY19 Target: 95%

FY 2020 Target: 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. FY20 Target: 95%

2. Customer Results and Customer Satisfaction

2018 (Actual) Help Desk Key Performance Indicators (KPIs) define the baseline measure to evaluate customer satisfaction and provide a service desk assessment; KPI threshold is 80%. Results: GCSS-J exceeded the 80% threshold for the helpdesk KPIs by demonstrating 95% in Completeness and Accuracy, 81% in Escalation, 81% in Incident Report Updating/ Follow-Up and 88% in First Call Resolution

FY 2019 (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, DISA Enterprise Computing Center (DECC)-Montgomery, and from user surveys. FY19 Target: 80%

FY 2020 Target: 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. FY20 Target: 80%

3. Processes and Activities and Program Monitoring

FY 2018 (Actual) Baseline Measure – Deployed Increment 8, v8.2.0.1, v8.2.0.2 and v8.2.0.3 in 2nd Quarter 2018.

FY 2019 (Estimate) Baseline Measure – To deploy Increment 8, v8.4 in 2nd Quarter 2019.

FY 2020 Target: Baseline Measure – To deploy Increment 9, v9.0 in 2nd Quarter 2020.

4. Technology and System Development

FY 2018 (Actual) Baseline Measure is the ability to provide current and accurate information from the Authorized Data Source (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%

PE 0303141K: *Global Combat Support System*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 9

R-1 Line #139

Volume 5 - 4

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 5	**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*	**Project (Number/Name)** CS01 *I Global Combat Support System*

FY 2019 (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. FY19 Target: 95%

FY 2020 Target: 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. FY20 Target: 95%

PE 0303141K: *Global Combat Support System*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 9

R-1 Line #139

Volume 5 - 5

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency													**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 5				**R-1 Program Element (Number/Name)** PE 0303141K *I Global Combat Support System*							**Project (Number/Name)** CS01 *I Global Combat Support System*			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development 1	C/T&M	Enterworks : Sterling, VA	8.745	-		-		-		-		-	0.000	8.745	8.745
Product Development 2	C/T&M	WFI (DSI) : Manassas, VA	4.125	-		-		-		-		-	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	17.061	17.061
Product Development 5	C/FFP	NGIT, : Reston, VA	27.051	-		-		-		-		-	0.000	27.051	27.051
Product Development 6	SS/FFP	UNISYS, : Falls Church, VA	16.472	-		-		-		-		-	0.000	16.472	16.472
Product Development 7	MIPR	FGM, : Reston, VA	5.482	-		-		-		-		-	0.000	5.482	5.482
Product Development 8	SS/FFP	Merlin, : McLean, VA	1.664	-		-		-		-		-	0.000	1.664	1.664
Product Development 9	MIPR	JDTC, : Ft. Eustis, VA	2.423	-		-		-		-		-	0.000	2.423	2.423
Product Development 10	MIPR	CSC, : Norfolk, VA	0.300	-		-		-		-		-	0.000	0.300	0.300
Product Development 11	C/FFP	Pragmatics : Reston, VA	13.300	1.470	May 2018	1.774	May 2019	0.722	May 2020	0.000		0.722	Continuing	Continuing	Continuing
		Subtotal	224.472	1.470		1.774		0.722		0.000		0.722	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test & Evaluation 1	C/CPFF	COMTEK, : Sterling,VA	3.902	-		-		-		-		-	0.000	3.902	3.902
Test & Evaluation 2	MIPR	SSO, : Montgomery	0.500	-		-		-		-		-	0.000	0.500	0.500
Test & Evaluation 3	MIPR	DIA : WDC	3.785	-		-		-		-		-	0.000	3.785	3.785
Test & Evaluation 4	C/CPFF	Pragmatics : Pragmatics	1.684	-		-		-		-		-	0.000	1.684	1.684
Test & Evaluation 5	C/CPFF	AAC, Inc., : Vienna, VA	2.790	-		-		-		-		-	0.000	2.790	2.790

PE 0303141K: *Global Combat Support System*
Defense Information Systems Agency
UNCLASSIFIED
Page 6 of 9
R-1 Line #139
Volume 5 - 6

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0303141K / *Global Combat Support System*	**Project (Number/Name)** CS01 / *Global Combat Support System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 6	MIPR	JITC, : Ft. Huachuca, AZ	7.632	0.600	Oct 2017	0.486	Oct 2018	0.616	Oct 2019	-		0.616	Continuing	Continuing	Continuing
Test & Evaluation 7	MIPR	STRATCOM (DAA) : Bolling AFB, DC	0.962	0.170	Oct 2017	0.157	Oct 2018	0.170	Oct 2019	-		0.170	Continuing	Continuing	Continuing
Test & Evaluation 8	MIPR	DISA (TE LAB Support) : Fort Meade, MD	1.464	0.100	Oct 2017	0.095	Oct 2018	0.070	Oct 2019	-		0.070	Continuing	Continuing	Continuing
Test & Evaluation 9	MIPR	DISA FSO Security Testing Support : Fort Meade, MD	0.190	0.160	Oct 2017	-		-		-		-	0.000	0.350	0.350
Subtotal			22.909	1.030		0.738		0.856		-		0.856	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services 1	FFRDC	MITRE, : Vienna, VA	16.934	-		-		-		-		-	0.000	16.934	16.934
Management Services 2	SS/CPFF	UMD, : Eastern Shore, MD	1.021	-		-		-		-		-	0.000	1.021	1.021
Management Services 3	MIPR	IDA, : Alexandria, VA	0.749	-		-		-		-		-	0.000	0.749	0.749
Management Services 4	MIPR	JFCOM, : Norfolk, Va	0.100	-		-		-		-		-	0.000	0.100	0.100
Subtotal			18.804	-		-		-		-		-	0.000	18.804	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	266.185	2.500	2.512	1.578	0.000	1.578	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency	**Date:** March 2019

Appropriation/Budget Activity 0400 *I* 5	R-1 Program Element (Number/Name) PE 0303141K *I Global Combat Support System*	Project (Number/Name) CS01 *I Global Combat Support System*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
System Development & Testing - Increment 8																										▓	▓	▓
Full Deployment Decision - Increment 8																												
Acquisition Events - Milestone B/C: Increment 9 - MS B																												
Acquisition Events - Milestone B/C: Increment 9 - MS C																												
System Development & Testing - Increment 9																												
System Development & Testing - Increment 10																												
Full Deployment Decision - Increment 9																												
Full Deployment Decision - Increment 10																												

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
System Development & Testing - Increment 8	▓	▓	▓	▓	▓	▓	▓	▓																				
Full Deployment Decision - Increment 8						▓																						
Acquisition Events - Milestone B/C: Increment 9 - MS B								▓																				
Acquisition Events - Milestone B/C: Increment 9 - MS C										▓																		
System Development & Testing - Increment 9													▓	▓	▓	▓	▓	▓	▓	▓	▓	▓						
System Development & Testing - Increment 10													▓	▓	▓	▓	▓	▓	▓	▓	▓							
Full Deployment Decision - Increment 9														▓	▓	▓	▓	▓	▓	▓								
Full Deployment Decision - Increment 10															▓	▓	▓	▓	▓	▓	▓	▓						

PE 0303141K: *Global Combat Support System*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 9

R-1 Line #139

Volume 5 - 8

UNCLASSIFIED

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

Schedule Details

Events	Start Quarter	Start Year	End Quarter	End Year
System Development & Testing - Increment 8	2	2017	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	4	2020	4	2023
System Development & Testing - Increment 10	4	2020	2	2023
Full Deployment Decision - Increment 9	1	2021	1	2023
Full Deployment Decision - Increment 10	1	2022	1	2024

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency		Date: March 2019

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	PE 0605502K *I Small Business Innovative Research*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	6.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
SBR: *Small Business Innovative Research*	0.000	6.500	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. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	6.500	0.000	0.000	-	0.000
Total Adjustments	6.500	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	6.500	-			

Change Summary Explanation

The increase of +$6.500 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

Appropriation/Budget Activity 0400 I 6				R-1 Program Element (Number/Name) PE 0605502K I *Small Business Innovative Research*				Project (Number/Name) SBR I *Small Business Innovative Research*				

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
SBR: *Small Business Innovative Research*	0.000	6.500	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 2018	FY 2019	FY 2020
Title: Small Business Innovation Research	6.500	-	-
Description: 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, highrisk 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.			
Accomplishments/Planned Programs Subtotals	6.500	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

PE 0605502K: *Small Business Innovative Research*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 2

R-1 Line #163

Volume 5 - 12

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency	Date: March 2019

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	PE 0305172K *I Combined Advanced Applications*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	12.200	16.998	21.363	58.667	-	58.667	33.796	9.426	8.955	8.787	Continuing	Continuing
CA1: *Combined Advanced Applications*	12.200	16.998	21.363	48.667	-	48.667	33.796	9.426	8.955	8.787	Continuing	Continuing
FM1: *Financial Management Systems*	-	0.000	0.000	10.000	-	10.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Combined Advanced Applications is classified and exhibit will be provided under a separate cover.

Financial Management Systems will acquire support for the modernization of the financial account management information system capability. The new procurement will use a single step to full capability approach and execute in accordance with the Component Acquisition Executive (CAE) Guideline for Projects. This Acquisition Strategy provides the business and technical management approach to achieve program objectives within resource constraints. The financial business area is currently supported by multiple legacy systems operating on platforms with associated performance issues such as high cost, technology support issues, unsupportable interoperability, and high risk of failure. In addition, various federal financial management and Department of Defense requirements (e.g., Business Enterprise Architecture (BEA); the Treasury Department's Invoice Processing Platform.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	16.998	21.363	12.437	-	12.437
Current President's Budget	16.998	21.363	58.667	-	58.667
Total Adjustments	0.000	0.000	46.230	-	46.230
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment	-	-	46.230	-	46.230

Change Summary Explanation

Increase of +$46.230 in FY 2020 is due an increase of +$10.000for the initial development of a financial management system for sensitive activities in support of the Defense-Wide (TI-97) and the Army (TI-21). Remaining +-36.230 is classified and exhibit will be provided under a separate cover.

PE 0305172K: *Combined Advanced Applications*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 4

R-1 Line #185

Volume 5 - 13

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 / 6				**R-1 Program Element (Number/Name)** PE 0305172K / *Combined Advanced Applications*				**Project (Number/Name)** CA1 / *Combined Advanced Applications*			
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
CA1: *Combined Advanced Applications*	12.200	16.998	21.363	48.667	-	48.667	33.796	9.426	8.955	8.787	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification
Program is classified and exhibit will be provided under a separate cover.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Combined Advanced Applications	16.998	21.363	48.667
Description: Classified.			
FY 2019 Plans: Classified.			
FY 2020 Plans: Classified.			
FY 2019 to FY 2020 Increase/Decrease Statement: Classified.			
Accomplishments/Planned Programs Subtotals	16.998	21.363	48.667

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

D. Acquisition Strategy
Classified

E. Performance Metrics
Classified

PE 0305172K: *Combined Advanced Applications*
Defense Information Systems Agency
UNCLASSIFIED
Page 2 of 4
R-1 Line #185
Volume 5 - 14

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 *I* 6				**R-1 Program Element (Number/Name)** PE 0305172K *I Combined Advanced Applications*						**Project (Number/Name)** FM1 *I Financial Management Systems*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
FM1: *Financial Management Systems*	-	0.000	0.000	10.000	-	10.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Financial Management Systems will acquire support for the modernization of the financial account management information system capability. The new procurement will use a single step to full capability approach and execute in accordance with the Component Acquisition Executive (CAE) Guideline for Projects. This Acquisition Strategy provides the business and technical management approach to achieve program objectives within resource constraints. The financial business area is currently supported by multiple legacy systems operating on platforms with associated performance issues such as high cost, technology support issues, unsupportable interoperability, and high risk of failure. In addition, various federal financial management and Department of Defense requirements (e.g., Business Enterprise Architecture (BEA); the Treasury Department's Invoice Processing Platform.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Financial Management Systems - Test and Development **Description:** Provides development, testing, piloting and pre-deployment for integrated business solution for the modernization of the sensitive financial information platform capability for the DoD users. ***FY 2020 Plans:*** Develop, pilot, and test integrated capabilities and solutions to support the operational requirements of the defense wide financial communities user base. Supports such efforts as configuration Management, system engineering requirement's, and interoperability (IOP) and certification and system testing. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** Increase of +$10.000 from FY 2019 to FY 2020 is due to the initial development of a financial management system for sensitive activities in support of the Defense-Wide (TI-97) and the Army (TI-21).	0.000	-	10.000
Accomplishments/Planned Programs Subtotals	0.000	-	10.000

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

D. Acquisition Strategy
N/A

PE 0305172K: *Combined Advanced Applications*
Defense Information Systems Agency
UNCLASSIFIED
Page 3 of 4
R-1 Line #185
Volume 5 - 15

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 6	**R-1 Program Element (Number/Name)** PE 0305172K *I Combined Advanced Applications*	**Project (Number/Name)** FM1 *I Financial Management Systems*

E. Performance Metrics

Financial Management Systems - Test and Development

Number of infrastructure deployment tests and pre-deployment tests for system availability thresholds and interface processing requirements.

FY 2020 Target: 4 Planned

Program and Activities Monitoring

FY 2020 Target: Baseline Measure - To Deploy initial system 4th Quarter 2021.

Technology and System Development

FY 2020 Target: Baseline Measure is the ability to provide system availability at a 100% effectiveness with a 95% threshold for 250-500 concurrent users.

FY 2020 Target: Baseline Measures is the interfaces shall process 100% of all transactions to the appropriate general ledger accounts within the system.

PE 0305172K: *Combined Advanced Applications*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 4

R-1 Line #185

Volume 5 - 16

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*						**R-1 Program Element (Number/Name)** PE 0903235K *I Joint Service Provider*						

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	4.309	5.104	3.090	-	3.090	3.140	2.994	2.991	3.009	Continuing	Continuing
JSP: *Joint Service Provider*	0.000	4.309	5.104	3.090	-	3.090	3.140	2.994	2.991	3.009	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, Headquarters Department of the Army (HQDA), Washington Headquarters Services (WHS), Pentagon Force Protection Agency (PFPA), DoD Consolidated Adjudication Facility (DoD CAF), and other JSP-supported 4th Estate users and communities supported within the Pentagon Reservation and other areas in the National Capitol Region (NCR). RDT&E provides for the test, pilot, and development of new integrated business tools to enhance the JSP business processes and improve the delivery of IT services and capabilities. This activity executes JSP's testing environment to allow insertion of commercial off-the-shelf and government-managed software for all supported JSP services to include network transport, storage, compute, defensive cyber operations, Pentagon Installation Processing Node (IPN), and other components of the NCR's core network infrastructure. These efforts also provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	5.113	5.104	5.090	-	5.090
Current President's Budget	4.309	5.104	3.090	-	3.090
Total Adjustments	-0.804	0.000	-2.000	-	-2.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.152	-			
• Adjustment	-0.652	-	-2.000	-	-2.000

Change Summary Explanation

The decrease of -$0.804 in FY 2018 is due to the amount of -$0.652 showing under BA07 PE 0903235K Joint Service Provider (JSP), but are for this same effort. Funds have since been corrected and moved to this BA06 PE for proper execution, but not in time for yearend lock. Total for FY 2018 should now be $4.961).

The decrease amount of -$0.152 is for the transfer to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 6

R-1 Line #194

Volume 5 - 17

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* I BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0903235K I *Joint Service Provider*	

The decrease of -$2.000 in FY 2020 is attributed to a realignment of funding from RDT&E to the Operations and Maintenance (O&M) appropriation to fund sustainment efforts for the Defensive Cyber Insider Threat - User Activity Monitoring (UAM) initiative.

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency
UNCLASSIFIED
Page 2 of 6
R-1 Line #194
Volume 5 - 18

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency										**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 6				**R-1 Program Element (Number/Name)** PE 0903235K *I Joint Service Provider*					**Project (Number/Name)** JSP *I Joint Service Provider*		
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
JSP: *Joint Service Provider*	0.000	4.309	5.104	3.090	-	3.090	3.140	2.994	2.991	3.009	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 2018**	**FY 2019**	**FY 2020**
Title: Pentagon/NCR Core Enterprise Services *Description:* 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. *FY 2019 Plans:* 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* A decrease of -$3.886 from FY 2019 to FY 2020 is attributed to the re-alignment of -$2.000 from RDT&E appropriation to Operations & Maintenance (O&M) appropriation to fund sustainment efforts for the Defensive Cyber Insider Threat - User Account Monitoring Activity (UAM) and the re-alignment of -$1.886 from Project Title "Pentagon/NCR Core Enterprise Service" to the proper project title "Enterprise Initiative Test & Development" in support of the development, testing, piloting, and prototyping efforts for this correct project line.	3.281	3.886	-
Title: SECDEF Communications *Description:* 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. *FY 2019 Plans:* 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. *FY 2020 Plans:*	0.000	0.103	0.105

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 **/** 6	**R-1 Program Element (Number/Name)** PE 0903235K **/** *Joint Service Provider*	**Project (Number/Name)** JSP **/** *Joint Service Provider*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase of +$0.002 from FY 2019 to FY 2020 is attributed to an increase to technical contract support.			
Title: Business Solutions - Enterprise Services ***Description:*** Provides development, testing, piloting, and pre-deployment support for integrated business tools that will enhance JSP-supported enterprise mission application environment. ***FY 2019 Plans:*** 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. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** A decrease of -$1.115 from FY 2019 to FY 2020 is attributed to the re-alignment of -$1.099 realigns funding to the proper project of Enterprise Initiative Test & Development line to develop and test capabilities to meet the operational requirements of JSP customers; and a decrease of -$0.016 due to a reduction of engineering test hours.	1.028	1.115	-
Title: Enterprise Initiative Test & Development ***Description:*** This activity executes JSP's testing environment to allow insertion of commercial off the shelf and government managed software for all supported JSP services to include network transport, storage, compute, defensive cyber operations, Pentagon Installation Processing Node (IPN), and other components of the NCR's core network infrastructure. This effort allows informed investment in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operational needs required by the JSP supported user base and prioritize developing capabilities enabling a more resilient and survivable Department of Defense Information Network (DODIN) in the face of a dynamic and increasingly sophisticated threat environment. ***FY 2020 Plans:*** Develop, pilot, and test integrated capabilities and solutions to support the operational requirements of the JSP user base. Supports such efforts as adaptive security architecture, threat intelligence machine learning, runtime application self protection and Desktop as a Service. Improve delivery of IT services and capabilities of an increasingly mobile, application centric knowledge workforce JSP supports in a dynamic environment with advanced persistent cyber threats targeting DoD information networks (DODIN). ***FY 2019 to FY 2020 Increase/Decrease Statement:***	-	-	2.985

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 6	**R-1 Program Element (Number/Name)** PE 0903235K **/** *Joint Service Provider*	**Project (Number/Name)** JSP **/** *Joint Service Provider*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
The increase of +$2.985 from FY 2019 to FY 2020 will provide enterprise solutions for the JSP networks and systems for the adaptive security architecture, threat intelligence machine learning, runtime application self protection, and Desktop as a Service.			
Accomplishments/Planned Programs Subtotals	4.309	5.104	3.090

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
 FY 2018 Actual: Planned/2 Completed
 FY 2019 Target: 4 Planned, 90% Pentagon Enterprise CNDS Services
 FY 2020 N/A

 SECDEF Communications:

 Number of System upgrades
 FY 2018 Actual: 2 Planned/0 completed
 FY 2019 Target: 1 Planned/1 Required
 FY 2020 Target: N/A

 Business Solutions - Enterprise Services:

 Number of Operational Test Events for the NIPR and SIPR
 FY 2018 Actual: 2 Planned/2 Completed
 FY 2019 Target: 2 Planned/2 Required
 FY 2020 Target: N/A

 Enterprise Initiative Test & Development

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 6

R-1 Line #194

Volume 5 - 21

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0903235K / *Joint Service Provider*	**Project (Number/Name)** JSP / *Joint Service Provider*

Develop measures of effectiveness (MOE) and measures of performance (MOP) based on 12 month testing planning and event process; as well as conduct testing for all new solutions, Enterprise software and hardware (server) implementations, infrastructure and architectural changes.

FY 2018 N/A
FY 2019 N/A
FY 2020 Target: Complete development of MOE and MOP by 4th quarter of the Fiscal Year

FY 2018 N/A
FY 2019 N/A
FY 2020 Target: Number of Prototype/Pilots conducted for new technologies - 3 achieved annually

FY 2018 N/A
FY 2019 N/A
FY 2020 Target: Percent of Piloted technologies introduced into production - 60% achieved annually

Develop testing environment that mirrors production in terms of hardware, software, network configurations and tools for JSP new Services.

FY 2018 N/A
FY 2019 N/A
FY 2020 Target: Accomplished at 70%

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*							
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	0.000	208.834	-	208.834	34.134	34.134	34.134	34.134	Continuing	Continuing
JA1: *Joint Artificial Intelligence Center (JAIC)*	-	0.000	0.000	208.834	-	208.834	34.134	34.134	34.134	34.134	Continuing	Continuing

A. Mission Description and Budget Item Justification

The JAIC was established to preserve and expand our military advantage in support of the Department's 2018 National Defense Strategy. As a primarily executing body it will accelerate the delivery of Artificial Intelligence (AI) enabled capabilities, scale the Department-wide impact of AI, and synchronize DoD AI activities to expand Joint Force advantages. The JAIC mission is to accelerate the delivery of AI to achieve impact scaled across the DoD at relevant speed to transform the DoD and ensure the nation maintains a competitive advantage. JAIC capitalizes on Project Maven's efforts as the pathfinder AI initiative for the DoD to further critical AI architecture and prototyping to rapidly expand AI to other mission areas. As JAIC efforts prove relevant, they will expedite technology transition from the laboratory to operational use, and increase Joint Force capability. Most military data storage, utilization, and analytic tools and systems were designed pre-AI and require specialized integration to enable the insertion of algorithms into their software baseline. JAIC capabilities are commercial technology initiatives that insert commercial AI into existing programs of record.

JAIC will execute an initial sequence of cross-functional use cases to demonstrate value and create momentum, called National Mission Initiatives (NMI). NMIs will rapidly develop and deploy AI across the Joint Force for selected high-priority, pressing operational or business reform challenges. Additionally, JAIC will work closely with individual components to help identify, shape, and accelerate component-specific AI deployments, called Component Mission Initiatives (CMI). Both NMI and CMI efforts will include selecting commercial and academic partners for prototypes, and develop standardized processes with respect to data, testing and evaluation, and cybersecurity. JAIC will use lessons learned from these initial projects to establish new processes and standards that will be repeatable across additional projects and immediately relevant to the Joint Force. This will be done in collaboration with partners across technology companies, consulting firms, academia, government labs, Federally Funded Research and Development Centers (FFRDC), services, and international partners.

To support the National Defense Strategy (NDS), the JAIC will catalyze and develop AI capabilities to enhance readiness and lethality and ensure DoD maintains an advantage over adversaries. JAIC will spearhead this unique opportunity to expand the competitive space across all domains with AI. JAIC efforts will directly contribute to increased military readiness towards a more lethal Joint Force, it will strengthen alliances and attract new partners by focusing on global problems, and it will enable Departmental reform to increase performance and affordability. JAIC will cultivate workforce talent by recruiting, developing, and retaining high-quality personnel to enable the development and delivery of AI. This will bring critical skills into the department by drawing outside expertise, and leveraging small companies, start-ups, and universities. Implementing AI at a speed of relevance hinges on the ability to integrate AI better than our adversaries, and the JAIC will enable the Department to adapt AI into how it fights. JAIC will focus on speed of delivery, continuous adaptation, and frequent capability delivery sprints. To fully realize this potential, the JAIC will pioneer AI approaches across the full scale of the global enterprise in a manner that is jointly interoperable with allies, partners, military Services, and agencies. Specifically, JAIC will identify and implement new organizational approaches, establish key AI building blocks and standards, develop and attract AI talent, and introduce new operational models that will enable DoD to systematically take advantage of AI at enterprise scale. The JAIC will fulfill the National Security Strategy and NDS to ensure conventional overmatch through dual-use commercial technology and partnered DoD-developed AI. The JAIC will collaborate with non-

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency	**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*

governmental organizations, corporations, strategic influencers, and partners and allies. JAIC will seize the initiative to lead the world in the development and adoption of transformative defense AI solutions that are safe, ethical, and secure. JAIC will spearhead this effort, engaging with the best minds in government, the private sector, academia, and international community.

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	208.834	-	208.834
Total Adjustments	0.000	0.000	208.834	-	208.834
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment	-	-	208.834	-	208.834

Change Summary Explanation

Increase of +$208.834 is due to the functional transfer of JAIC from DoD CIO to DISA.

PE 0604532K: *Joint Artificial Intelligence Center (JA...*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 8

R-1 Line #196

Volume 5 - 24

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 I 7				R-1 Program Element (Number/Name) PE 0604532K I Joint Artificial Intelligence Center (JAIC)						Project (Number/Name) JA1 I Joint Artificial Intelligence Center (JAIC)	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
JA1: Joint Artificial Intelligence Center (JAIC)	-	0.000	0.000	208.834	-	208.834	34.134	34.134	34.134	34.134	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The JAIC was established to preserve and expand our military advantage in support of the Department's 2018 National Defense Strategy. As a primarily executing body it will accelerate the delivery of Artificial Intelligence (AI) enabled capabilities, scale the Department-wide impact of AI, and synchronize DoD AI activities to expand Joint Force advantages. The JAIC mission is to accelerate the delivery of AI to achieve impact scaled across the DoD at relevant speed to transform the DoD and ensure the nation maintains a competitive advantage. JAIC capitalizes on Project Maven's efforts as the pathfinder AI initiative for the DoD to further critical AI architecture and prototyping to rapidly expand AI to other mission areas. As JAIC efforts prove relevant, they will expedite technology transition from the laboratory to operational use, and increase Joint Force capability. Most military data storage, utilization, and analytic tools and systems were designed pre-AI and require specialized integration to enable the insertion of algorithms into their software baseline. JAIC capabilities are commercial technology initiatives that insert commercial AI into existing programs of record.

JAIC will execute an initial sequence of cross-functional use cases to demonstrate value and create momentum, called National Mission Initiatives (NMI). NMIs will rapidly develop and deploy AI across the Joint Force for selected high-priority, pressing operational or business reform challenges. Additionally, JAIC will work closely with individual components to help identify, shape, and accelerate component-specific AI deployments, called Component Mission Initiatives (CMI). Both NMI and CMI efforts will include selecting commercial and academic partners for prototypes, and develop standardized processes with respect to data, testing and evaluation, and cybersecurity. JAIC will use lessons learned from these initial projects to establish new processes and standards that will be repeatable across additional projects and immediately relevant to the Joint Force. This will be done in collaboration with partners across technology companies, consulting firms, academia, government labs, Federally Funded Research and Development Centers (FFRDC), services, and international partners.

To support the National Defense Strategy (NDS), the JAIC will catalyze and develop AI capabilities to enhance readiness and lethality and ensure DoD maintains an advantage over adversaries. JAIC will spearhead this unique opportunity to expand the competitive space across all domains with AI. JAIC efforts will directly contribute to increased military readiness towards a more lethal Joint Force, it will strengthen alliances and attract new partners by focusing on global problems, and it will enable Departmental reform to increase performance and affordability. JAIC will cultivate workforce talent by recruiting, developing, and retaining high-quality personnel to enable the development and delivery of AI. This will bring critical skills into the department by drawing outside expertise, and leveraging small companies, start-ups, and universities. Implementing AI at a speed of relevance hinges on the ability to integrate AI better than our adversaries, and the JAIC will enable the Department to adapt AI into how it fights. JAIC will focus on speed of delivery, continuous adaptation, and frequent capability delivery sprints. To fully realize this potential, the JAIC will pioneer AI approaches across the full scale of the global enterprise in a manner that is jointly interoperable with allies, partners, military Services, and agencies. Specifically, JAIC will identify and implement new organizational approaches, establish key AI building blocks and standards, develop and attract AI talent, and introduce new operational models that will enable DoD to systematically take advantage of AI at enterprise scale. The JAIC will fulfill the National Security Strategy and NDS to ensure conventional overmatch through dual-use commercial technology and partnered DoD-developed AI. The JAIC will collaborate with non-

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*	**Project (Number/Name)** JA1 *I Joint Artificial Intelligence Center (JAIC)*

governmental organizations, corporations, strategic influencers, and partners and allies. JAIC will seize the initiative to lead the world in the development and adoption of transformative defense AI solutions that are safe, ethical, and secure. JAIC will spearhead this effort, engaging with the best minds in government, the private sector, academia, and international community.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Joint Artificial Intelligence Center (JAIC)	0.000	-	208.834

Description: JAIC develops, tests, prototypes and demonstrates innovative AI, Machine Learning (ML), data infrastructure, and model/algorithm test and assessment capabilities to integrate AI capabilities across numerous domains and technical areas including maintenance and supply chain, personnel recovery, infrastructure assessment, geospatial monitoring during disaster, and cyber sense making. JAIC develops and evaluates integrated prototype technologies in realistic operating environments with DoD entities to assess the performance or cost reduction potential of applying such advanced technology to scale across multiple services. JAIC does this by aligning rapid prototype projects under NMIs and leverages existing commercial technology for DoD use, built upon a common architecture that enables the DoD to rapidly scale AI capability.

FY 2020 Plans:
JAIC will build a new NMI, Cyber Sense-making. The new NMI will provide artificial intelligence to the Cyber Mission Force to enable enterprise-scale sensemaking for cyberspace operations. Advanced adversarial Cyber actors infiltrate and operate undetected within the DoD Information Network (DODIN). Operating numerous disparate tools and processing the avalanche of data exceeds human cognitive ability for warfighters to detect and understand adversary activity. This hinders military operations, diminishes the security posture of the DODIN, and potentially compromises national strategic assets. Cyberspace operators and security professionals rely on static signature and rule based techniques combined with manual data correlation processes to detect known threats in the DODIN. They leverage disparate commercial and open source software to enumerate friendly Cyber terrain resulting in a myopic view of the Cyber environment. Due to the dynamic, contested, and congested nature of the DODIN, these capabilities fail to adequately integrate information to provide a Cyberspace Common Operating Picture. Currently, the Cyber Mission Force requires significant man-hours to manage, with varying degrees of success: detect advanced cyber threats in real time, identify adversarial use of compromised accounts, identify novel threat activity, and categorize user behavior trends and anomalies to detect adversary use of compromised accounts. Additionally, overall NMI efforts will augment current network mapping tools to accelerate and enrich Cyber terrain enumeration and improve situational awareness. Finally, this NMI will increase automation in malware and event detection/response to improve human sensing and optimize decision making to apply human judgement where it is most needed and apply machines to do repetitive analysis.

Rapid prototyping models will be developed to detect adversary use of compromised accounts; to understand the DODIN networks and system malware/event detections; and to enhance network mapping. These actions will decrease the time and human effort it currently takes to conduct such cyber efforts, while increasing the accuracy and effectiveness of such efforts at the speed of machine computing. It will return the cognitive bandwidth of cyber defense operators and allow them to better maintain

PE 0604532K: *Joint Artificial Intelligence Center (JA...*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 8

R-1 Line #196

Volume 5 - 26

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*	**Project (Number/Name)** JA1 *I Joint Artificial Intelligence Center (JAIC)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
awareness of, and exercise judgement in the cyber realm. This NMI will increase DODIN security, safeguard sensitive information, and give crucial time back to decision makers who can focus on strategic analysis and response, rather than making sense of adversaries' actions and deterring them. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase of +$208.834 from FY 2019 to FY 2020 is due to the functional transfer of JAIC from DoD CIO to DISA.			
Accomplishments/Planned Programs Subtotals	0.000	-	208.834

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

D. Acquisition Strategy
 The JAIC acquisition, management, and contracting strategy follows guidance outlined in the DoD 5000 series directives, Federal Acquisition Regulation (FAR) and FAR supplement policies and procedures. Management uses project management tools and meetings to ensure delivery of stated capabilities and performance criteria.

E. Performance Metrics
 JAIC performance metrics are measured through internal management controls and external assessments. Performance metrics include, but are not limited to time, money, realism, fidelity, and transition as defined below:
 • Time – Enable the warfighter to execute processes faster than current capabilities allow. This includes the ability to process more, or higher levels of relevant knowledge and apply human cognitive capital to higher order judgments on a faster pace than previously capable.
 • Money – Enable the warfighter to reduce duplication of effort and to prepare and execute events at a more effective and efficient cost than current capabilities allow. This includes finding efficiencies in system lifecycle management, supply chain, replacement and repair, and more accurate requisitions, saving critical limited fiscal resources to be applied appropriately.
 • Realism – Enable the warfighter to create an environment that is closer to the real world environment than current capabilities allow.
 • Fidelity – Ensure unity of effort throughout the Department and external stakeholders for national imperative focus areas, while catalyzing and accelerating AI capabilities beyond what was previously projected to be accomplished during that time period.
 • Transition – Select projects that have the greatest likelihood of adoption and transition to operational capabilities.

PE 0604532K: *Joint Artificial Intelligence Center (JA...*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 8

R-1 Line #196

Volume 5 - 27

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency														**Date:** March 2019		
Appropriation/Budget Activity 0400 *I* 7								**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*						**Project (Number/Name)** JA1 *I Joint Artificial Intelligence Center (JAIC)*		

Product Development ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Product Development	C/Various	TBD : TBD	-	-		-		208.834	Mar 2020	-		208.834	Continuing	Continuing	-
Subtotal			-	-		-		208.834		-		208.834	Continuing	Continuing	N/A

	Prior Years	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-	0.000	208.834	-	208.834	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*	**Project (Number/Name)** JA1 *I Joint Artificial Intelligence Center (JAIC)*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Joint Artificial Intelligence Center (JAIC)																												
Joint Artificial Intelligence Center (JAIC)									██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0604532K *I Joint Artificial Intelligence Center (JAIC)*	**Project (Number/Name)** JA1 *I Joint Artificial Intelligence Center (JAIC)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Artificial Intelligence Center (JAIC)				
Joint Artificial Intelligence Center (JAIC)	2	2020	4	2024

PE 0604532K: *Joint Artificial Intelligence Center (JA...*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 8

R-1 Line #196

Volume 5 - 30

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency									**Date:** March 2019		

Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I BA 7:* *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	750.929	58.235	62.814	64.122	-	64.122	62.364	61.644	63.201	63.840	Continuing	Continuing
T30: *MRTFB Test and Evaluation*	174.304	10.757	7.809	7.584	-	7.584	7.713	7.712	7.927	7.964	Continuing	Continuing
T40: *Major Range Test Facility Base Operations*	576.625	47.478	55.005	56.538	-	56.538	54.651	53.932	55.274	55.876	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	59.490	62.814	61.074	-	61.074
Current President's Budget	58.235	62.814	64.122	-	64.122
Total Adjustments	-1.255	0.000	3.048	-	3.048
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.928	-			
• Adjustment	-0.327	-	3.048	-	3.048

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208045K I *C4I Interoperability*	

Change Summary Explanation

The decrease of -$0.928 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs and -$0.327 is for the reduction costs by employing automation technologies to include cloud services to conduct testing and data analysis in the operational environment.

The increase of +$3.048 in FY 2020 will provide additional infrastructure, network bandwidth and instrumentation to support development and testing of enterprise systems and Cyber capabilities in a replicated DODIN environment (+$2.748). This increase is offset by a reduction required to offset civilian personnel requirements for departmental priorities and a transfer of 2 FTEs to the DISA Working Capital Fund in support of the Fourth Estate IT Optimization.

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 19

R-1 Line #204

Volume 5 - 32

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0208045K / C4I Interoperability				Project (Number/Name) T30 / MRTFB Test and Evaluation			
COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
T30: *MRTFB Test and Evaluation*	174.304	10.757	7.809	7.584	-	7.584	7.713	7.712	7.927	7.964	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.

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 19

R-1 Line #204

Volume 5 - 33

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

• Establishing the framework for the conduct of annual independent evaluations and the status of interoperability through DoD Interoperability Communications Exercises (DICE).
• Emulating a distributed Joint Task Force network, providing realism and operational significance during the assessments and evaluations of data integrity, interfacing and responsiveness coupled with efficient configuration tactics, techniques, and procedures.
• Including first responder local and federal communications as part of the task force.

As the only non-Service Operational Test Agency (OTA) within DoD, JITC conducts operational testing of IT/NSS under realistic conditions to determine the operational effectiveness, suitability, interoperability, and security; and independently assesses the operational impact of system issues on mission accomplishment. JITC is the OTA for DISA-managed programs, and also upon request serves as the OTA for other Agencies such as the Defense Logistics Agency, Department of Homeland Security, and the National Security Agency.

JITC designs Operational Test and Evaluation (OT&E) events to determine if IT/NSS meet user requirements, offering sustaining support services to users to assist Acquisition Program Managers with meeting their overall milestone objectives.

JITC focuses its efforts towards core T&E improvements, better T&E policy for IT/NSS and designing new test methodologies to better assess Enterprise Service systems, aligning with the Information Technology Service Management model evaluating fulfillment services for suitability.

The T&E project supports the strategy development and investment plans in support of maintaining, improving and operating the DISA Major Range and Test Facility Base (MRTFB). Specific goals for DISA's MRTFB each year are to:
• Integrate evolving technologies that are able to leverage efficiencies such as virtualization, enterprise elements such as Infrastructure as a Service and Platform as a Service, and the foundational Cyber assets mandated by the JIE.
• Expand test infrastructure and operations to allow for rapid, on-demand provisioning, and federation across the DoD and Cyber integration with enterprise environments.
• Design consistent, repeatable test methodologies that ensure efficient T&E on changing or emerging technologies.
• Provide T&E guidance/oversight to nearly 130 DISA programs, creating synergy and efficiencies across the large DISA IT portfolio, gaining insight in new technologies and commercial best practices.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: DoD's Joint Interoperability Certification Authority	9.837	6.889	6.664
Description: Plans and executes interoperability certifications for Department of Defense's (DoD)) Information Technology and National Security Systems (IT/NSS) by evaluating joint military operations, conformance to standards, and participating in developmental testing or executing purposefully planned Interoperability Test Events.			
FY 2019 Plans:			

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 19

R-1 Line #204

Volume 5 - 34

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019	
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / C4I Interoperability	Project (Number/Name) T30 / MRTFB Test and Evaluation	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Continue to evolve customer accessibility through enhanced T&E capabilities by employing automation technologies to include cloud services. Continue to reduce risk and identify/analyze trends by employing new technology and methodology to conduct data analysis in the operational environment. *FY 2020 Plans:* Continue to evolve customer accessibility through enhanced T&E capabilities by employing automation technologies to include cloud services. Continue to reduce risk and identify/analyze trends by employing new technology and methodology to conduct data analysis in the operational environment. *FY 2019 to FY 2020 Increase/Decrease Statement:* The decrease of -$0.225 from FY 2019 to FY 2020 is due to reduced costs resulting from employing automation technologies to include cloud services to conduct testing and data analysis in the operational environment.			
Title: Operational Test and Evaluation *Description:* Conduct operational testing of IT/NSS under realistic operational conditions to determine the operational effectiveness, suitability, interoperability, and security of a particular system. Independently assesses the operational impact of system issues on mission accomplishment. *FY 2019 Plans:* Will continue to enhance OT&E processes, procedures, training, and tools by increasing automation, data collection and management, and better analysis utilizing virtualization 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. *FY 2020 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* N/A	0.800	0.800	0.800
Title: Support to Warfighter *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 2019 Plans:*	0.120	0.120	0.120

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
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. *FY 2020 Plans:* 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* N/A			
Accomplishments/Planned Programs Subtotals	10.757	7.809	7.584

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%
 FY18 Actual: 100%
 FY19 Target: 90%
 FY20 Target: 90%

 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%
 FY18 Actual: 66%

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 19

R-1 Line #204

Volume 5 - 36

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T30 / *MRTFB Test and Evaluation*

FY19 Target: 90%
FY20 Target: 90%

3. Provide a interoperability certification letter to customers (Joint Staff (JS), COCOMS, OUSD (R&E), etc) no later than 60 days from the completion of the test event/effort.
Measure/Goal: 80%
FY18 Actual: 83%
FY19 Target: 80%
FY20Target: 80%

4. JITC surveys customers for each product that is delivered (Plan of Action and Milestones (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
FY18 Actual: 4.8
FY19 Target: 4.5
FY20 Target: N/A no longer reported on after FY19

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 19

R-1 Line #204

Volume 5 - 37

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency														**Date:** March 2019

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

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/T&M	Northop Grumman Mission System : FT Huachuca, AZ	36.487	-		-		-		-		-	0.000	36.487	-
Test and Evaluation	C/T&M	Interop Joint Venture : FT Huachuca, AZ	44.342	-		-		-		-		-	0.000	44.342	-
Test and Evaluation	C/T&M	Northop Grumman Technology : FT Huachuca, AZ	25.831	-		-		-		-		-	0.000	25.831	-
Test and Evaluation	C/Various	Various : Various	15.076	-		-		1.529	Oct 2019	-		1.529	Continuing	Continuing	-
Test and Evaluation	Option/ CPFF	ALION SCIENCE & TECH CORP : Various	0.008	0.018	Oct 2017	0.010	Oct 2018	-		-		-	0.000	0.036	-
Test and Evaluation	Option/ CPFF	AMERICAN SYSTEMS CORP : Various	0.129	0.217	Oct 2017	0.080	Oct 2018	-		-		-	0.000	0.426	-
Test and Evaluation	Option/ CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	0.570	0.838	Oct 2017	0.305	Oct 2018	-		-		-	0.000	1.713	-
Test and Evaluation	Option/ CPFF	OBERON ASSOCIATES : Various	0.109	0.176	Oct 2017	0.072	Oct 2018	-		-		-	0.000	0.357	-
Test and Evaluation	Option/ CPFF	TASC, INC : Various	1.887	3.223	Oct 2017	1.132	Oct 2018	-		-		-	0.000	6.242	-
Subtotal			124.439	4.472		1.599		1.529		-		1.529	Continuing	Continuing	N/A

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 19

R-1 Line #204

Volume 5 - 38

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency													**Date:** March 2019	
Appropriation/Budget Activity 0400 **/** 7						**R-1 Program Element (Number/Name)** PE 0208045K **/** C4I Interoperability					**Project (Number/Name)** T30 **/** MRTFB Test and Evaluation			

Management Services ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Managment Services	C/Various	Defense Information Systems Agency : Various	49.865	6.285	Oct 2017	6.210	Oct 2018	6.055	Oct 2019	-		6.055	Continuing	Continuing	-
Subtotal			49.865	6.285		6.210		6.055		-		6.055	Continuing	Continuing	N/A

			Prior Years	**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals			174.304	10.757		7.809		7.584		-		7.584	Continuing	Continuing	N/A

Remarks

PE 0208045K: C4I Interoperability
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 19

R-1 Line #204

Volume 5 - 39

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0208045K *I* C4I Interoperability	**Project (Number/Name)** T30 *I* MRTFB Test and Evaluation

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MRTFB Test and Evalauation																												
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems																										▓	▓	▓
Conduct Joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Link (TDL)																										▓	▓	▓
Operate 24/7 Interoperability Hotline																										▓	▓	▓
Provide Joint/Combined Interoperability Test support to Combatant Commanders																											▓	▓
Provide JIE Compliance Test and Evaluation framework and infrastructure																										▓	▓	▓
Provide Cyberspace Test and Evaluation framework and infrastructure																										▓	▓	▓
Plan and conduct the Defense Interoperability Communications Exercise (DICE)																											▓	▓

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
MRTFB Test and Evalauation																												
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Conduct Joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Link (TDL)	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Operate 24/7 Interoperability Hotline	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Provide Joint/Combined Interoperability Test support to Combatant Commanders	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / C4I Interoperability	**Project (Number/Name)** T30 / MRTFB Test and Evaluation

	FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Provide JIE Compliance Test and Evaluation framework and infrastructure																								
Provide Cyberspace Test and Evaluation framework and infrastructure																								
Plan and conduct the Defense Interoperability Communications Exercise (DICE)																								

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 11 of 19

R-1 Line #204

Volume 5 - 41

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Defense Information Systems Agency					**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7		**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*		**Project (Number/Name)** T30 *I MRTFB Test and Evaluation*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MRTFB Test and Evalauation				
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems	1	2017	4	2024
Conduct Joint interoperability test and certification on IT/NSS using the Joint Family of Tactical Data Link (TDL)	1	2017	4	2024
Operate 24/7 Interoperability Hotline	1	2017	4	2024
Provide Joint/Combined Interoperability Test support to Combatant Commanders	2	2017	4	2024
Provide JIE Compliance Test and Evaluation framework and infrastructure	1	2017	4	2024
Provide Cyberspace Test and Evaluation framework and infrastructure	1	2017	4	2024
Plan and conduct the Defense Interoperability Communications Exercise (DICE)	3	2017	1	2024

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 12 of 19

R-1 Line #204

Volume 5 - 42

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*					**Project (Number/Name)** T40 *I Major Range Test Facility Base Operations*		
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
T40: *Major Range Test Facility Base Operations*	576.625	47.478	55.005	56.538	-	56.538	54.651	53.932	55.274	55.876	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

The DISA MRTFB infrastructure:

• Encompasses two geographic locations (Ft. Huachuca, AZ; Ft. Meade, MD).

• 116K square feet of raised floor space comprised of multiple test environments and test networks supporting over 100 programs on an annual basis.

• Complies with multiple levels of security and is scaled to support approximately 1,000 annual testing events to evaluate the DoD's converged information environment, Cyber, Cloud services, Mobility, and National Security Systems (NSS).

• Encompasses a significant portfolio of reference implementations, test tools, and supporting IT systems to aid both test execution and data collection/analysis.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: MRTFB Improvements and Operations	47.478	55.005	56.538
Description: Information Technology and National Security Systems (IT/NSS), Command and Control (C2), Defense reform initiatives, and the Department of Defense's (DoD's) migration towards more agile development and acquisition of IT capabilities by providing Test and Evaluation (T&E) support, including infrastructure, testing capabilities and events, policies and processes to Regional Combatant Commands (COCOMS), Military Services, DoD Agencies, other Federal Government agencies, private industry, Coalition partners and allies. *FY 2019 Plans:* As an MRTFB, JITC will continue to operate the DISA IT Test infrastructure standarized 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			

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency
UNCLASSIFIED
Page 13 of 19
R-1 Line #204
Volume 5 - 43

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*	**Project (Number/Name)** T40 *I Major Range Test Facility Base Operations*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
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. *FY 2020 Plans:* As an MRTFB, JITC will continue to operate the DISA IT Test infrastructure standarized 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$1.533 from FY 2019 to FY 2020 will provide additonal infrastructure, network bandwidth and instrumentation to support development and testing of enterprise systems and Cyber capabilities in a replicated DODIN environment.			
Accomplishments/Planned Programs Subtotals	47.478	55.005	56.538

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

D. Acquisition Strategy
 A T&E Mission Support Services (MSS) cost plus and firm fixed price contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions. The T&E MSS contract provides maximum flexibility and allow for expansion and contraction of staff years as workload dictates. An additional contract is a Federal Preferential Sole Source Procurement set-aside which provides consolidated facilities support.

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%
FY 2018 Actual: 91%
FY 2019 Target: 95%
FY 2020 Target: 90%

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency
UNCLASSIFIED
Page 14 of 19
R-1 Line #204
Volume 5 - 44

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0208045K *I* C4I Interoperability	**Project (Number/Name)** T40 *I Major Range Test Facility Base Operations*

6. Complete new configuration additions (equipment installs) NLT 14 days after receipt of customer requirements form.
Measure/Goal: 90%
FY 2018 Actual: 50%
FY 2019 Target: 95%
FY 2020 Target: 90%

7. Availability of enterprise service test capabilities T&E enclave.
Measure/Goal: 95%
FY 2018 Actual: 100%
FY 2019 Target: 95%
FY 2020 Target: 95%

8. Availability of the Tactical Data Link Standard Conformance test tool to various DoD platforms (e.g., weapons systems).
Measure/Goal: 100%
FY 2018 Actual: 95%
FY 2019 Target: 95%
FY 2020 Target: 95%

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency
UNCLASSIFIED
Page 15 of 19
R-1 Line #204
Volume 5 - 45

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency														Date: March 2019
Appropriation/Budget Activity 0400 / 7				**R-1 Program Element (Number/Name)** PE 0208045K / C4I Interoperability					**Project (Number/Name)** T40 / Major Range Test Facility Base Operations					

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation 1	C/T&M	Northrop Grumman Mission System : Ft. Huachuca, AZ	75.279	-		-		-		-		-	0.000	75.279	-
Test and Evaluation 2	C/T&M	Interop Joint Venture : Ft. Huachuca, AZ	99.188	-		-		-		-		-	0.000	99.188	-
Test and Evaluation 3	C/T&M	Northrop Grumman Information Technology : Ft. Huachuca, AZ	49.746	-		-		-		-		-	0.000	49.746	-
Test and Evaluation 4	C/Various	VARIOUS - pending development of query : VARIOUS	54.481	-		-		-		-		-	0.000	54.481	-
Test and Evaluation 5	Option/CPFF	ALION SCIENCE & TECHNOLOGY CORP : Various	0.410	0.207	Oct 2017	-		-		-		-	0.000	0.617	-
Test and Evaluation 6	Option/CPFF	AMERICAN SYSTEMS COPR : Various	1.036	0.523	Oct 2017	-		-		-		-	0.000	1.559	-
Test and Evaluation 7	Option/CPFF	MANTECH TELECOMMUNICATIONS AND INFORMATION : Various	6.583	3.320	Oct 2017	-		-		-		-	0.000	9.903	-
Test and Evaluation 8	Option/CPFF	OBERON ASSOCIATES : Various	9.957	3.023	Oct 2017	-		-		-		-	0.000	12.980	-
Test and Evaluation 9	Option/CPFF	TASC, INC. : Various	2.626	1.325	Oct 2017	-		-		-		-	0.000	3.951	-
Test and Evaluation 10	Option/CPFF	BEACON GROUP SW, INC : Various	16.193	5.170	Oct 2017	7.711	Oct 2018	-		-		-	0.000	29.074	-
Test and Evaluation 11	Option/CPFF	Multiple : Various	-	-		13.001	Oct 2018	30.226	Oct 2019	-		30.226	Continuing	Continuing	Continuing
Test and Evaluation 12	C/CPFF	Various : Various	16.728	8.658	Oct 2017	8.961	Oct 2018	-		-		-	0.000	34.347	-

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency
UNCLASSIFIED
Page 16 of 19
R-1 Line #204
Volume 5 - 46

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency | **Date:** March 2019

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0208045K / C4I Interoperability	Project (Number/Name) T40 / Major Range Test Facility Base Operations

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			332.227	22.226		29.673		30.226		-		30.226	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	Various	Defense Information Systems Agency : Ft. Huachuca, AZ	244.398	25.252	Oct 2017	25.332	Oct 2018	26.312	Oct 2019	-		26.312	Continuing	Continuing	Continuing
Subtotal			244.398	25.252		25.332		26.312		-		26.312	Continuing	Continuing	N/A

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			576.625	47.478		55.005		56.538		-		56.538	Continuing	Continuing	N/A

Remarks

PE 0208045K: *C4I Interoperability*
Defense Information Systems Agency

UNCLASSIFIED
Page 17 of 19

R-1 Line #204

Volume 5 - 47

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0208045K *I C4I Interoperability*	**Project (Number/Name)** T40 *I Major Range Test Facility Base Operations*

	FY 2011				**FY 2012**				**FY 2013**				**FY 2014**				**FY 2015**				**FY 2016**				**FY 2017**			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Develop and Implement Interoperability test systems to support warfighters																											▉	▉

	FY 2018				**FY 2019**				**FY 2020**				**FY 2021**				**FY 2022**				**FY 2023**				**FY 2024**			
	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	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉	▉

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0208045K / *C4I Interoperability*	**Project (Number/Name)** T40 / *Major Range Test Facility Base Operations*

Schedule Details

Events	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Develop and Implement Interoperability test systems to support warfighters	1	2017	4	2024

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					PE 0301144K *I Joint/Allied Coalition Information Sharing*							

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	86.059	5.801	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
NND: *Multinational Information sharing*	86.059	5.801	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

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 Atlantic 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 prioritize 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.

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 9

R-1 Line #206

Volume 5 - 51

UNCLASSIFIED

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency			**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0301144K *I Joint/Allied Coalition Information Sharing*		

B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	6.104	0.000	0.000	-	0.000
Current President's Budget	5.801	0.000	0.000	-	0.000
Total Adjustments	-0.303	0.000	0.000	-	0.000
• Congressional General Reductions	-0.122	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.181	-			

Change Summary Explanation

The decrease in FY 2018 is due to the congressional general reduction Federally Funded Research & Development Centers (FFRDC) of -$0.122 and the decrease -$0.181 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency
UNCLASSIFIED
Page 2 of 9
R-1 Line #206
Volume 5 - 52

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 I 7				**R-1 Program Element (Number/Name)** PE 0301144K I *Joint/Allied Coalition Information Sharing*						**Project (Number/Name)** NND I *Multinational Information sharing*	
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
NND: *Multinational Information sharing*	86.059	5.801	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

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

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

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

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

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Multinational Information Sharing	5.801	-	-
Description: Through the CENTRIXS and Pegasus, the MNIS Program enables secure sharing of operational and intelligence information and enhances collaboration among US forces, most trusted allies and additional multinational partners. The MNIS			

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency
UNCLASSIFIED
Page 3 of 9
R-1 Line #206
Volume 5 - 53

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0301144K *I Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND *I Multinational Information sharing*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
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.			
Accomplishments/Planned Programs Subtotals	5.801	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/0301144K: *O&M, DW*	45.562	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
• Proc, DW/0301144K: *Proc, DW*	0.708	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

Remarks

D. Acquisition Strategy

Performance-based contracts are primarily used for this support. MNIS maximizes the use of competitive awards and uses various contract types, employs large and small businesses, 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:
-% of design, testing and integration activities for MNIS classified technology refresh projects complete (9 Nodes) – 100%

Performance Metric:
-Information Assurance (Classified)
FY18 Estimate: Expected to Meet / Actual: 100% Completed

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

Measure:
-Number of CFBLNet Exercises/Events hosted

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Performance Metric:
-Annual number of CFBLNet Exercises hosted ≥ 2 Exercises Hosted (Empire Challenge & Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX))
FY18 Estimate: Expected to Meet / Actual: 2 Exercises Completed

-Annual number of Test Bed Exercise ≥ 16 Test Events Hosted (Estimate): Met
FY18 Estimate: Expected to Meet / Actual: 100% Completed

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%
FY18 Estimate: Expected to Meet / Actual: 100% Completed

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 9

R-1 Line #206

Volume 5 - 55

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cross Domain Solutions Ops Capabilities Spt	C/CPFF	HAI/Raytheon : Alexandra, VA	11.781	-		-		-		-		-	0.000	11.781	-
Cross Domain Chat - develop & tech services	C/CPFF	Harris Corporation : Alexandria, VA	15.149	-		-		-		-		-	0.000	15.149	-
Cross Domain Solutions -- operational capabilities support	C/CPFF	CACI : Chantilly, VA	0.650	-		-		-		-		-	0.000	0.650	-
Subtotal			27.580	-		-		-		-		-	0.000	27.580	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Federally Funded Research Develop Center (FFRDC)	C/CPFF	MITRE : Arlington VA	9.128	0.329	Oct 2017	-		-		-		-	0.000	9.457	-
Program Support	C/CPFF	Ingenium and SAIC : Upper Marlboro & DC	1.522	-		-		-		-		-	0.000	1.522	-
Engineering Support	C/CPFF	Raytheon : Arlington, VA	9.580	-		-		-		-		-	0.000	9.580	-
DoD Services	MIPR	Various – SPAWAR and Pacific : Warfighting Ctr Hawaii	4.110	-		-		-		-		-	0.000	4.110	-
Project Planning and Managment	C/CPFF	Harris Corporation : Alexandria, VA	5.315	-		-		-		-		-	0.000	5.315	-
Engineering Support	C/CPFF	CACI : Chantilly, VA	1.068	-		-		-		-		-	0.000	1.068	-
Project Planning	C/CPFF	SPAWAR : San Diego	1.892	-		-		-		-		-	0.000	1.892	-
Engineering Support	C/CPIF	ARMDEC : Redstone Arsenal, AL	3.689	-		-		-		-		-	0.000	3.689	-

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 9

R-1 Line #206

Volume 5 - 56

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency					Date: March 2019							

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0301144K / Joint/Allied Coalition Information Sharing	Project (Number/Name) NND / Multinational Information sharing

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Classified	MIPR	---- : ----	9.069	-		-		-		-		-	0.000	9.069	-
Engineering Support	C/CPFF	BAH : McLean, VA	-	0.721	May 2018	-		-		-		-	0.000	0.721	-
Engineering T&E Hardware	C/CPFF	Primere : Primere	-	0.612	Jul 2018	-		-		-		-	0.000	0.612	-
Coalition T&E	C/CPFF	JITC : Ft. Meade	-	0.769	Jan 2018	-		-		-		-	0.000	0.769	-
SETA Engineering	C/FFP	BAH : McLean	-	0.600	Sep 2018	-		-		-		-	0.000	0.600	-
Engineering Support	MIPR	Various - SPAWAR and Pacific Warfighting Ctr : Hawaii	-	2.576	Nov 2017	-		-		-		-	0.000	2.576	-
Engineering Support	C/CPFF	Soliel : Vienna, VA	-	0.194	Jul 2018	-		-		-		-	0.000	0.194	-
Subtotal			45.373	5.801		-		-		-		-	0.000	51.174	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Coalition Lab T&E, IAVA STIG	MIPR	JITC : Fort Meade, MD	13.106	-		-		-		-		-	0.000	13.106	-
Subtotal			13.106	-		-		-		-		-	0.000	13.106	N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	86.059	5.801		0.000		-	-	-	0.000	91.860	N/A

Remarks

PE 0301144K: Joint/Allied Coalition Information Shari...
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 9

R-1 Line #206

Volume 5 - 57

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0301144K *I Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND *I Multinational Information sharing*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MULTINATIONAL INFORMATION SHARING (MNIS) - Current Systems																												
CENTRIX Capability																									█	█	█	█
CMNT																									█	█	█	█
JITC Testing Security/C&A																									█	█	█	█
CFBLNet																									█	█	█	█
UIS																									█	█	█	█

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
MULTINATIONAL INFORMATION SHARING (MNIS) - Current Systems																												
CENTRIX Capability	█	█	█	█																								
CMNT	█	█	█	█																								
JITC Testing Security/C&A	█	█	█	█																								
CFBLNet	█	█	█	█																								
UIS	█	█	█	█																								

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0301144K / *Joint/Allied Coalition Information Sharing*	**Project (Number/Name)** NND / *Multinational Information sharing*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MULTINATIONAL INFORMATION SHARING (MNIS) - Current Systems				
CENTRIX Capability	1	2017	4	2018
CMNT	1	2017	4	2018
JITC Testing Security/C&A	1	2017	4	2018
CFBLNet	1	2017	4	2018
UIS	1	2017	4	2018

PE 0301144K: *Joint/Allied Coalition Information Shari...*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 9

R-1 Line #206

Volume 5 - 59

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0302016K *I National Military Command System-Wide Support*						

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	7.828	1.863	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
S32: *NMCS Command Center Engineering*	7.828	1.863	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

A. Mission Description and Budget Item Justification

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

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	1.863	0.000	0.000	-	0.000
Current President's Budget	1.863	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation
No vertical change statement required.

PE 0302016K: *National Military Command System-Wide Su...*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 7

R-1 Line #209

Volume 5 - 61

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400 I 7				R-1 Program Element (Number/Name) PE 0302016K I National Military Command System-Wide Support					Project (Number/Name) S32 I NMCS Command Center Engineering		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
S32: *NMCS Command Center Engineering*	7.828	1.863	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The 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)	FY 2018	FY 2019	FY 2020
Title: NMCS Systems Engineering	1.863	-	-
Accomplishments/Planned Programs Subtotals	1.863	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/PE 0302016K: *O&M, DW*	4.306	5.882	5.999	-	5.999	6.095	6.163	6.317	-	Continuing	Continuing

Remarks

PE 0302016K: *National Military Command System-Wide Su...*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 7

R-1 Line #209

Volume 5 - 62

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 I 7	R-1 Program Element (Number/Name) PE 0302016K I National Military Command System-Wide Support	Project (Number/Name) S32 I NMCS Command Center Engineering

D. Acquisition Strategy

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

E. Performance Metrics

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

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

PE 0302016K: *National Military Command System-Wide Su...*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 7

R-1 Line #209

Volume 5 - 63

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency													**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0302016K *I National Military Command System-Wide Support*						**Project (Number/Name)** S32 *I NMCS Command Center Engineering*				

Support ($ in Millions)					**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Engineering Support	C/CPFF	Raytheon E-Sys : Arlington VA	7.828	1.863	Jan 2018	-		-		-		-	0.000	9.691	-
Subtotal			7.828	1.863		-		-		-		-	0.000	9.691	N/A

		Prior Years	**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals		7.828	1.863		0.000		-		-		-	0.000	9.691	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency | **Date:** March 2019

Appropriation/Budget Activity 0400 *I* 7	R-1 Program Element (Number/Name) PE 0302016K *I National Military Command System-Wide Support*	Project (Number/Name) S32 *I NMCS Command Center Engineering*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NMCS																												
Maintenance/Update of NMCS Reference Guide (ongoing-real-time)																									███			
Maintenance/Update of the Primary Control Center (PCC) Toolkit																									███			
Completion of Study: Network Computer Communication (NC2) over Internet Protocol (IP)																									███			
Completion of Super High Frequency (SHF) Upgrade																									███			
Inspection/Maintenance of High-Altitude Electromagnetic Pulse (HEMP) sites in the National Capital Region (NCR)																												█
Moderinize Non-Secure Conferencing Networks																											█	
Implement PCC Dashboard																											█	
Milstar Cryptological Modernization																											█	

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
NMCS																												
Maintenance/Update of NMCS Reference Guide (ongoing-real-time)	███	██																										
Maintenance/Update of the Primary Control Center (PCC) Toolkit	██																											

PE 0302016K: *National Military Command System-Wide Su...*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 7

R-1 Line #209

Volume 5 - 65

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Completion of Study: Network Computer Communication (NC2) over Internet Protocol (IP)																												
Completion of Super High Frequency (SHF) Upgrade																												
Inspection/Maintenance of High-Altitude Electromagnetic Pulse (HEMP) sites in the National Capital Region (NCR)																												
Moderinize Non-Secure Conferencing Networks																												
Implement PCC Dashboard																												
Milstar Cryptological Modernization																												

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0302016K *I National Military Command System-Wide Support*	**Project (Number/Name)** S32 *I NMCS Command Center Engineering*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NMCS				
Maintenance/Update of NMCS Reference Guide (ongoing-real-time)	1	2017	4	2018
Maintenance/Update of the Primary Control Center (PCC) Toolkit	1	2017	2	2018
Completion of Study: Network Computer Communication (NC2) over Internet Protocol (IP)	1	2017	2	2018
Completion of Super High Frequency (SHF) Upgrade	1	2017	1	2018
Inspection/Maintenance of High-Altitude Electromagnetic Pulse (HEMP) sites in the National Capital Region (NCR)	4	2017	4	2018
Moderinize Non-Secure Conferencing Networks	4	2017	1	2018
Implement PCC Dashboard	4	2017	1	2018
Milstar Cryptological Modernization	4	2017	4	2018

PE 0302016K: *National Military Command System-Wide Su...*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 7

R-1 Line #209

Volume 5 - 67

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

Appropriation/Budget Activity
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0302019K I *Defense Info. Infrastructure Engineering and Integration*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	145.582	20.059	16.121	15.798	-	15.798	16.226	16.453	16.787	17.000	Continuing	Continuing
E65: *Modeling and Simulation*	92.243	11.409	4.343	3.896	-	3.896	4.071	4.154	4.243	4.322	Continuing	Continuing
T62: *DoD Information Network (DODIN) Systems Engineering and Support*	53.339	8.650	11.778	11.902	-	11.902	12.155	12.299	12.544	12.678	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.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 19

R-1 Line #210

Volume 5 - 69

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency			**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*		
B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	21.564	16.561	15.719	-	15.719
Current President's Budget	20.059	16.121	15.798	-	15.798
Total Adjustments	-1.505	-0.440	0.079	-	0.079
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.634	-0.440			
• Adjustment	-0.871	-	0.079	-	0.079

Change Summary Explanation

The decrease in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs (-$0.634) and due to completion of the major phases of two projects, QUICKWIN and LIFI. QUICKWIN delivered tablets with the same DISANet office automation solution, functionality, and security as DISANet laptops, including implementation of the DoD PKI Purebred derived credential concept instead of CAC cards, with key attestation and root of trust (RoT) (-$0.871).

The decrease in FY 2019 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs (-$0.440).

The increase of +$0.079 in FY 2020 is due to the expansion of technical system engineering reviews and oversight of DISA and DoD enterprise products and services for Return on Investment (ROI) analysis, analysis of alternatives, and mission partner support.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
 Defense Information Systems Agency

UNCLASSIFIED
 Page 2 of 19

R-1 Line #210

Volume 5 - 70

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 / 7					**R-1 Program Element (Number/Name)** PE 0302019K / Defense Info. Infrastructure Engineering and Integration						**Project (Number/Name)** E65 / Modeling and Simulation	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
E65: *Modeling and Simulation*	92.243	11.409	4.343	3.896	-	3.896	4.071	4.154	4.243	4.322	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 2018	FY 2019	FY 2020
Title: Modeling and Simulation	11.409	4.343	3.896

FY 2019 Plans:
Will develop modeling and simulation tools to analyze planned changes to the DISN optical and Internet Protocol (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.

FY 2020 Plans:
Will provide architecture and model development to Cyber Development architecture for developing future DODIN cyber architecture and cyber portfolio management. This task will develop DoD Cybersecurity Analysis and Review (DoDCAR) analysis

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 19

R-1 Line #210

Volume 5 - 71

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
tools for implementing DoDCAR based cyber architecture and system assessment methods. This effort 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. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The decrease of -$0.447 is due to the completion of pilot assessments on innovative and emerging technologies.			
Accomplishments/Planned Programs Subtotals	11.409	4.343	3.896

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• PE 0302019K: *Operation & Maintenance, Defense-Wide*	15.606	16.437	16.579	-	16.579	16.911	-	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

EWSE uses contractors to assist/supplement the Government lead/team for technical activities. Subject matter experts in both large and small businesses are sought for the engineering support. Firm fixed price contracts with one option year are typically used in open competition. Furthermore, technical work with Federally Funded Research and Development Centers (FFRDCs) such as MITRE and MIT Lincoln Lab are established and coordinated when the Government can leverage their expertise and R&D in the key technology.

Modeling and Simulation uses a range of contractors for modeling support to the various projects. Contractors range from small to large business, predominantly using open competition methods and Firm Fixed Price (FFP) tasks and utilizing multi-year (base plus option years) contracts where possible. Support includes network modeling tool and processes development to adapt to ever-evolving OSD/DISA programs and projects, analyses, capacity planning, and network redesign using the models. Some specific support (e.g., integration with proprietary software) will require contracting with OPNET (e.g., sole source). FFRDCs are also considered depending upon the task.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 19   R-1 Line #210

Volume 5 - 72

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

E. Performance Metrics

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

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

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

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

FY 2018 planned target: Will complete 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations. / Actual: Completed 2 technical studies, 6 engineering artifacts and 2 concept demonstrations.
FY 2019 planned target: Will complete 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.
FY 2020 planned target: Will complete 2 technical studies, 6 engineering artifacts, and 2 concept demonstrations.

The Modeling and Simulation project provides architecture, systems engineering and E2E analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Ongoing beneficiaries of these capabilities include DoD Enterprise Activities, the DODIN and DISA applications, as well as engineering capabilities support to programs and projects to address technical and engineering solutions to activities such as information assurance and cyber security; mobility and cloud technologies and warfighter and mission support activities.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 19

R-1 Line #210

Volume 5 - 73

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency | | | | | | | | | | | | | | Date: March 2019 |

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 0302019K / Defense Info. Infrastructure Engineering and Integration

Project (Number/Name)
E65 / Modeling and Simulation

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	SS/FFP	OPNET Tech, Inc : Bethesda, MD	8.506	1.449	Aug 2018	0.342	Oct 2018	0.124	Feb 2020	-		0.124	Continuing	Continuing	Continuing
Product Development 2	C/CPFF	APPTIS : Chantilly, VA	1.822	1.812	Aug 2018	0.418	Oct 2018	-		-		-	Continuing	Continuing	Continuing
Product Development 3	SS/FFP	Falls Church, VA : Falls Church, VA	1.312	-		-		-		-		-	0.000	1.312	-
Product Development 4	C/FFP	Booz Allen, Hamilton : McLean, VA	4.333	0.648	Aug 2018	0.250	Oct 2018	0.120	Feb 2020	-		0.120	Continuing	Continuing	Continuing
Product Development 5	C/FFP	NRL : Washington, DC	0.100	-		-		-		-		-	0.000	0.100	-
Product Development 6	C/CPFF	Soliel, LLC : Reston, VA	3.862	-		-		-		-		-	0.000	3.862	-
Product Development 7	C/FFP	COMPTEL : Arlington, VA	2.805	-		-		-		-		-	0.000	2.805	-
Product Development 8	C/CPFF	COMPTEL : Arlington, VA	0.926	-		-		-		-		-	0.000	0.926	-
Product Development 9	C/CPFF	MIT Lincoln Labs : Cambridge, MA	11.439	1.860	Dec 2017	-		-		-		-	0.000	13.299	-
Product Development 10	MIPR	Various : Various	9.501	1.767	Dec 2017	-		-		-		-	0.000	11.268	-
Enterprise Wide Systems Engineering 11	C/FFP	Northrop Grumman : Fairfax, VA	1.784	-		-		-		-		-	0.000	1.784	-
Clear Sky Pilot	C/CPFF	AFRL Terremark : Various	24.083	-		-		-		-		-	0.000	24.083	-
Narus	C/CPFF	AFRL : Rome, NY	1.450	-		-		-		-		-	0.000	1.450	-
Cyber Accelerator	C/CPFF	DTIC : Alexandria, VA	7.516	-		-		-		-		-	0.000	7.516	-
Commercial Integration Demonstration	C/CPFF	DTIC : Alexandria, VA	2.750	-		-		-		-		-	0.000	2.750	-
Web Content Filtering: Perimeter Defense Integration	C/FFP	Oberon Associates : Ft. Meade, MD	1.854	-		-		-		-		-	0.000	1.854	-

PE 0302019K: Defense Info. Infrastructure Engineering...
Defense Information Systems Agency
UNCLASSIFIED
Page 6 of 19
R-1 Line #210
Volume 5 - 74

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency												Date: March 2019		

Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 0302019K / Defense Info. Infrastructure Engineering and Integration	Project (Number/Name) E65 / Modeling and Simulation

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Host Based Security Ops Assessment	C/FFP	Summit Technologies, Inc : Ft Meade, MD	0.700	-		-		-		-		-	0.000	0.700	-
Secure Configuration Management Ops Assessment	C/FFP	Cyber Security research and Solutions Corp : Ft Meade	0.964	-		-		-		-		-	0.000	0.964	-
Product Development 11	C/CPFF	Johns Hopkins University Applied Physics : Laurel, MD	0.450	0.350	Oct 2017	0.141	Oct 2018	-		-		-	0.000	0.941	-
Engineering Technical Services	MIPR	Axom Technologies : Fort Meade	0.502	0.478	Oct 2017	0.201	Oct 2018	-		-		-	0.000	1.181	-
Requirements Analysis/ Program Management: Civilian Pay	MIPR	Various : Various	1.445	0.092	Oct 2017	0.072	Oct 2018	0.520	Feb 2020	-		0.520	Continuing	Continuing	Continuing
Cloud Hosted Shared Services	C/FFP	Nisga's Data Systems LLC : Herndon, VA	1.350	-		-		-		-		-	0.000	1.350	-
Cloud/ Gateway Pilot	C/FFP	Alvarez and Associates : Tysons Corner, VA	0.304	-		-		-		-		-	0.000	0.304	-
Cloud/ Gateway Pilot	C/FFP	BY Light Professional IT Services : : Arlington, VA	0.413	-		-		-		-		-	0.000	0.413	-
		Subtotal	90.171	8.456		1.424		0.764		-		0.764	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IP Network Modeling	SS/FFP	Riverbed : Bethesda, MD	-	1.056	Sep 2018	1.200	Sep 2019	1.576	Sep 2020	-		1.576	Continuing	Continuing	-

PE 0302019K: Defense Info. Infrastructure Engineering...
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 19

R-1 Line #210

Volume 5 - 75

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency											**Date:** March 2019		
Appropriation/Budget Activity 0400 *I* 7						**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*					**Project (Number/Name)** E65 *I Modeling and Simulation*		

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JCSS/JRSS Modeling	C/FFP	Booz Allen, Hamilton : McLean, VA	-	1.131	May 2018	1.471	May 2019	1.323	May 2020	-		1.323	Continuing	Continuing	-
JRSS Modeling	C/FFP	IPKEYS : Annapolis Junction, MD	-	0.373	Mar 2018	-		-		-		-	0.000	0.373	-
E2E Performance	C/FFP	Tapestry : Chambersburg, PA	-	0.251	Mar 2018	-		-		-		-	0.000	0.251	-
E2E Performance	C/FFP	Various : Various	-	0.142		0.248	Oct 2018	0.233	Oct 2019	-		0.233	Continuing	Continuing	-
Subtotal			-	2.953		2.919		3.132		-		3.132	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	SS/CPFF	Comptel : Arlington, VA	2.072	-		-		-		-		-	0.000	2.072	-
Subtotal			2.072	-		-		-		-		-	0.000	2.072	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	92.243	11.409	4.343	3.896	-	3.896	Continuing	Continuing	N/A

Remarks

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 19

R-1 Line #210

Volume 5 - 76

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K / *Defense Info. Infrastructure* *Engineering and Integration*	**Project (Number/Name)** E65 / *Modeling and Simulation*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Horizontal Engineering																												
Horizontal Engineering																								█	█	█	█	█
Modeling and Simulation Applications																												
Modeling and Simulation Applications																								█	█	█	█	█

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Horizontal Engineering																												
Horizontal Engineering	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Modeling and Simulation Applications																												
Modeling and Simulation Applications	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 19

R-1 Line #210

Volume 5 - 77

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** E65 *I Modeling and Simulation*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Horizontal Engineering				
Horizontal Engineering	1	2017	4	2024
Modeling and Simulation Applications				
Modeling and Simulation Applications	1	2017	4	2024

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 10 of 19

R-1 Line #210

Volume 5 - 78

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7					**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*				**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*			
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
T62: *DoD Information Network (DODIN) Systems Engineering and Support*	53.339	8.650	11.778	11.902	-	11.902	12.155	12.299	12.544	12.678	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 Application Programming Interfaces (APIs) and/or abstractions and global standards for storage services; analytic platform performance baselines of emerging commercial analytic platform products; advanced approaches to Continuity of Operations (COOP) in a hybrid cloud environment; and the next generation software defined networks for automating and virtualizing the DODIN. The Agency's internal innovation suggestion program, DISAruptive, previously resourced by available government civilian time, will be revamped in FY2019 with relaunch by FY20 to deliver technical expertise and including training for potential innovators and innovation suggestion technical support including limited test conduct, instrumentation, or test materials.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 11 of 19

R-1 Line #210

Volume 5 - 79

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Department of Defense Information Network (DODIN) Systems Engineering and Support	8.650	11.778	11.902
FY 2019 Plans: 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. Develop revision to DISAruptive process, develop training support curriculum, and update user portal. *FY 2020 Plans:* Perform discovery, research, development and experimentation of emerging and commercial technologies to fill capability shortfalls and technology gaps across the Future Years Defense Program (FYDP). Identify gaps/shortfalls, pursues leading innovative solutions from industry, academia, and the Federal sector, and engages industry partners for commercial best practices. Develop 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). Early identification of technology need and explores, develops, and delivers recommended emerging technologies to the DISA Requirements & Analysis Office. Operationalize DISAruptive enhancements, begin training support curriculum, and begin R&D support to innovative ideas received through the DISAruptive portal. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$0.124 from FY2019 to FY2020 is due to innovation identification and integration.			
Accomplishments/Planned Programs Subtotals	8.650	11.778	11.902

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 12 of 19

R-1 Line #210

Volume 5 - 80

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/PE 0302019K: *Operation & Maintenance, Defense-Wide*	2.773	2.814	2.899	-	2.899	2.962	3.035	-	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

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

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 2018 Target: 12 Assessed and 8 transitioned / Actual: 12 Assessed and 8 transitioned.
FY 2019 Target: 12 Assessed and 8 transitioned.
FY 2020 Target: 12 Assessed and 8 transitioned.

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency
UNCLASSIFIED
Page 13 of 19
R-1 Line #210
Volume 5 - 81

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency												Date: March 2019		

Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0302019K / Defense Info. Infrastructure Engineering and Integration				Project (Number/Name) T62 / DoD Information Network (DODIN) Systems Engineering and Support						

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Engineering and Technical Services	FFRDC	MITRE : McLean, VA	11.410	1.500	Oct 2017	1.323	Oct 2018	1.323	Oct 2019	-		1.323	Continuing	Continuing	Continuing
Industry Tech Res	C/FFP	Gartner : Various	0.249	-		-		-		-		-	0.000	0.249	-
GIG Technical Insertion Engineering	C/FFP	SRA, Inc. : Fairfax, VA	1.211	-		-		-		-		-	0.000	1.211	-
Product Development	C/Various	Raytheon : Various	1.601	-		-		-		-		-	0.000	1.601	-
DAMA-C	MIPR	Defense Micro-electronics Activity : Various	11.794	-		-		-		-		-	0.000	11.794	-
Thin Engineering Support	MIPR	MIT Lincoln Labs : Lexington, MA	4.260	-		-		-		-		-	0.000	4.260	-
Engineering and Technical Support	C/FFP	Moya Technologies, Inc. : Various	1.212	-		-		-		-		-	0.000	1.212	-
Engineering Technical Services	MIPR	Various : Chambersburg, PA	3.315	-		1.084	Jul 2019	2.000	Jan 2020	-		2.000	Continuing	Continuing	Continuing
Product Development	C/FFP	Science and Technology Associates, Inc : Arlington, VA	2.091	-		-		-		-		-	0.000	2.091	-
Product Development	MIPR	SPAWAR : Charleston, SC	0.376	-		-		-		-		-	0.000	0.376	-
Product Development	MIPR	NSA : Ft. Meade, MD	0.691	-		-		-		-		-	0.000	0.691	-
Engineering Technical Services	C/FFP	TWM : Falls Church, VA	0.202	-		-		-		-		-	0.000	0.202	-
Product Development	C/FFP	SOLERS : Arlington, VA	2.373	0.650	Jul 2018	-		-		-		-	0.000	3.023	-
Product Development	C/FFP	Booz Allen Hamilton : McLean, VA	0.500	0.562	Jan 2018	-		-		-		-	0.000	1.062	-
Product Development	MIPR	JITC : Ft. Meade, MD	0.351	-		-		-		-		-	0.000	0.351	-

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 14 of 19

Volume 5 - 82
R-1 Line #210

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency												Date: March 2019	

Appropriation/Budget Activity 0400 I 7							R-1 Program Element (Number/Name) PE 0302019K I Defense Info. Infrastructure Engineering and Integration				Project (Number/Name) T62 I DoD Information Network (DODIN) Systems Engineering and Support		

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Engineering Technical Services	MIPR	Various : Ft. Meade, MD	3.953	0.528	Oct 2017	-		-		-		-	0.000	4.481	-
Engineering Technical Services	C/Various	IV2: IT Consulting Services, LLC : Jackson, WY	1.674	-		-		-		-		-	0.000	1.674	-
Engineering Technical Services	C/FFP	Information Assurance TWM Follow On : Various	0.741	-		-		-		-		-	0.000	0.741	-
Engineering Technical Services	C/CPFF	TIE NEMS: B&D Consulting : Various	0.564	-		-		-		-		-	0.000	0.564	-
Engineering Technical Services	C/Various	Tapestry Technologies, INC : Various	1.637	1.536	Mar 2018	-		-		-		-	0.000	3.173	-
Management Services - Civilian Pay	Various	Various : Ft. Meade, MD	3.134	3.294	Oct 2017	-		-		-		-	0.000	6.428	-
Engineering Technical Services	C/FFP	PMPC-Itility LLC : Ft. Meade, MD	-	0.580	Mar 2018	0.227	Mar 2019	0.229	Mar 2020	-		0.229	Continuing	Continuing	Continuing
Information Assurance	C/CPFF	Tapestry Tech : Chambersburg, PA	-	-		0.583	Jan 2019	0.600	Jan 2020	-		0.600	Continuing	Continuing	Continuing
Sys Engineering	C/CPFF	Various : Ft. Meade, MD	-	-		3.650	Mar 2019	2.124	Mar 2020	-		2.124	Continuing	Continuing	Continuing
Management Services - Civilian Pay	C/CPFF	Various : Ft. Meade	-	-		4.911	Oct 2018	4.897	Oct 2019	-		4.897	Continuing	Continuing	Continuing
Program Management and Knowledge Management	C/FFP	TBD : TBD	-	-		-		0.229	Mar 2020	-		0.229	Continuing	Continuing	Continuing
(DODIN) Systems Engineering and Support	C/FFP	TBD : TBD	-	-		-		0.500	Mar 2020	-		0.500	Continuing	Continuing	-
		Subtotal	53.339	8.650		11.778		11.902		-		11.902	Continuing	Continuing	N/A

	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	53.339	8.650		11.778		11.902		-		11.902	Continuing	Continuing	N/A

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 15 of 19

R-1 Line #210

Volume 5 - 83

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency									**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*			**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*		

	Prior Years	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**

Remarks

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 16 of 19

R-1 Line #210

Volume 5 - 84

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Technical Direction Agent (TDA)																												
Technical Direction Agent (TDA)																									███	███	███	
Engineering Support																												
Engineering Support																									███	███	███	
Industry/University Technical Research																												
Industry/University Technical Research																									███	███	███	
Technology Assessments																												
Technology Assessments																									███	███	███	
DISA Ruptive																												
DISA Ruptive																												
Research and Development for technical solutions																												
Research and Development for technical solutions																												

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Technical Direction Agent (TDA)																												
Technical Direction Agent (TDA)	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Engineering Support																												
Engineering Support	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Industry/University Technical Research																												
Industry/University Technical Research	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Technology Assessments																												
Technology Assessments	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency																									Date: March 2019			

Appropriation/Budget Activity 0400 *I* 7	R-1 Program Element (Number/Name) PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	Project (Number/Name) T62 *I DoD Information Network (DODIN) Systems Engineering and Support*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
DISA Ruptive																												
DISA Ruptive												█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
Research and Development for technical solutions																												
Research and Development for technical solutions								█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 18 of 19

R-1 Line #210

Volume 5 - 86

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0302019K *I Defense Info. Infrastructure Engineering and Integration*	**Project (Number/Name)** T62 *I DoD Information Network (DODIN) Systems Engineering and Support*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Technical Direction Agent (TDA)				
Technical Direction Agent (TDA)	1	2017	4	2023
Engineering Support				
Engineering Support	1	2017	4	2023
Industry/University Technical Research				
Industry/University Technical Research	1	2017	4	2023
Technology Assessments				
Technology Assessments	1	2017	4	2023
DISA Ruptive				
DISA Ruptive	4	2020	3	2024
Research and Development for technical solutions				
Research and Development for technical solutions	4	2019	3	2024

PE 0302019K: *Defense Info. Infrastructure Engineering...*
Defense Information Systems Agency

UNCLASSIFIED
Page 19 of 19

R-1 Line #210

Volume 5 - 87

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency											**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0303126K I *Long-Haul Communications - DCS*							
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	270.497	23.090	14.353	11.166	-	11.166	11.891	11.681	11.923	12.144	Continuing	Continuing
PC01: *Presidential and National Voice Conferencing/*	96.558	5.262	3.047	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
T82: *DISN Systems Engineering Support*	173.939	17.828	11.306	11.166	-	11.166	11.891	11.681	11.923	12.144	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

DoD Mobility: The Mobility Program will lead the development of an Enterprise Solution to support Controlled Unclassified Information (CUI) and leverage commercial carrier infrastructure to provide entry points for both classified and unclassified wireless capabilities. Continued evolution and expansion, within the Department, of the DoD Mobility program will allow for increased mobile services in direct support of the warfighter and the COCOMs.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency			**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*		

B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	15.428	14.769	14.174	-	14.174
Current President's Budget	23.090	14.353	11.166	-	11.166
Total Adjustments	7.662	-0.416	-3.008	-	-3.008
• Congressional General Reductions	-0.050	-0.416			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.190	-			
• Adjustment	8.902	-	-3.008	-	-3.008

Change Summary Explanation

Increase in FY 2018 of +$7.662 IS due to the increase to PNVC for radiation and survivable testing requirements for airborne version of the baseband interface group crypto, integration, security and software updates (+$6.416) and an increase of +$2.486 to fund Milestone 4 & 5 of Assured Identity which supports prototype demonstration and assigned attributes (dedicated Security, device attestation, pilot device configuration & purebred application enhancements) for granting mobile access to DoD mission critical information and information sharing systems. These increases were offset by a decrease of -$1.190 which reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs and a congressional general reduction for Federally Funded Research & Development Centers (FFRDC) of -$0.050.

Decrease in FY 2019 of -$0.416 is due to the congressional general reduction Federally Funded Research & Development Centers (FFRDC).

Decrease in FY 2020 of -$3.008 due primarily to the functional transfer of PNVC to the Air Force.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency											**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*					**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*			
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
PC01: *Presidential and National Voice Conferencing/*	96.558	5.262	3.047	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Presidential and National Voice Conferencing (PNVC) *Description:* Presidential and National Voice Conferencing (PNVC) Systems Engineering conduct analyses for continuity of NEADN voice conferencing for national/military leaders through PNVC deployment. Program continues engineering, technical analysis, development, and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders. *FY 2019 Plans:* 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* The decrease of -$3.047 from FY 2019 to FY 2020 is attributed to the functional transfer of PNVC to the Air Force.	5.262	3.047	-
Accomplishments/Planned Programs Subtotals	5.262	3.047	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• Procurement, DW/PE 0303126K: *Procurement, Defense-Wide*	1.246	1.386	-	-	-	-	-	-	-	-	-

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 21

R-1 Line #211

Volume 5 - 91

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost

Remarks
 N/A

D. Acquisition Strategy

 The audio equipment development activities are incorporated into the sole source DRSN sustainment contract. For the development of the Baseband Interface Group (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.

 Performance Metrics:

 Project Support Deliverables received on time

 FY 2018 (expected result): 100% / Actual: 100%
 FY 2019 (expected result): 100%

 Product Deliverable Milestones completed on time

 FY 2018 (expected result): 100% / Actual: 100%
 FY 2019 (expected result): 100%

 Successfully Tested Requirements:

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 21

R-1 Line #211

Volume 5 - 92

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*

FY 2018 (expected result): 95% / Actual: 95%
FY 2019 (expected result): 95%

Number of Critical Trouble Reports greater than 6 months old

FY 2018 (expected result): Less than 4 / Actual: 8
FY 2019 (expected result): Less than 4

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 21

R-1 Line #211

Volume 5 - 93

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency													**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 7							**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*					**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BIG Development Preparation	MIPR	NSA : Various	36.206	-		-		-		-		-	0.000	36.206	-
MSD-III Development	C/T&M	Raytheon : Largo, FL	18.479	-		-		-		-		-	0.000	18.479	-
PNVC Baseband Equipment	Various	Various : Various	9.300	-		-		-		-		-	0.000	9.300	-
Systems Engineering	FFRDC	MITRE : McLean, VA	0.423	-		-		-		-		-	0.000	0.423	-
PNVC Baseband Airborne variant ECP	C/CPFF	Raytheon : Largo, FL	16.880	-		-		-		-		-	0.000	16.880	-
		Subtotal	81.288	-		-		-		-		-	0.000	81.288	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PNVC Software enhancements	C/CPFF	Raytheon : Florida	1.999	-		0.785	Feb 2019	-		-		-	0.000	2.784	-
PNVC Software enhancements	C/CPFF	General Dynamics : NSA	2.889	2.527	Jun 2018	0.562	Feb 2019	-		-		-	0.000	5.978	-
Systems Engineering	C/CPFF	Booz Allen Hamilton : McLean, VA	4.015	0.852	Mar 2018	0.900	Mar 2019	-		-		-	0.000	5.767	-
Systems Engineering	FFRDC	Aerospace Corporation : Falls Church, VA	1.000	0.595	Oct 2017	0.350	Oct 2018	-		-		-	0.000	1.945	-
Systems Engineering	FFRDC	Mitre : McLean, VA	0.950	0.460	Oct 2017	0.450	Oct 2018	-		-		-	0.000	1.860	-
Test and Evaluation	Various	605th : TES	0.540	-		-		-		-		-	0.000	0.540	-
Test and Evaluation	Various	Miscel : BBK	0.852	0.828	Dec 2017	-		-		-		-	0.000	1.680	-
		Subtotal	12.245	5.262		3.047		-		-		-	0.000	20.554	N/A

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 21

R-1 Line #211

Volume 5 - 94

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency														Date: March 2019		

Appropriation/Budget Activity 0400 I 7	R-1 Program Element (Number/Name) PE 0303126K I Long-Haul Communications - DCS	Project (Number/Name) PC01 I Presidential and National Voice Conferencing/

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Certifcation Testing	MIPR	Various : Various	3.025	-		-		-		-		-	0.000	3.025	-
		Subtotal	3.025	-		-		-		-		-	0.000	3.025	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	96.558	5.262	3.047	-	-	-	0.000	104.867	N/A

Remarks

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 21

R-1 Line #211

Volume 5 - 95

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PNVC System Testing																												
PNVC System																									▄	▄	▄	▄
N/A																												
PNVC System Engineering and Management Support																									▄	▄	▄	▄

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
PNVC System Testing																												
PNVC System	▄	▄	▄	▄	▄	▄	▄	▄																				
N/A																												
PNVC System Engineering and Management Support	▄	▄	▄	▄	▄	▄																						

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 21

R-1 Line #211

Volume 5 - 96

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** PC01 *I Presidential and National Voice Conferencing/*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PNVC System Testing				
PNVC System	1	2017	4	2019
N/A				
PNVC System Engineering and Management Support	1	2017	2	2019

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 21

R-1 Line #211

Volume 5 - 97

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0303126K / Long-Haul Communications - DCS				Project (Number/Name) T82 / DISN Systems Engineering Support			

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
T82: *DISN Systems Engineering Support*	173.939	17.828	11.306	11.166	-	11.166	11.891	11.681	11.923	12.144	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)	FY 2018	FY 2019	FY 2020
Title: Next Generation Networking Technologies (formally known as Internet Protocol (IP) and Optical Transport Technology Refresh)	5.203	5.080	5.061
Description: 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. *FY 2019 Plans:*			

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 10 of 21

R-1 Line #211

Volume 5 - 98

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	R-1 Program Element (Number/Name) PE 0303126K *I Long-Haul Communications - DCS*	Project (Number/Name) T82 *I DISN Systems Engineering Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
The DISN will continue to perform Research, Test and Evaluation activities in Software Environment, Next Generational Networking to include Gray networks and all associated encryption technologies. **FY 2020 Plans:** The DISN will continue to perform Research, Test and Evaluation activities in Software Environment, Next Generational Networking to include Gray networks and all associated encryption technologies. **FY 2019 to FY 2020 Increase/Decrease Statement:** The decrease of -$0.019 from FY 2019 to FY 2020 is due to a slightly reduced effort on networking technologies.			
Title: Peripheral and Component Design **Description:** 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. **FY 2019 Plans:** Support upgrades to switch software for Information Assurance (IA)/Cybersecurity improvements and continued integration of IP trunking and IP line-side and gateway functions in evolving system to meet Risk Management Framework (RMF) and Nuclear Command, Control, and Communications (NC3) requirements. **FY 2020 Plans:** 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. **FY 2019 to FY 2020 Increase/Decrease Statement:** The decrease of -$0.104 from FY 2019 to FY 2020 is attributed to fewer Defense Red Switch Network (DRSN) HW/SW component enhancements.	-	1.731	1.627
Title: Mobility **Description:** 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. **FY 2019 Plans:** Developmental and production testing of new-model commercial mobile devices per product baseline, carrier, and platform authenticated against the Mobile Device Manager. Security, interoperability, and functional evaluation of mobile applications. Production testing of the applications development framework and integration testing for infrastructure components, including	6.725	4.495	4.478

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency
UNCLASSIFIED
Page 11 of 21
R-1 Line #211
Volume 5 - 99

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
additional gateway instances supporting secret and top secret domains as well as any commercial off-the-shelf (COTS) component technology refresh requirements against the end-to-end architecture. *FY 2020 Plans:* Developmental and production testing of new-model commercial mobile devices per product baseline, carrier, and platform authenticated against the Mobile Device Manager. Security, interoperability, and functional evaluation of mobile applications. 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. *FY 2019 to FY 2020 Increase/Decrease Statement:* The decrease of -$0.017 from FY 2019 to FY 2020 is due to a reduction in the amount of engineering required as the unclassified capability transitions to sustainment.			
Title: Presidential and National Voice Conferencing (PNVC) *Description:* Presidential and National Voice Conferencing (PNVC) Systems Engineering conduct analyses for continuity of NEADN voice conferencing for national/military leaders through PNVC deployment. Program continues engineering, technical analysis, development, and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders.	5.900	-	-
Accomplishments/Planned Programs Subtotals	17.828	11.306	11.166

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M/PE0303126K: *Operation & Maintenance, Defense-Wide*	41.102	51.725	123.058	-	123.058	127.029	128.714	131.137	134.971	Continuing	Continuing
• Procurement/PE0303126K: *Procurement, Defense-Wide*	137.457	150.674	17.574	-	17.574	31.634	30.719	32.393	33.110	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 National Aeronautics and Space Administration (NASA) enterprise equipment contracting vehicle when necessary and applicable.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

The Internet Protocol (IP) enabling of the DRSN Digital Small Switch (DSS-2A) switch, Secure voice conference management improvements, High Altitude Electromagnetic Pulse (HEMP) Phone and related DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the Secure Voice Switch systems manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.

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

E. Performance Metrics

Funds support tech insertion and deployment of two DoD Mobility Classified Capability (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 Mobile Device Management (MDM) associated capabilities integration efforts. Will provide for T&E of DoD Mobility Non-classified Internet Protocol Router Network (NIPRNet) & Secret Internet Protocol Router Network (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 2018 (Actual): 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.

FY 2019 (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.

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 13 of 21

R-1 Line #211

Volume 5 - 101

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

FY 2020 (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.

Long Haul Communications
Percent of On Time Delivery
Project Support Deliverables received on time
FY 2018 (expected result): 100% / Actual: 100% Completed
FY 2019 (expected result): 100%
FY 2020 (expected result): 100%

Percent of Deliverable Milestones Completed On Time
Product Deliverable Milestones completed on time
FY 2018 (expected result): 100% / Actual: 100% Completed
FY 2019 (expected result): 100%
FY 2020 (expected result): 100%

Percent of Requirements Tested
Successfully Tested Requirements
FY 2018 (expected result): 100% / Actual: 100% Completed
FY 2019 (expected result): 100%
FY 2020 (expected result): 100%

Number of trouble reports less than 6 months
Critical Trouble Reports > 6 months old
FY 2018 (expected result): 100% / Actual: 100% Completed
FY 2019 (expected result): 100%
FY 2020 (expected result): 100%

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency														**Date:** March 2019	

Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon : Florida	13.794	-		1.731	Mar 2019	1.627	Mar 2020	-		1.627	Continuing	Continuing	Continuing
Systems Engineering for IP Enabling DSS-2A Secure Voice Switch	C/T&M	Raytheon : Florida	21.440	-		-		-		-		-	0.000	21.440	-
Engineering &Technical Services for Information Sharing Services for Voice	C/T&M	SAIC : VA	2.774	-		-		-		-		-	0.000	2.774	-
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	Various : VA	2.026	-		-		-		-		-	0.000	2.026	-
Single Sign On	C/T&M	SAIC : Various	1.397	-		-		-		-		-	0.000	1.397	-
System Engineering for VoSIP	C/T&M	Various : Various	1.218	-		-		-		-		-	0.000	1.218	-
Space Vehicle Upload	SS/CPFF	Iridium : McLean, VA	12.635	-		-		-		-		-	0.000	12.635	-
Gateway Improvement	SS/CPFF	Iridium : McLean, VA	13.565	-		-		-		-		-	0.000	13.565	-
Field Application Tool	MIPR	NSWC : Dahlgren	6.635	-		-		-		-		-	0.000	6.635	-
DTCS Handset	SS/CPFF	Iridium : McLean, VA	5.850	-		-		-		-		-	0.000	5.850	-
Command and Control Handset	SS/CPFF	Iridium : McLean, VA	7.275	-		-		-		-		-	0.000	7.275	-
Alt. Supplier Development	MIPR	NSWC : Dahlgren, VA	3.450	-		-		-		-		-	0.000	3.450	-
Radio Only Interface	MIPR	NSWC : Dahlgren, VA	2.525	-		-		-		-		-	0.000	2.525	-
Remote Control Unit	SS/CPFF	Iridium : McLean, VA	2.100	-		-		-		-		-	0.000	2.100	-
Type 1 Security	SS/CPFF	Iridium : McLean, VA	6.455	-		-		-		-		-	0.000	6.455	-
Vehicle Integration	MIPR	NSWC : Dahlgren, VA	3.185	-		-		-		-		-	0.000	3.185	-

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 15 of 21

R-1 Line #211

Volume 5 - 103

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency														Date: March 2019

Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 0303126K / Long-Haul Communications - DCS		Project (Number/Name) T82 / DISN Systems Engineering Support	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO : Various	8.717	-		-		-		-		-	0.000	8.717	-
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis : VA	1.168	-		-		-		-		-	0.000	1.168	-
System Engineering and Technical Services for ISOM	Various	DITCO : Various	2.915	-		-		-		-		-	0.000	2.915	-
Serialized Asset Management - OSS	C/T&M	SAIC : VA	0.822	-		-		-		-		-	0.000	0.822	-
Gateways - Mobility	C/FFP	Various : Various	7.107	-		-		-		-		-	0.000	7.107	-
Thin Client Solution - Mobility	C/Various	Various : Various (MDM)	2.154	-		-		-		-		-	0.000	2.154	-
New Field Communications	C/FFP	Various : Various	0.550	-		-		-		-		-	0.000	0.550	-
National Conference Management	MIPR	USAF : Raytheon	4.514	-		-		-		-		-	0.000	4.514	-
IP Enable DRSN	MIPR	USAF : Raytheon	1.562	-		-		-		-		-	0.000	1.562	-
HEMP Phone Development	MIPR	USAF : Raytheon	0.869	-		-		-		-		-	0.000	0.869	-
100G Optical	Various	Various : Various	0.337	-		-		-		-		-	0.000	0.337	-
Defense Production Act III Optical Networking	Various	Various : Various	2.666	-		-		-		-		-	0.000	2.666	-
DoD Mobility Capability Service Assurance	C/FFP	Various (JITC, HYPHONI) : Various	2.316	-		-		-		-		-	0.000	2.316	-
System Engineering & Future Technology Support	SS/CPFF	SPAWAR : Charleston	-	2.420	Feb 2018	-		-		-		-	0.000	2.420	-
System Engineering Support DMCC/DMUC	C/FFP	BAH : Annapolis Junction MD	-	2.000	Feb 2018	1.972	Feb 2019	1.339	Feb 2020	-		1.339	Continuing	Continuing	-

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 16 of 21

R-1 Line #211

Volume 5 - 104

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DIUx-Mobility APP Vetting and MSM tools (MTD)	MIPR	TBD : TBD	-	-		2.237	Feb 2019	-		-		-	0.000	2.237	-
MES-C-DMCC Buildout/ VDI	SS/CPFF	APRIVA/SPAWAR : APRIVA/SPAWAR	-	-		-		1.139	Oct 2019	-		1.139	Continuing	Continuing	-
		Subtotal	142.021	4.420		5.940		4.105		-		4.105	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IT Support - Mobility	C/FFP	Arieds, LLC : Ft. Meade	2.300	-		-		-		-		-	0.000	2.300	-
NS2 SE Support - Mobility	C/FFP	APPTIS : Ft. Meade	0.311	-		-		-		-		-	0.000	0.311	-
IT Support - Mobility	Various	Various : Various	3.000	-		-		1.050	Oct 2019	-		1.050	Continuing	Continuing	-
PNVC Software enhancements	C/CPFF	General Dynamics : NSA	-	5.900	Jun 2018	-		-		-		-	0.000	5.900	-
		Subtotal	5.611	5.900		-		1.050		-		1.050	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	Various	JITC : Various	8.242	-		-		-		-		-	0.000	8.242	-
Test & Evaluation Support - Mobility	Various	JITC : Ft. Meade	5.907	-		0.286	Feb 2019	0.950	Oct 2019	-		0.950	Continuing	Continuing	-
Integration, Test ann Modification - Mobility	Various	Various : Various	7.158	-		-		-		-		-	0.000	7.158	-
DISN Tech Refresh	Various	Various : Various	5.000	5.203	Jan 2018	5.080	Jan 2019	5.061	Dec 2019	-		5.061	Continuing	Continuing	-
Various	Various	Various : Various	-	2.305	Jan 2018	-		-		-		-	0.000	2.305	-
		Subtotal	26.307	7.508		5.366		6.011		-		6.011	Continuing	Continuing	N/A

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 17 of 21

R-1 Line #211

Volume 5 - 105

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency							**Date:** March 2019		
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*			**Project (Number/Name)** T82 *I DISN Systems Engineering Support*		

	Prior Years	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	173.939	17.828	11.306	11.166	-	11.166	Continuing	Continuing	N/A

Remarks

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 18 of 21

R-1 Line #211

Volume 5 - 106

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 I 7	R-1 Program Element (Number/Name) PE 0303126K I Long-Haul Communications - DCS	Project (Number/Name) T82 I DISN Systems Engineering Support

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DRSN																												
DRSN																									███			
OSS																												
OSS																									███			
Technology Refresh																												
Technology Refresh																█████████████												
DISN Tech Refresh																									███			
Mobility																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																									███			
DoD Mobility Gateways - Architecture Support																									███			
NIPR Enclave (MDM, MAS)																									███			
SIPR Enclave (MDM, MAS)																									███			
TS Enclave (MDM, MAS)																									███			
MDM & MAS Operational Testing																									███			
Virtual Desktop Infrastructure (VDI)																												
PNVC																												
DISN Tech Refresh																												

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
DRSN																												
DRSN	██																											
OSS																												

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303126K *I Long-Haul Communications - DCS*	**Project (Number/Name)** T82 *I DISN Systems Engineering Support*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
OSS																												
Technology Refresh																												
Technology Refresh																												
DISN Tech Refresh																												
Mobility																												
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)																												
DoD Mobility Gateways - Architecture Support																												
NIPR Enclave (MDM, MAS)																												
SIPR Enclave (MDM, MAS)																												
TS Enclave (MDM, MAS)																												
MDM & MAS Operational Testing																												
Virtual Desktop Infrastructure (VDI)																												
PNVC																												
DISN Tech Refresh																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303126K / *Long-Haul Communications - DCS*	**Project (Number/Name)** T82 / *DISN Systems Engineering Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DRSN				
DRSN	1	2017	4	2023
OSS				
OSS	1	2017	4	2017
Technology Refresh				
Technology Refresh	1	2015	4	2021
DISN Tech Refresh	1	2017	4	2024
Mobility				
Lab Purchase (Gateways, NIPR, SIPR, TS Enclave)	1	2017	4	2018
DoD Mobility Gateways - Architecture Support	1	2017	4	2024
NIPR Enclave (MDM, MAS)	1	2017	4	2017
SIPR Enclave (MDM, MAS)	1	2017	4	2017
TS Enclave (MDM, MAS)	1	2017	4	2020
MDM & MAS Operational Testing	1	2017	4	2024
Virtual Desktop Infrastructure (VDI)	4	2018	3	2020
PNVC	4	2018	4	2019
DISN Tech Refresh	1	2019	3	2024

PE 0303126K: *Long-Haul Communications - DCS*
Defense Information Systems Agency

UNCLASSIFIED
Page 21 of 21

R-1 Line #211

Volume 5 - 109

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency		Date: March 2019

Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	R-1 Program Element (Number/Name) PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	166.181	15.855	17.579	17.383	-	17.383	17.715	18.017	18.458	18.802	Continuing	Continuing
T64: *Special Projects*	70.985	0.000	5.481	5.558	-	5.558	5.564	5.562	5.673	5.778	Continuing	Continuing
T70: *Strategic C3 Support*	95.196	15.855	12.098	11.825	-	11.825	12.151	12.455	12.785	13.024	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	15.855	17.579	17.383	-	17.383
Current President's Budget	15.855	17.579	17.383	-	17.383
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 vertical change statement required.

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 11

R-1 Line #212

Volume 5 - 111

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7					**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*				**Project (Number/Name)** T64 *I Special Projects*		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
T64: *Special Projects*	70.985	0.000	5.481	5.558	-	5.558	5.564	5.562	5.673	5.778	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 2018	FY 2019	FY 2020
Title: Special Projects	0.000	5.481	5.558
Description: Program is classified and exhibit will be provided under a separate cover. *FY 2019 Plans:* Program is classified and exhibit will be provided under a separate cover. *FY 2020 Plans:* Program is classified and exhibit will be provided under a separate cover. *FY 2019 to FY 2020 Increase/Decrease Statement:* Program is classified and exhibit will be provided under a separate cover.			
Accomplishments/Planned Programs Subtotals	0.000	5.481	5.558

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.

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 11

R-1 Line #212

Volume 5 - 112

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency												**Date:** March 2019		
Appropriation/Budget Activity 0400 *I* 7						**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*						**Project (Number/Name)** T64 *I Special Projects*		

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Classified	Various	Classified : Classified	70.985	0.000		5.481	Oct 2018	5.558	Oct 2019	-		5.558	Continuing	Continuing	-
		Subtotal	70.985	0.000		5.481		5.558		-		5.558	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	70.985	0.000	5.481	5.558	-	5.558	Continuing	Continuing	N/A

Remarks

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency
UNCLASSIFIED
Page 3 of 11
R-1 Line #212
Volume 5 - 113

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 *I Special Projects*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Classified																												
Classified																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T64 *I Special Projects*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Classified				
Classified	1	2018	4	2024

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency
UNCLASSIFIED
Page 5 of 11
R-1 Line #212
Volume 5 - 115

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*						**Project (Number/Name)** T70 *I Strategic C3 Support*		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
T70: *Strategic C3 Support*	95.196	15.855	12.098	11.825	-	11.825	12.151	12.455	12.785	13.024	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Systems Engineering, Analysis and Architecture	15.855	12.098	11.825

FY 2019 Plans:
Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency. Will continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development.

FY 2020 Plans:
Will continue oversight and configuration control of the NLCC functional baseline. Will continue to identify NLCC capability gaps, and develop engineering courses of action to close those gaps. Will continue to shape plans for future NLCC capabilities, perform end-to-end testing of fielded capabilities, and perform operational assessments of current capabilities to provide quantitative

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 11

R-1 Line #212

| Volume 5 - 116 |

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 7	**R-1 Program Element (Number/Name)** PE 0303131K **/** *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 **/** *Strategic C3 Support*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
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. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The decrease of -$0.273 in FY 2019 to FY 2020 is attributed to changes to the Polo Hat theatre and Paul Revere operational assessments required. Additional information is classified and provided under separate cover.			
Accomplishments/Planned Programs Subtotals	15.855	12.098	11.825

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, PE 0303131K: *O&M*	23.494	19.027	19.331	-	19.331	19.989	20.246	20.942	22.947	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 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.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 *I Strategic C3 Support*

MEECN is on track to achieve the FY 2018, FY 2019, and FY 2020 targets of provisioning the Joint Staff requirements within the allocated resources 90% of the time.

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 11

R-1 Line #212

Volume 5 - 118

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency | | | | | | | | | | | | | **Date:** March 2019 | | |

| Appropriation/Budget Activity 0400 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131K / Minimum Essential Emergency Communications Network (MEECN) | | | | | | | Project (Number/Name) T70 / Strategic C3 Support | | | |

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering 1	C/CPAF	SAIC : McLean, VA	21.699	-		-		-		-		-	0.000	21.699	-
Systems Engineering 2	C/CPAF	Raytheon Company : Arlington, VA	35.600	-		-		-		-		-	0.000	35.600	-
Systems Engineering 3	C/CPFF	Pragmatics : McLean, VA	10.080	-		-		-		-		-	0.000	10.080	-
Systems Engineering 4	C/FP	Raytheon Company : Arlington, VA	19.047	5.200	Feb 2018	6.050	Feb 2019	6.050	Feb 2020	-		6.050	Continuing	Continuing	Continuing
Systems Engineering 5	C/CPFF	BAH : Falls Church, VA	4.273	-		-		-		-		-	0.000	4.273	-
Systems Engineering 6	C/CPFF	Harris Corporation : Melbourne, FL	2.500	-		-		-		-		-	0.000	2.500	-
Systems Engineering 7	C/CPAF	Carson Engineering : Bethesda, MD	1.056	-		-		-		-		-	0.000	1.056	-
System Engineering 8	C/FFP	MITRE Corp : McLean, VA	0.941	1.332	Oct 2017	1.000	Oct 2018	1.000	Oct 2019	-		1.000	Continuing	Continuing	Continuing
System Engineering 9	C/FFP	JHU APL : Laurel, MD	-	2.500	Apr 2018	1.000	Apr 2019	0.551	Apr 2020	-		0.551	Continuing	Continuing	Continuing
System Engineering 10	C/FFP	Various : Various	-	1.342	Aug 2018	-		-		-		-	0.000	1.342	-
System Engineering	C/CPFF	Jacob FNS : Arlington, Va	-	-		4.048	Oct 2018	4.224	Dec 2019	-		4.224	Continuing	Continuing	Continuing
Systems Engineering & Integration	C/CPFF	Verizon : Arlington, VA	-	5.481	Oct 2017	-		-		-		-	0.000	5.481	-
Subtotal			95.196	15.855		12.098		11.825		-		11.825	Continuing	Continuing	N/A

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			95.196	15.855		12.098		11.825		-		11.825	Continuing	Continuing	N/A

Remarks

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 11

R-1 Line #212

Volume 5 - 119

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303131K / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 / *Strategic C3 Support*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)																												
NLCC Program Tracking Report																												
Systems Analysis Documents																												
Systems Analysis Documents																												
NLCC Reference Architecture (formally known as NC3 Reference Architecture																												
NLCC Reference Architecture																												
Operational Assessments																												
Operational Assessments																												
NLCC Portfolio Roadmap																												
NLCC Portfolio Roadmap																												
NLCC System Engineering and Integration																												
NLCC System Engineering and Integration																												
NLCC Target Architecture																												
NLCC Target Architecture																												

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 10 of 11

R-1 Line #212

Volume 5 - 120

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131K *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** T70 *I Strategic C3 Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NLCC Program Tracking Report (formally known as NC3 Program Tracking Report)				
NLCC Program Tracking Report	1	2018	3	2024
Systems Analysis Documents				
Systems Analysis Documents	1	2018	4	2024
NLCC Reference Architecture (formally known as NC3 Reference Architecture				
NLCC Reference Architecture	1	2018	4	2024
Operational Assessments				
Operational Assessments	1	2018	4	2024
NLCC Portfolio Roadmap				
NLCC Portfolio Roadmap	1	2018	1	2024
NLCC System Engineering and Integration				
NLCC System Engineering and Integration	1	2018	1	2024
NLCC Target Architecture				
NLCC Target Architecture	4	2018	3	2024

PE 0303131K: *Minimum Essential Emergency Communicatio...*
Defense Information Systems Agency

UNCLASSIFIED
Page 11 of 11

R-1 Line #212

Volume 5 - 121

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

| Appropriation/Budget Activity
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7:
Operational Systems Development | | | | | R-1 Program Element (Number/Name)
PE 0303140K *I Information Systems Security Program* | | | | | | |

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	19.611	42.796	-	42.796	12.904	8.422	8.470	8.601	Continuing	Continuing
IA3: *Information Systems Security Program*	0.000	0.000	19.611	42.796	-	42.796	12.904	8.422	8.470	8.601	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Information Systems Security Program (ISSP) mission focuses on developing Department of Defense (DoD) enterprise solutions to Combatant Commands, Services, and Defense-wide agencies to ensure critical mission execution in the face of cyber attacks. The ISSP ensures that, the network, the computing centers, and core enterprise services will evolve to better support a joint cybersecurity/information assurance model that has common enterprise-scale perimeter defenses and will support a broad range of sharing policies from completely unclassified to tightly-held within a classified community. The ISSP will test and develop active-active defensive capabilities; test and integrate software defined networking and orchestration closed-loop security; perform research, development and engineering of emerging cyber situational awareness technologies; harden the network by providing architecture support, systems engineering and analytical functions for Endpoint and Perimeter defense capabilities; cyber IT infrastructure and automation support to deploy enterprise-wide next generation identity technologies; and develop and evolve an integrated cyber domain security workforce to be on the leading edge of defensive capabilities.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	19.611	12.596	-	12.596
Current President's Budget	0.000	19.611	42.796	-	42.796
Total Adjustments	0.000	0.000	30.200	-	30.200
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment	-	-	30.200	-	30.200

Change Summary Explanation

The increase of +$30.200 in FY 2020 is due to +$36.000 of additional funding for Identity, Credential, and Access Management (ICAM) and the Secure Application Development Program. The funding will be used to develop and implement the Automated Account Management data sharing and automation and Master User Record (MUR) for the automated account provisioning effort within ICAM (+$28.000); resource R&D innovation efforts to evaluate commercial meta/virtual directory data synchronization services in alignment with identity management, credentialing, active authentication, federation, and automated authorization for the federalized authentication services within ICAM (+$2.000); and support innovation activities and mission priorities for secure application

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency	**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*

development and quantitative analysis tools within the Secure Application Development program (+$6.000). This is offset by a decrease of -$5.800 in FY 2020 is due to the implementation of a standard information technology (IT) enterprise patch management capability.

PE 0303140K: *Information Systems Security Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 11

R-1 Line #217

Volume 5 - 124

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	
Appropriation/Budget Activity 0400 / 7				**R-1 Program Element (Number/Name)** PE 0303140K / Information Systems Security Program					**Project (Number/Name)** IA3 / Information Systems Security Program		
COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
IA3: *Information Systems Security Program*	0.000	0.000	19.611	42.796	-	42.796	12.904	8.422	8.470	8.601	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Information Systems Security Program (ISSP) mission focuses on developing Department of Defense (DoD) enterprise solutions to Combatant Commands, Services, and Defense-wide agencies to ensure critical mission execution in the face of cyber attacks. The ISSP ensures that, the network, the computing centers, and core enterprise services will evolve to better support a joint cybersecurity/information assurance model that has common enterprise-scale perimeter defenses and will support a broad range of sharing policies from completely unclassified to tightly-held within a classified community. The ISSP will test and develop active-active defensive capabilities; test and integrate software defined networking and orchestration closed-loop security; perform research, development and engineering of emerging cyber situational awareness technologies; harden the network by providing architecture support, systems engineering and analytical functions for Endpoint and Perimeter defense capabilities; cyber IT infrastructure and automation support to deploy enterprise-wide next generation identity technologies; and develop and evolve an integrated cyber domain security workforce to be on the leading edge of defensive capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Zero-Day Network Defense Email Capability **Description:** Zero-Day Network Defense (ZND) Email Capability Technology Assessment/Evaluation for Tech Refresh. **FY 2019 Plans:** Conduct Technology Assessment/Evaluation in support of Zero-Day Network Defense (ZND) Email Tech Refresh. **FY 2019 to FY 2020 Increase/Decrease Statement:** The decrease of -$4.500 from FY 2019 to FY 2020 represents one-time funding in FY 2019 for technology evaluation in support of the Zero Day Net Defense (ZND) email capability on the Non-Classified Internet Protocol Router Network (NIPRNet). The evaluation supports research and engineering solutions for enhanced malware analysis, preventative spear-phishing and perimeter attacks within the Department of Defense Information Network (DODIN), design of layered defenses against adversary Tactics, Techniques, and Procedures (TTPs) and testing of automated machine to machine processes of cyber situational awareness at the five email gateways.	-	4.500	-
Title: DoD Cyber Security Range (CSR) **Description:** The DoD Cyber Security Range (CSR) provides a multi-classification level, operationally realistic, DODIN representative, cyber security environment to sustain and enhance the professional development of the DoD cyber security workforce.	-	1.811	1.337

PE 0303140K: *Information Systems Security Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 11

R-1 Line #217

| Volume 5 - 125 |

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency			Date: March 2019		
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*		**Project (Number/Name)** IA3 *I Information Systems Security Program*		

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
FY 2019 Plans: Continue providing the IA Range platform to test new Cybersecurity efforts using the CS Range; Increase capability to leverage CS Range for training and capstone events; Increase capability for remote access to CS Range for testing, training and exercises. Implement Joint Regional Security Stacks (JRSS) Cloud Learning Environment improvements, JRSS Management System (JMS) Enhancements, and replicate the tactical network boundaries of the four services.			
FY 2020 Plans: Continue providing the Cybersecurity (CS) / Information Assurance (IA) Range platform to test new Cybersecurity efforts using the CS Range; Continue to support capability to leverage CS Range for training and capstone events; Support capability for remote access to CS Range for testing, training and exercises. Implement Joint Regional Security Stacks (JRSS) Cloud Learning Environment improvements, JRSS Management System (JMS) Enhancements, and replicate the tactical network boundaries of the four services.			
FY 2019 to FY 2020 Increase/Decrease Statement: The decrease of -$0.474 from FY 2019 to FY 2020 is attributable to reduced testing and simulation requirements for the operational networks within the Cybersecurity Range.			
Title: Endpoint Security Solutions (ESS)	-	3.000	-
Description: Endpoint Security Solutions (ESS) provides counters exploitation and destructive malware, contain exploited threats, and make indicators of attack/compromise visible to the operator; fully supports friendly forces operating in contested cyber environments. Provides Asset Inventory Management Modules (AIMM) to provide near-real time situational awareness of devices. Provides Digital Policy Management System (DPMS) to facilitate development and maintenance of Cybersecurity/Information Assurance Standards. Provides Assured Compliance Assessment Solution (ACAS) to assess the configuration compliance of networks and systems against DoD and all known vulnerabilities. *FY 2019 Plans:* Provide software licensing necessary to perform the Automated Patch Management (APM) Proof of Concept, technical expertise necessary to deploy this APM solution, and additional infrastructure investment to provide an updated platform for the APM effort to be successful.			
FY 2019 to FY 2020 Increase/Decrease Statement: The decrease of -$3.000 from FY 2019 to FY 2020 represents one-time funding in FY 2019 for a standard information technology (IT) enterprise patch management capability proof of concept.			
Title: Cyber HQs Support	-	10.300	-

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019	
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303140K / *Information Systems Security Program*	**Project (Number/Name)** IA3 / *Information Systems Security Program*	

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Description: Preserves User Activity Monitoring (UAM) capability in countering insider threats at nine Combatant Commands. *FY 2019 Plans:* Perform engineering and provide software licensing/maintenance in support of the User Activity Monitoring (UAM) capability in countering insider threats at nine Combatant Commands. *FY 2019 to FY 2020 Increase/Decrease Statement:* The decrease -$10.300 from FY 2019 to FY 2020 is attributed to the transition of engineering and software licensing/maintenance of DoD User Activity Monitoring (UAM) capability into Operations and Sustainment in countering insider threats for the nine Combatant Commands.			
Title: Cyber Innovation and Technology *Description:* Provide research and development, conduct technology assessments, rapidly produce prototypes using commercial solutions, validate assumptions, and provide empirical data to drive real time enterprise solutions and decisions in assisting DoD requirement owners for enterprise fielding of innovative gap fillers to address cyber capabilities and militarization of commercial information assurance capabilities tactical edge. All project undertaken directly increase information sharing capabilities and assure C2 functionality against a common operating picture. The program will leverage its robust IT infrastructure to develop small prototypes to find cost saving initiatives across the DODIN in an effort to provide the DoD with faster more reliable communications capabilities. These solutions will look to provide enhanced warfighting technology and research development programs improving the protection, survivability, mobility and combat effectiveness of the DoD. *FY 2020 Plans:* Assess at least two capabilities as directed by senior leadership, with focus on Blockchain and Next Generation Identify and Authentication commercial capabilities emphasizing enhancements and integrations of innovative technologies, to enhance enterprise level services for all DoD entities keeping the agency and DoD at the forefront of IT capabilities. DISA capabilities to be leveraged include DoD Mobility Classified Capability/Unclassified Capability (DMCC/UC), DoD Public Key Infrastructure (PKI), JRSS, NETOPS, Perimeter and Endpoint programs and transport to include terrestrial. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$11.459 from FY 2019 to FY 2020 is due to the establishment of Cyber Innovation Funds supporting cyber innovation and technology assessment of 2 cyber capabilities. Increase will also be used to improve the security of application development by deploying DevSecOps software/model/platforms on NIPRNet and SIPRNet.	-	-	11.459
Title: Identity, Credential, and Access Management (ICAM)	0.000	-	30.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*	**Project (Number/Name)** IA3 *I Information Systems Security Program*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Description: Develop and deploy Identity, Credential, and Access Management (ICAM) efforts associated with automated account provisioning and auditability and federalized authentication services that support credentials for DoD and non-DoD personnel. *FY 2020 Plans:* Conduct the Master User Record (MUR) pathfinder effort and several Automated Account Provisioning (AAP) use-case Pilots. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$30.000 in is due to a +$28,000 increase to develop and implement the Automated Account Management data sharing and automation and Master User Record (MUR) for the automated account provisioning effort within ICAM and a +$2,000 increase to resource R&D innovation efforts to evaluate commercial meta/virtual directory data sycronization services in alignment with identity management, credentialing, active authentication, federation, and automated authorization for the federalized authentication services within ICAM.			
Accomplishments/Planned Programs Subtotals	0.000	19.611	42.796

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

D. Acquisition Strategy
 N/A

E. Performance Metrics

 Conduct Technology Assessment/Evaluation in support of Zero-Day Network Defense (ZND) Email Tech Refresh. Performance objectives include 60% of Defense Enterprise Email (DEE) Mailboxes protected, 0% bypassed emails, and capability to handle up to 43% unique attachments to total threats detected.

 Continue providing the IA Range platform to test new Cybersecurity efforts using the CS Range; Increase capability to leverage CS Range for training and capstone events; Increase capability for remote access to CS Range for testing, training and exercises. Implement Joint Regional Security Stacks (JRSS) Cloud Learning Environment improvements, JRSS Management System (JMS) Enhancements, and replicate the tactical network boundaries of the four services. Annual objectives include 15 test and evaluation events, 9 training events, and support of 5 exercise events.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*	**Project (Number/Name)** IA3 *I Information Systems Security Program*

Provide engineering expertise and software licensing/maintenance in support of the User Activity Monitoring (UAM) capability in countering insider threats at Ten CCMDs (USSOCOM, USAFRICOM, USCENTCOM, USEUCOM, USCYBERCOM, USNORTHCOM, USPACOM, USSOUTHCOM, USSTRATCOM, and USTRANSCOM).

Acquire software licensing necessary to perform the Automated Patch Management (APM) Proof of Concept, technical expertise necessary to deploy this APM solution, and infrastructure investment to provide an updated platform for the APM effort to be successful.

Two cyber architecture model and DODIN assessments to programs per fiscal Year

PE 0303140K: *Information Systems Security Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 11

R-1 Line #217

Volume 5 - 129

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency													Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7						**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*					**Project (Number/Name)** IA3 *I Information Systems Security Program*			

Support ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ZND Technology Assessment/Evaluation for email capability Tech Refresh	C/FFP	TBD : TBD	-	-	-	4.500	Feb 2019	-		-		-	0.000	4.500	-
DoD Cyber Security Range (CSR) Virtual Training Environment	C/FFP	ManTech : Fairfax, VA	-	-	-	1.198	Feb 2019	-		-		-	0.000	1.198	-
DoD Cyber Security Range (CSR) Virtual Training Environment - Re-compete	C/FFP	TBD : TBD	-	-	-	0.483	Jun 2019	1.207	Sep 2020	-		1.207	Continuing	Continuing	-
DoD Endpoint Security Solutions (ESS)	C/FFP	TBD : TBD	-	-	-	3.000	Jan 2019	-		-		-	0.000	3.000	-
Cyber HQs Support	C/FFP	TBD : TBD	-	-	-	10.300	Jan 2019	-		-		-	0.000	10.300	-
Joint Information Operations Range (JIOR) Connection	C/FFP	TBD : TBD	-	-	-	0.130	Jan 2019	0.130	Sep 2020	-		0.130	Continuing	Continuing	-
DISA EA Model Development for Cyber Security and Network Technical Domains, DODCAR Cyber Analysis Tool Development	C/FFP	TBD : TBD	-	-	-	-		0.459	Jan 2020	-		0.459	Continuing	Continuing	-
Deployment of Blockchain and Next Generation Identity	C/FFP	TBD : TBD	-	-	-	-		6.000	Jan 2020	-		6.000	Continuing	Continuing	-
Cyber Innovation and Technology	C/FFP	TBD : TBD	-	-	-	-		5.000	Mar 2020	-		5.000	Continuing	Continuing	-
Identity, Credential, and Access Management (ICAM)	C/FFP	TBD : TBD	-	-	-	-		30.000	Mar 2020	-		30.000	Continuing	Continuing	-
Subtotal			-	-		19.611		42.796		-		42.796	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency										Date: March 2019
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 0303140K *I Information Systems Security Program*				**Project (Number/Name)** IA3 *I Information Systems Security Program*		

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	19.611	42.796	-	42.796	Continuing	Continuing	N/A

Remarks

PE 0303140K: *Information Systems Security Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 11

R-1 Line #217

Volume 5 - 131

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303140K / *Information Systems Security Program*	**Project (Number/Name)** IA3 / *Information Systems Security Program*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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

Zero-Day Network Defense Email Capability

Zero-Day Network Defence (ZND) Email Capability Technology Assessment/ Evaluation for Tech Refresh

Cyber HQs Support

Test new Cybersecurity efforts using the CS Range

Increase capability to leverage CS Range for training and capstone events;

Increase capability for remote access to CS Range for testing, training and exercises.

Implement Joint Regional Security Stacks (JRSS) Cloud Learning Environment improvements

JRSS Management System (JMS) Enhancements

Replicate the tactical network boundaries of the four services.

Architecture and Model development

DODCAR WG Support

Innovation and Technology

Block Chain Cyber Innovation Technology Assessment

Next Gen Identity Tool Suite Cyber Innovation Technology Assessment

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Defense Information Systems Agency				**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303140K / *Information Systems Security Program*			**Project (Number/Name)** IA3 / *Information Systems Security Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Zero-Day Network Defense Email Capability				
Zero-Day Network Defence (ZND) Email Capability Technology Assessment/ Evaluation for Tech Refresh	4	2018	4	2019
Cyber HQs Support				
Test new Cybersecurity efforts using the CS Range	4	2018	4	2024
Increase capability to leverage CS Range for training and capstone events;	4	2018	4	2024
Increase capability for remote access to CS Range for testing, training and exercises.	4	2018	4	2024
Implement Joint Regional Security Stacks (JRSS) Cloud Learning Environment improvements	4	2018	4	2024
JRSS Management System (JMS) Enhancements	4	2018	4	2024
Replicate the tactical network boundaries of the four services.	4	2018	4	2024
Architecture and Model development				
DODCAR WG Support	2	2020	3	2024
Innovation and Technology				
Block Chain Cyber Innovation Technology Assessment	3	2020	3	2024
Next Gen Identity Tool Suite Cyber Innovation Technology Assessment	3	2020	3	2024

PE 0303140K: *Information Systems Security Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 11 of 11

R-1 Line #217

Volume 5 - 133

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

| Appropriation/Budget Activity
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7:
Operational Systems Development | | | | | R-1 Program Element (Number/Name)
PE 0303150K *I Global Command and Control System* | | | | | | | |

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	531.529	41.126	46.900	25.218	-	25.218	33.075	17.990	18.408	18.601	Continuing	Continuing
CC01: *Global Command and Control System-Joint (GCCS-J)*	531.529	41.126	46.900	25.218	-	25.218	33.075	17.990	18.408	18.601	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

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

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency					Date: March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*		

B. Program Change Summary ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	42.687	46.900	40.218	-	40.218
Current President's Budget	41.126	46.900	25.218	-	25.218
Total Adjustments	-1.561	0.000	-15.000	-	-15.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.262	-			
• Adjustment	-0.299	-	-15.000	-	-15.000

Change Summary Explanation

The decrease of -$1.561 in FY 2018 is due to SBIR/STTR transfer (-$1.262) and a 25-28% reduction of the operational capabilities requested by the user community (-$0.299) . 6.0.1.0 reached FOC in 1st quarter FY19, with capabilities that are equal or slightly better than the previous version 4.3 (to be sunset FY 19/20); there was/is additional operational capabilities identified by the user community (COCOMS and Services) to be built based on changing/emerging threats. The decrease of -$15.000 in FY 2020 is attributed to a program re-baseline due to contract delays for baseline infrastructure.

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 14

R-1 Line #218

Volume 5 - 136

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0303150K / Global Command and Control System					Project (Number/Name) CC01 / Global Command and Control System-Joint (GCCS-J)			
COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
CC01: Global Command and Control System-Joint (GCCS-J)	531.529	41.126	46.900	25.218	-	25.218	33.075	17.990	18.408	18.601	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 produces a transitional architecture that documents the current state of C2 capabilities, anticipated changes/enhancements either in progress or planned by the JC2 community.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Development and Strategic Planning	25.860	41.622	20.286
Description: Develop, publish, and execute a GCCS-J migration and modernization strategy that achieves the following GCCS-J Modernization objectives in accordance with Joint C2 Mission operational priorities and the DoD's JC2 Reference Architecture: • Continue to decompose applicable existing applications into services • Limit local deployment and move as much to the enterprise as possible • Continue to expose data and scale services to support an enterprise implementation			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
• Continue to evolve more economical hardware and software architecture without impact to the operational user or Family of Systems (FoS)/interface partners • Reduce overall sustainment cost through use of more cost effective and appropriate Commercial-off-the-Shelf (COTS) and Hardware (HW) products • Evolve to use of agile development practices • Consolidation of clients and tools *FY 2019 Plans:* Will modernize the current GCCS-J operational systems while maintaining synchronization across DoD of GCCS-J, joint interfaces and the GCCS Family of Systems, enhance the security posture of GCCS-J applications; and deliver and sustain the final installment of the GCCS-J "must-haves" capabilities. The GCCS-J "must haves" is the set of capabilities identified by the Joint Staff and C2 community as absolutely critical to allow GCCS-J sites to migrate away from the current costly legacy hardware and COTS platform to more cost effective solutions. The modernization effort will improve the current GCCS-J system's limitations and its ability to address current and projected cybersecurity and the increasing fragility of old code that puts the joint warfighter (front line to President) at risk jeopardizing operations and increasing fratricide risk. *FY 2020 Plans:* Cyber security analysis, research and development is an ongoing aspect of the software lifecycle required to keep the system securely deployed. Continue to maintain the synchronization across DoD of GCCS-J, joint interfaces and the GCCS Family of Systems; continue to deliver capabilities as prioritized by the warfighter; and meet emerging operational priorities. Will continue the development work towards IOC and full operational capability (FOC) with the infrastructure framework, the software development kit (SDK) and system visualization. This will allow the FOC capabilities to build upon and interface with the framework. Additionally, start the FOC development with the following capabilities for the GCCS-JE System: - Data Management, Admin & Support, Situational Awareness, Mission Support, and Force Protection. *FY 2019 to FY 2020 Increase/Decrease Statement:* The decrease of -$21.336 from FY 2019 to FY 2020 is due to deferred capability development of GCCS-JE requirements, to include Force Protection, Mission Preparation and Post Mission Support, delayed schedule for interface evolution and delivery of a critical enterprise cloud-based solution to the warfighter.			
Title: Joint Planning and Execution Services (JPES) *Description:* JPES is a collection of capabilities supporting joint policies, processes, procedures, and reporting structures, that are supported by communications and information technology used by the JPEC. JPEC uses these capabilities to monitor, plan, and	15.266	5.278	4.932

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency
UNCLASSIFIED
Page 4 of 14
R-1 Line #218
Volume 5 - 138

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
execute: mobilization, deployment, employment, sustainment, redeployment, and demobilization activities associated with joint operations. ***FY 2019 Plans:*** Continue to modernize JPES improving performance on the Framework, develop additional data services, develop additional enhancements to the user interface to support new user requirements. ***FY 2020 Plans:*** Continue to maintain, fix and enhance performance on JPES, Newsgroups, JCRM and Preferred Forces Generation (PFG). and develop any additional data services. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The decrease of -$0.346 from FY 2019 to FY 2020 is due to completing the major workload to JOPES Modernization projects.			
Accomplishments/Planned Programs Subtotals	41.126	46.900	25.218

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• PE 0303150K: *Operation & Maintenance, Defense-Wide*	82.207	92.415	93.315	-	93.315	90.559	-	-	-	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

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

FY 2018 (Actual): 100% successful test of new critical system interfaces, as well as continued 100% successful test of critical current system interfaces. MET: Successfully conducted critical interface testing during the GCCS-J 6.0.1.0 Operational Test and USINDOPACOM and USCENTCOM. Successfully tested and demonstrated the new Situational Awareness Services - Enhanced (SAS-E) capability and interface at USCENTCOM in 4Qtr FY18.
FY 2019 (Estimated): Expected to Meet
FY 2020 (Target): Expected to Meet

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

FY 2018 (Actual): Successful fielding of GCCS-J Global Release 6.X. MET: Successfully tested and released four GCCS-J 6.0.x.x releases in FY18 (6.0.0.6, 6.0.0.7, 6.0.0.8, and 6.0.0.9) -- each provided additional C2 capabilities to the warfighter.
FY 2019 (Estimated): Expected to Meet
FY 2020 (Target): Expected to Meet

Activity: Development of JOPES Framework (JFW) Release 5

FY 2018 (Actual): Sucessfully completed improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services. Estimated: 95%
FY 2019 (Estimated): Sucessfully complete improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services. Estimated: 50%
FY 2020 Target: Sucessfully complete improvements/expansion of JPES Framework (JFW) services providing enhanced system administration tools for monitoring and managing the JFW infrastructure and new data services. Estimated: 50%

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

FY 2018 (Actual): Achieve Fielding Decision Review (FDR) for Agile Client Release 8 (R8). Estimated: 100%. MET: Agile Client Release 8 successful released.
FY 2019 (Estimated): Achieve Fielding Decision Review (FDR) for Data Virtualization Layer Phase II. FY19 Estimated: 100%
FY 2020 Target: N/A; Not completed change of development strategy

Activity: Incrementally Develop, Test, and Field GCCS-J 6.0.x "Critical Must Have" Capabilities to the 53 Critical Sites designated by the Joint Staff J3. FY19 - Release and deploy GCCS-J 6.0.1.0 to the operational community, satisfying 100% of the "Critical Must Have" capabilities.

FY 2018 Target: N/A
FY 2019 (Estimated): Expected to Meet
FY 2020 (Estimated): Expected to Meet

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency
UNCLASSIFIED
Page 6 of 14
R-1 Line #218
Volume 5 - 140

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

Activity: Complete development and deployment of JOPES Modernization - JPES (Joint Planning & Execution System) Phase 1

FY 2018 Target: Successful development of JPES and deployment to the milCloud 1.0 environment. Estimated: 86% / Actual 93.5%
FY 2019 (Estimated): Successfully complete the development and deployment of JPES Phase 1; Achieve Fielding Decision Review (FDR) for JPES. Estimated: 100%
FY 2020 (Estimated): Successfully deploy JPES to the milCloud 2.0 environment; Expected to meet

Activity: Modernize GCCS-J To Provide a Cloud Based, Mobile, Enterprise Delivery of Legacy GCCS-J Capabilities (GCCS-J Enterprise). FY 19 - Field the GCCS-J Enterprise Initial Operating Capability.

FY 2018 Target: N/A
FY 2019 (Estimated): Expected to Meet
FY 2020 (Estimated): Expected to Meet

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 14

R-1 Line #218

Volume 5 - 141

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency | | | | | | | | | | | | | | Date: March 2019 |

| Appropriation/Budget Activity
0400 I 7 | R-1 Program Element (Number/Name)
PE 0303150K I Global Command and Control System | Project (Number/Name)
CC01 I Global Command and Control System-Joint (GCCS-J) |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 1	C/CPFF	NGMS : Reston, VA	20.289	-		-		-		-		-	0.000	20.289	-
Product Development 2	FFRDC	MITRE : McLean, VA	7.077	-		-		-		-		-	0.000	7.077	-
Product Development 3	SS/FFP	Dynamic Systems : Los Angeles, CA	3.189	-		-		-		-		-	0.000	3.189	-
Product Development 4	C/CPFF	Pragmatics : McLean, VA	31.239	-		-		-		-		-	0.000	31.239	-
Product Development 6	C/CPIF	BAH : McLean, VA	3.369	-		-		-		-		-	0.000	3.369	-
Product Development 7	C/CPIF	JPES Framework : Various	19.554	-		-		-		-		-	0.000	19.554	-
Product Development 8	C/CPFF	RTB Development : Various	13.116	-		-		-		-		-	0.000	13.116	-
Product Development 9	C/CPFF	IGS Development : Various	12.398	-		-		-		-		-	0.000	12.398	-
Product Development 10	C/CPFF	SAIC : Falls Church, VA	4.826	-		-		-		-		-	0.000	4.826	-
Product Development 11	MIPR	SSC : San Diego, CA	13.317	-		-		-		-		-	0.000	13.317	-
Product Development 12	C/CPFF	NGMS : Reston, VA	67.014	-		-		-		-		-	0.000	67.014	-
Product Development 13	MIPR	NGIT : Various	1.772	-		-		-		-		-	0.000	1.772	-
Product Development 14	C/CPFF	NGMS : Reston, VA	86.191	-		0.700	Oct 2018	0.700	Oct 2019	-		0.700	Continuing	Continuing	Continuing
Product Development 15	C/CPIF	Booz Allen Hamilton : McLean, VA	3.283	-		-		-		-		-	0.000	3.283	-
Product Development 16	C/CPFF	Booz Allen Hamilton : Various	3.685	-		-		-		-		-	0.000	3.685	-
Product Development 17	C/CPAF	Booz Allen Hamilton : Falls Church, VA	1.229	-		-		-		-		-	0.000	1.229	-
Product Development 18	C/CPAF	AB Floyd : Alexandria, VA	12.477	-		-		-		-		-	0.000	12.477	-
Product Development 19	C/CPAF	Femme Comp Inc : Chantilly, VA	7.249	-		-		-		-		-	0.000	7.249	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency												Date: March 2019	
Appropriation/Budget Activity 0400 *I* 7						**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*						**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*	

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Product Development 20	C/CPFF	SAIC : Falls Church, VA	5.876	-		-		-		-		-	0.000	5.876	-
Product Development 21	C/CPIF	Booz Allen Hamilton : McLean, VA	5.865	-		-		-		-		-	0.000	5.865	-
Product Development 22	MIPR	JDISS : Various	6.039	-		-		-		-		-	0.000	6.039	-
Product Development 23	C/FFP	NGMS : Reston, VA	4.790	-		-		-		-		-	0.000	4.790	-
Product Development 24	MIPR	SPAWAR : Charleston, SC	10.034	0.721	Sep 2018	-		1.681	Sep 2020	-		1.681	Continuing	Continuing	Continuing
Product Development 25	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS : Various	5.710	-		-		-		-		-	0.000	5.710	-
Product Development 26	C/CPAF	Tactical 3-D COP : Various	3.200	-		-		-		-		-	0.000	3.200	-
Product Development 27	SS/FFP	JITC : Various	20.400	-		-		-		-		-	0.000	20.400	-
Product Development 28	C/CPFF	JCRM : McLean, VA	8.600	-		-		-		-		-	0.000	8.600	-
Product Development 30	C/CPFF	Systems Engineering and Integration : Various	9.630	4.400	Sep 2018	4.200	Sep 2019	4.200	Sep 2020	-		4.200	Continuing	Continuing	Continuing
Product Development 31	C/Various	GCCS-J : Various	5.367	-		-		-		-		-	0.000	5.367	-
Product Development 32	C/CPFF	GCCS-JE Capabilities Development : Various	-	10.500	Feb 2018	11.500	Sep 2019	-		-		-	0.000	22.000	-
Product Development 33	C/Various	JPES : Various	4.673	-		-		-		-		-	0.000	4.673	-
Engineering Services and Integration 29	SS/FFP	GCCS-J : Various	6.782	-		-		-		-		-	0.000	6.782	-
I3 Engineering Services & SW Development	C/Various	NGIT : Various	1.811	-		-		-		-		-	0.000	1.811	-

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 9 of 14

R-1 Line #218

Volume 5 - 143

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency		Date: March 2019	

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303150K / Global Command and Control System	Project (Number/Name) CC01 / Global Command and Control System-Joint (GCCS-J)

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development 29	C/FFP	JOPES modernization : Washington, DC	10.248	-		-		-		-		-	0.000	10.248	-
Product Development 34	C/CPFF	JPES Solution : Falls Church, VA	0.000	7.400	Jan 2018	4.524	Jan 2019	6.374	Jan 2020	-		6.374	Continuing	Continuing	Continuing
Product Development	C/CPFF	GCCS-JE OTA : McLean, VA	0.000	16.005	Feb 2018	23.947	Feb 2019	8.579	Feb 2020	-		8.579	Continuing	Continuing	Continuing
Subtotal			420.299	39.026		44.871		21.534		-		21.534	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support 1	C/T&M	Oracle : Various	1.003	-		-		-		-		-	0.000	1.003	-
Support 2	C/CPFF	JC2 Common Interface : Various	4.808	-		-		-		-		-	0.000	4.808	-
Support Costs - Engineering Support 3	FFRDC	MITRE : Various	0.754	-		-		1.382	Nov 2019	-		1.382	Continuing	Continuing	Continuing
Support Costs - Engineering Support 4	C/CPFF	Pragmatics : McLean, VA	3.799	-		-		-		-		-	0.000	3.799	-
Support Costs - Engineering Support 5	C/CPFF	IPA : College Park, MD	0.283	-		-		-		-		-	0.000	0.283	-
Support Cost 6	C/FFP	STA : Falls Church, VA	2.772	-		-		-		-		-	0.000	2.772	-
Support Costs	C/CPFF	GCCS-J : Various	4.557	-		-		-		-		-	0.000	4.557	-
Support Cost 7	C/FFP	Pragmatics : McLean, VA	3.564	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			21.540	-		-		1.382		-		1.382	Continuing	Continuing	N/A

PE 0303150K: Global Command and Control System
Defense Information Systems Agency

UNCLASSIFIED
Page 10 of 14

R-1 Line #218

Volume 5 - 144

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency | | **Date:** March 2019

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303150K / Global Command and Control System	Project (Number/Name) CC01 / Global Command and Control System-Joint (GCCS-J)

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation 1	C/CPFF	SAIC : Falls Church, VA	0.744	-		-		-		-		-	0.000	0.744	-
Test & Evaluation 2	MIPR	JITC : Ft. Huachuca, AZ	31.065	1.500	Sep 2018	0.800	Oct 2018	1.700	Oct 2019	-		1.700	Continuing	Continuing	Continuing
Test & Evaluation 3	MIPR	DIA : Various	9.104	-		0.629	Jan 2019	-		-		-	Continuing	Continuing	Continuing
Test & Evaluation 4	MIPR	DAA : Various	3.752	0.600	Sep 2018	0.600	Sep 2019	0.602	Oct 2019	-		0.602	Continuing	Continuing	Continuing
Test & Evaluation 5	C/CPFF	SAIC : Falls Church, VA	9.681	-		-		-		-		-	0.000	9.681	-
Test & Evaluation 6	C/CPAF	SAIC : Falls Church, VA	23.133	-		-		-		-		-	0.000	23.133	-
Test & Evaluation 7	C/CPFF	Pragmatics : McLean, VA	0.308	-		-		-		-		-	0.000	0.308	-
Test & Evaluation 8	MIPR	JITC : Various	0.005	-		-		-		-		-	0.000	0.005	-
Test & Evaluation 9	MIPR	JITC : Various	0.897	-		-		-		-		-	0.000	0.897	-
Test & Evaluation 10	MIPR	DISA FSO : Various	1.059	-		-		-		-		-	0.000	1.059	-
Test & Evaluation 11	MIPR	TEMC Test Support : Various	0.229	-		-		-		-		-	0.000	0.229	-
Test & Evaluation 12	MIPR	DISA TEMC : Falls Church, VA	0.971	-		-		-		-		-	0.000	0.971	-
Test & Evaluation 13	MIPR	STRATCOM : Offut, NE	1.155	-		-		-		-		-	0.000	1.155	-
Test & Evaluation 14	MIPR	DISA FSO : Falls Church, VA	1.200	-		-		-		-		-	0.000	1.200	-
Test & Evaluation 15	C/CPFF	TQI : Falls Church, VA	1.698	-		-		-		-		-	0.000	1.698	-
Test & Evaluation 16	C/CPFF	TQI : Falls Church, VA	0.494	-		-		-		-		-	0.000	0.494	-
Test & Evaluation 17	MIPR	Slidell : Various	0.436	-		-		-		-		-	0.000	0.436	-
Subtotal			85.931	2.100		2.029		2.302		-		2.302	Continuing	Continuing	N/A

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 11 of 14

R-1 Line #218

Volume 5 - 145

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency | | **Date:** March 2019

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0303150K / *Global Command and Control System*	Project (Number/Name) CC01 / *Global Command and Control System-Joint (GCCS-J)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	MIPR	SSC Atlantic : Charleston, SC	3.759	-		-		-		-		-	0.000	3.759	-
		Subtotal	3.759	-		-		-		-		-	0.000	3.759	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	531.529	41.126	46.900	25.218	-	25.218	Continuing	Continuing	N/A

Remarks

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 12 of 14

R-1 Line #218

Volume 5 - 146

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Development and Strategic Planning																									██	██	██	██
Integration and Test																									██	██	██	██

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 13 of 14

R-1 Line #218

Volume 5 - 147

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303150K *I Global Command and Control System*	**Project (Number/Name)** CC01 *I Global Command and Control System-Joint (GCCS-J)*

Schedule Details

Events	**Start**		**End**	
	Quarter	**Year**	**Quarter**	**Year**
Development and Strategic Planning	1	2017	4	2024
Integration and Test	1	2017	4	2024

PE 0303150K: *Global Command and Control System*
Defense Information Systems Agency

UNCLASSIFIED
Page 14 of 14

R-1 Line #218

Volume 5 - 148

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*						
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	184.265	8.377	7.457	21.698	-	21.698	9.836	9.251	8.292	8.446	Continuing	Continuing
JS1: *Joint Spectrum Center*	184.265	8.377	7.457	21.698	-	21.698	9.836	9.251	8.292	8.446	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Spectrum Organization (DSO) provides a full array of electromagnetic spectrum services and capabilities, ranging from short notice on-the-ground operational support at the forward edge, to long range planning in pursuit of national strategic objectives. These services/capabilities are in direct support of Combatant Commanders, the Department of Defense (DoD) Chief Information Officer, Military Services, and Defense Agencies. The DSO is the focal point for electromagnetic spectrum analysis and the development of integrated spectrum plans and strategies to address current and future needs for DoD spectrum access. In addition, DSO serves as DoD's spectrum advocate at national and international forums and conducts extensive outreach to both industry and government. DSO also implements enterprise spectrum management capabilities to enhance spectrum efficiency and agility to improve spectrum-dependent capabilities in support of United States and Coalition operations. This includes acquiring, implementing and sustaining the Global Electromagnetic Spectrum Information System (GEMSIS) which provides an integrated catalog of joint net-centric spectrum management tools and services. Electromagnetic Spectrum Management enables information dominance through effective spectrum operations.

B. Program Change Summary ($ in Millions)

	FY 2018	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	8.750	7.570	9.698	-	9.698
Current President's Budget	8.377	7.457	21.698	-	21.698
Total Adjustments	-0.373	-0.113	12.000	-	12.000
• Congressional General Reductions	-0.044	-0.113			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.259	-			
• Adjustment	-0.070	-	12.000	-	12.000

Change Summary Explanation

The decrease of -$0.373 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs (-$0.259), a congressional general reduction for the Federally Funded Research and Development Centers (FFRDC) of -$0.044, and decrease of -$0.070 that will result in fewer Hazards of Electromagnetic Radiation to Ordnance (HERO) electromagnetic environmental effects surveys conducted.

The decrease of -$0.113 in FY 2019 is due to a congressional general reduction (FFRDC).

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 10

R-1 Line #219

Volume 5 - 149

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*	

The increase of +$12.000 in FY 2020 is to begin foundational efforts in support of electromagnetic (EM) battle management (EMBM) to enable effective joint electromagnetic spectrum (EMS) operations. The funds support the integration of data feeds and analytics with the Joint Spectrum Data Repository (JSDR) to provide holistic spectrum situational awareness and are critical to understanding the EM operating environment and to inform military decision-makers. Spectrum maneuverability will be critical to future military operations engaging near-peer adversaries and will be dependent on a clear understanding of the spectrum operational environment.

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 10

R-1 Line #219

Volume 5 - 150

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency										**Date:** March 2019	

Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*	**Project (Number/Name)** JS1 *I Joint Spectrum Center*

COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
JS1: *Joint Spectrum Center*	184.265	8.377	7.457	21.698	-	21.698	9.836	9.251	8.292	8.446	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 2018**	**FY 2019**	**FY 2020**
Title: Advanced Spectrum Tools	0.883	0.883	0.883

Description: The Joint Spectrum Data Repository and Tools program supports development of spectrum management tools, spectrum modeling and simulation capabilities, spectrum database development, and spectrum data transformation and standardization. This program provides the Combatant Commands (COCOMs) and Military Services with the spectrum management tools and associated databases to manage spectrum resources at the strategic and operational level. It also provides the DoD acquisition community with analytical tools to conduct Electromagnetic Environmental Effects (E3) analyses and Spectrum Supportability Risk Assessments (SSRA).

FY 2019 Plans:
Will continue to make enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools.

FY 2020 Plans:
Will continue to make enhancements to Spectrum Technology and Testbed Initiative in support of Spectrum Engineering Analysis and Relocation efforts. Supports evaluation of future and existing spectrum analysis tools.

FY 2019 to FY 2020 Increase/Decrease Statement:

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*	**Project (Number/Name)** JS1 *I Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
No change statement required.			
Title: DoD Electromagnetic Environmental Effects (E3) Program	3.315	3.315	4.203
Description: The DoD E3 Program supports the Joint Capabilities Integration and Development System (JCIDS) process and the DoD acquisition process to ensure that E3 control and spectrum supportability are incorporated into the development, testing, and procurement of information technology and National Security Systems. The E3 Program also supports the development of the Joint Ordnance E3 Risk Assessment Database (JOERAD) and Hazards of Electromagnetic Radiation to Ordnance (HERO) electromagnetic environmental effects surveys in support of the COCOMs and Joint Task Forces. JOERAD develops algorithms and provides analytical capabilities to perform real-time risk assessments to evaluate platform/system safety and identify equipment limitations in the operational EM environment. JOERAD enables operators to make critical decisions about the hazards associated with the use of ordnance within complex EM environments. A SSRA is performed by program managers and materiel developers on all programs that are acquiring or incorporating spectrum-dependent systems or equipment per DoDI 4650.1. These assessments encompassed regulatory, technical, and operational spectrum and E3 issues and associated risks. *FY 2019 Plans:* Will continue to conduct Joint Ordnance Commanders Group (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 equipment which emits radio frequencies (emitter) surveys for ordnance safety database validation and update the DoD ordnance Radio Frequency (RF) safety requirements. Will update MIL-HDBK-235, "Electromagnetic Environment (EME) Profiles" and develop EME (profiles to address 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 Information Support Plan (ISP) acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University. *FY 2020 Plans:* Will continue to conduct JOCG HERO Subgroup meetings, support the JOCG Executive Steering Committee and develop and maintain the Services' HERO susceptibility data records. Will conduct forward deployed base HERO surveys for the COCOMs/Services, and CONUS based emitter surveys for ordnance safety database validation and update the DoD ordnance RF safety requirements. Will update MIL-HDBK-235, "EME Profiles" and develop EME profiles to address blue force jammer and electronic warfare environments. Will conduct monthly DoD E3 Integrated Product Team (IPT) Meetings. Will provide technical support to DoD CIO, the Joint Staff, and other DoD Components on E3, spectrum, hazards of EM radiation matters. Will review JCIDS and			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*	**Project (Number/Name)** JS1 *I Joint Spectrum Center*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
ISP acquisition documents assigned by the Joint Staff and DoD CIO and update guidance instructions as necessary. Will provide E3 and SS training to the DoD Components and develop/maintain training curricula at the Defense Acquisition University. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase of +$0.888 from FY 2019 to FY 2020 is attributed to additional forward deployed base HERO surveys for COCOMs/ Services and any CONUS based emitter surveys for ordnance safety database validation. This will also allow for an increase in the number of E3 and SS training events delivered to DoD Components.			
Title: Emerging Spectrum Technologies (EST) ***Description:*** DSO has the responsibility to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization through technological innovation. The goal of the EST program is to identify the opportunities and risks associated with emerging spectrum-related technologies in the early stages of the technology development, influence and lead technology development in order to maximize DoD spectrum utilization, and ensure that spectrum policies incorporate optimal technology to meet DoD mission requirements. Within EST there is an increased focus on Dynamic Spectrum Access (DSA). DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements. ***FY 2019 Plans:*** Will continue collaboration efforts with the Science and Technology community (including Assistant Secretary of Defense fore Research and Engineering (ASDR&E), Service Labs and Defense Advance Research Projects Agency (DARPA)) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Continue to develop initiatives that include the roadmap, standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations. ***FY 2020 Plans:*** Will continue collaboration efforts with the Science and Technology community (including ASDR&E, Service Labs and DARPA) to develop and execute the technology roadmaps and integration strategies that result in system flexibility and operational agility. Revisions will be made to the current spectrum management architecture to reflect transforming spectrum operations through application of EST in accordance with the new DoD EMS Spectrum Strategy. Prototype capabilities that provide increased operational agility will be developed and demonstrated. Will continue to develop initiatives including the roadmap,	3.342	2.453	3.800

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 10

R-1 Line #219

Volume 5 - 153

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019	
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
standards, architecture, and business processes to exploit and/or minimize the impact of emerging technologies on DoD spectrum operations. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$1.347 from FY 2019 to FY 2020 is due to an increase in the number of prototype assessments that will be accomplished during FY 2020.			
Title: Global Electromagnetic Spectrum Information System (GEMSIS) *Description:* The GEMSIS is a net centric capability that will provide operational commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations. *FY 2019 Plans:* Will continue SPECTRUM XXI (SXXI) Legacy, End-to-End Supportability System (E2ESS), and Joint Spectrum Data Repository (JSDR) maintenance and version releases. *FY 2020 Plans:* Will continue SXXI Legacy, E2ESS, and JSDR maintenance and version releases. *FY 2019 to FY 2020 Increase/Decrease Statement:* The increase of +$12.006 in FY 2019 to 2020 is due to adjustments in contract requirements to support software version releases and to begin foundational electromagnetic (EM) battle management (EMBM) efforts to enable effective joint electromagnetic spectrum (EMS) operations.	0.837	0.806	12.812
Accomplishments/Planned Programs Subtotals	8.377	7.457	21.698

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/PE 0303153K: *O&M, DW*	34.392	34.409	34.270	-	34.270	34.902	35.743	36.408	36.930	Continuing	Continuing

Remarks

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 10

R-1 Line #219

Volume 5 - 154

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303153K *I Defense Spectrum Organization*	**Project (Number/Name)** JS1 *I Joint Spectrum Center*

D. Acquisition Strategy

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

E. Performance Metrics

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

All metric results are classified.

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency
UNCLASSIFIED
Page 7 of 10
R-1 Line #219
Volume 5 - 155

UNCLASSIFIED

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency												**Date:** March 2019	

Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / Defense Spectrum Organization	**Project (Number/Name)** JS1 / Joint Spectrum Center

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services 1	C/FFP	Multi : Various	167.451	8.051	Oct 2017	7.127	Oct 2018	9.368	Nov 2019	-		9.368	Continuing	Continuing	Continuing
Technical Engineering Services 2	MIPR	Various : Various	5.443	0.326	Oct 2017	0.330	Oct 2018	12.000	Oct 2019	-		12.000	Continuing	Continuing	Continuing
		Subtotal	172.894	8.377		7.457		21.368		-		21.368	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	MIPR	JITC : Ft. Huachuca	2.312	-		-		-		-		-	0.000	2.312	-
		Subtotal	2.312	-		-		-		-		-	0.000	2.312	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	FFRDC	MITRE : Ft. Monmouth, NJ	9.059	-		-		0.330	Nov 2019	-		0.330	Continuing	Continuing	Continuing
		Subtotal	9.059	-		-		0.330		-		0.330	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	184.265	8.377	7.457	21.698	-	21.698	Continuing	Continuing	N/A

Remarks

PE 0303153K: Defense Spectrum Organization
Defense Information Systems Agency
UNCLASSIFIED
Page 8 of 10
R-1 Line #219
Volume 5 - 156

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Joint Spectrum Center																												
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases																										▄	▄	
JOERAD Releases																										▄	▄	
Emerging Spectrum Technology Research Projects																										▄	▄	
Spectrum Data Sharing Capability Deployments																										▄	▄	
Increment Two GEMSIS																									▄	▄	▄	
E3 Program Outputs																									▄	▄	▄	

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Joint Spectrum Center																												
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases	██																											
JOERAD Releases	██																											
Emerging Spectrum Technology Research Projects	██																											
Spectrum Data Sharing Capability Deployments	██																											
Increment Two GEMSIS	█████████████████████																											
E3 Program Outputs	██																											

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303153K / *Defense Spectrum Organization*	**Project (Number/Name)** JS1 / *Joint Spectrum Center*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Joint Spectrum Center				
Spectrum Tool (SXXI, Coalition Joint Spectrum Management Planning Tool (CJSMPT), JSDR) Version Releases	3	2017	4	2024
JOERAD Releases	3	2017	4	2024
Emerging Spectrum Technology Research Projects	3	2017	4	2024
Spectrum Data Sharing Capability Deployments	3	2017	4	2024
Increment Two GEMSIS	1	2017	4	2019
E3 Program Outputs	1	2017	4	2024

PE 0303153K: *Defense Spectrum Organization*
Defense Information Systems Agency

UNCLASSIFIED
Page 10 of 10

R-1 Line #219

Volume 5 - 158

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0303228K I *Joint Information Environment*						

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	2.789	4.550	7.947	18.077	-	18.077	2.882	2.947	3.021	3.077	Continuing	Continuing
JE1: *Joint Regional Security Stacks*	2.789	4.550	7.947	18.077	-	18.077	2.882	2.947	3.021	3.077	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	4.689	7.947	2.797	-	2.797
Current President's Budget	4.550	7.947	18.077	-	18.077
Total Adjustments	-0.139	0.000	15.280	-	15.280
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.139	-			
• Adjustment	-	-	15.280	-	15.280

Change Summary Explanation

Decrease in FY 2018 of -$0.139 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency	Date: March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303228K *I Joint Information Environment*

Increase in FY 2020 of +$15.280 primarily due to support architecture development and conduct developmental test and evaluation on pilot capability for the next-generation JRSS. The funding will also support testing of additional enhancements to JRSS 2.0 capabilities, integration/testing of tech refresh items into architecture, as well as development and testing of (DoD Cyber Situational Awareness Analytic Capabilities) CSAAC analytics.

PE 0303228K: *Joint Information Environment*
Defense Information Systems Agency
UNCLASSIFIED
Page 2 of 8
R-1 Line #220
Volume 5 - 160

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400 / 7				**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*							**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
JE1: *Joint Regional Security Stacks*	2.789	4.550	7.947	18.077	-	18.077	2.882	2.947	3.021	3.077	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2018	FY 2019	FY 2020
Title: Joint Regional Security Stacks	4.550	7.947	18.077
Description: The Joint Regional Security Stack (JRSS) is a joint DoD security architecture deployed regionally throughout the world. Each of the 23 NIPR and 25 SIPR stacks is comprised of complementary defensive security solutions that remove redundant Information Assurance (IA) protections; leverages enterprise defensive capabilities with standardized security suites; protects the enclaves after the separation of server and user assets; and provides the tool sets necessary to monitor and control all security mechanisms throughout DoD's Joint Information Environment. *FY 2019 Plans:* Will provide integration, testing, and development of JRSS/JMS hardware/software to support tech refresh of end-of-support/end-of-life appliances. Support the development and testing of DoD Cyber Situational Awareness Analytic Capabilities (CSAAC) analytics. *FY 2020 Plans:*			

R-1 Line #220

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Will provide integration, testing, and development of JRSS/JMS hardware/software to support tech refresh of end-of-support/ end-of-life appliances. Support the development and testing of DoD Cyber Situational Awareness Analytic Capabilities (CSAAC) analytics. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase of +$10.130 from FY 2019 to FY 2020 is attributed to architecting, piloting, and testing the proof-of-concept/next generation version of the Joint Regional Security Stack (JRSS).			
Accomplishments/Planned Programs Subtotals	4.550	7.947	18.077

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

D. Acquisition Strategy
 N/A

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

 FY 2018 Actual: 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. MET

 FY 2019 Target: 100% successful testing of JRSS tech refresh hardware/software and testing of six medium complexity analytics.

PE 0303228K: *Joint Information Environment*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 8

R-1 Line #220

Volume 5 - 162

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303228K *I Joint Information Environment*	**Project (Number/Name)** JE1 *I Joint Regional Security Stacks*

FY 2020 (Estimated): 100% successful testing of JRSS tech refresh hardware/software and testing of six medium complexity analytics.

PE 0303228K: *Joint Information Environment*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 8

R-1 Line #220

Volume 5 - 163

UNCLASSIFIED

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency | | | | | | | | | | | | | | Date: March 2019 | | |

| Appropriation/Budget Activity 0400 / 7 | R-1 Program Element (Number/Name) PE 0303228K / Joint Information Environment | Project (Number/Name) JE1 / Joint Regional Security Stacks |

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	Various	Various : Various	0.616	0.916	Oct 2017	0.000		-		-		-	0.000	1.532	-
Test and Evaluation Support	Various	JITC : Various	0.384	0.684	Oct 2017	1.000	Oct 2018	0.500	Oct 2019	-		0.500	Continuing	Continuing	-
Integration Test and Modification	Various	Multiple : Various	0.500	0.800	Dec 2017	0.947	Dec 2018	0.537	Dec 2019	-		0.537	Continuing	Continuing	-
Tech Refresh/Functionality Testing	Various	Multiple : Various	1.289	2.150	Oct 2017	1.900	Dec 2018	0.750	Dec 2019	-		0.750	Continuing	Continuing	-
Analytic Development & Testing (CSAAC)	Various	Multiple : Various	0.000	0.000		4.100	Dec 2018	1.010	Dec 2019	-		1.010	Continuing	Continuing	-
Next generation JRSS	Various	TBD : TBD	-	-		-		15.280	Dec 2019	-		15.280	Continuing	Continuing	-
Subtotal			2.789	4.550		7.947		18.077		-		18.077	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.789	4.550	7.947	18.077	-	18.077	Continuing	Continuing	N/A

Remarks

PE 0303228K: Joint Information Environment
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 8

R-1 Line #220

Volume 5 - 164

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303228K / *Joint Information Environment*	**Project (Number/Name)** JE1 / *Joint Regional Security Stacks*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JIE																												
JIE																									███	███	███	███

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
JIE																												
JIE	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███				

PE 0303228K: *Joint Information Environment*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 8

R-1 Line #220

Volume 5 - 165

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303228K *I Joint Information Environment*	**Project (Number/Name)** JE1 *I Joint Regional Security Stacks*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
JIE				
JIE	1	2017	1	2024

PE 0303228K: *Joint Information Environment*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 8

R-1 Line #220

Volume 5 - 166

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303267K *I Auctioned Spectrum Relocation Fund*	

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	15.804	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
JS1: *Auctioned Spectrum Relocation Fund*	-	15.804	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-

A. Mission Description and Budget Item Justification

 Funding supports Spectrum relocation and sharing activities.

B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	15.804	0.000	0.000	-	0.000
Total Adjustments	15.804	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment	15.804	-	-	-	-

Change Summary Explanation

Increase of +$15.804 in FY 2018 represent funds received during execution through a transfer from OMB.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303267K *I Auctioned Spectrum Relocation Fund*	**Project (Number/Name)** JS1 *I Auctioned Spectrum Relocation Fund*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
JS1: *Auctioned Spectrum Relocation Fund*	-	15.804	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding supports Spectrum relocation and sharing activities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Auctioned Spectrum Relocation Fund	15.804	0.000	0.000
Description: Funding supports Spectrum relocation and sharing activities *FY 2019 Plans:* N/A *FY 2020 Plans:* N/A *FY 2019 to FY 2020 Increase/Decrease Statement:* N/A			
Accomplishments/Planned Programs Subtotals	15.804	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency												**Date:** March 2019		
Appropriation/Budget Activity 0400 *I* 7							**R-1 Program Element (Number/Name)** PE 0303267K *I Auctioned Spectrum Relocation Fund*					**Project (Number/Name)** JS1 *I Auctioned Spectrum Relocation Fund*		

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Support spectrum relocation and sharing activities	Various	Various : Various	-	15.804		-		-		-		-	-	-	-
Subtotal			-	15.804		-		-		-		-	-	-	N/A

	Prior Years	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	15.804	0.000	-	-	-	-	-	N/A

Remarks

PE 0303267K: *Auctioned Spectrum Relocation Fund*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 5

R-1 Line #221

Volume 5 - 169

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303267K *I Auctioned Spectrum Relocation Fund*	**Project (Number/Name)** JS1 *I Auctioned Spectrum Relocation Fund*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Auctioned Spectrum Relocation Fund																												
Support spectrum relocation activities	███████																											

PE 0303267K: *Auctioned Spectrum Relocation Fund*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 5

R-1 Line #221

Volume 5 - 170

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303267K *I Auctioned Spectrum Relocation Fund*	**Project (Number/Name)** JS1 *I Auctioned Spectrum Relocation Fund*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Auctioned Spectrum Relocation Fund				
Support spectrum relocation activities	1	2018	4	2018

PE 0303267K: *Auctioned Spectrum Relocation Fund*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 5

R-1 Line #221

Volume 5 - 171

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency		Date: March 2019

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

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	75.000	41.743	55.400	44.001	-	44.001	14.500	9.801	9.906	10.094	Continuing	Continuing
KA1: Federal Investigative Services Information Technology	75.000	41.743	55.400	44.001	-	44.001	14.500	9.801	9.906	10.094	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	50.000	39.400	9.556	-	9.556
Current President's Budget	41.743	55.400	44.001	-	44.001
Total Adjustments	-8.257	16.000	34.445	-	34.445
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-5.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	16.000			
• SBIR/STTR Transfer	-1.479	-			
• Reprogrammings	-	-	21.000	-	21.000
• Adjustment	-1.778	-	13.445	-	13.445

Change Summary Explanation

Decrease of -$8.257 in FY 2018 is due to congressional directed reduction of -$5.000, transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs of -$1.479, and reduction of -$1.778 due a delay in Investigation Management (IM) correcting the investment profile for execution.

Increase of +16.000 in FY 2019 is due to reprogramming funds from Operations and Maintenance (O&M) to Research, Development, Testing and Evaluation (RDT&E) to fund Defense Manpower Data Center (DMDC) capabilities that are part of a larger development effort.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303430K *I Federal Investigative Services Information Technology*	

Increase of +$34.445 in FY 2020 is to develop built-in sustainment features and advance metrics, and enhance the secure data warehouse; includes oversight and management product work, specifies the initial hardware, provides requirements for development, provides support for requirement accomplishment, coordination, data protection, conduct testing, and after completion to retain all responsibility of application enhancements (+$13.445). Also, the increase of + $21.000 is due to the reprogramming from O&M to RDT&E for IM development to provide the business logic, work flow, rules, algorithms, etc. for case initiation through closure. Funding is required for a new, transformational continuous evaluation (CE) capability that includes machine learning and natural language processing as part of an Artificial Intelligence Platform as a Service. The full architectural stack includes an underlying Data Brokerage as a Service and is being constructed as a prototype application to replace the DoD's existing CE application. In addition to development capabilities, additional funding is required for build-out of Agile pipeline that includes Development Security Operations which includes Cyber and Test activities to maintain Agile sprint and increment cadence.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Background Investigation Information Technology Systems	41.743	55.400	44.001

Description: Implements the decision by the Interagency Deputies Committee and the Office of Management and Budget (OMB) to transfer responsibility for the development and sustainment of new Federal Government background investigation information technology (IT) system(s) from the OPM to the DoD beginning in FY 2017.

FY 2019 Plans:
DoD will continue to enhance and improve the capability of the Initial Operational Capability (IOC) schedule for delivery at the end of FY18 to achieve full operational capability (FOC) at the end of FY19 by adding automation pulls from various data sources; providing capability for insider threat analysis; development and deployment of continuous evaluation capabilities; and tailoring to non-DoD systems. The FOC system will continue to defend against cyber-attacks and improve defensibility. This FOC system will provide the full suite of background investigation services to the whole federal government, not just DoD.

FY 2020 Plans:
DoD will continue to enhance and improve the capabilities. As part of an Agile development process, the National Background Investigation System will deploy additional releases in FY20 to improve automation of the background investigative process, improve analytic to address insider threat analysis and improve continuous evaluation capabilities and develop capabilities to meet additional Federal Agencies requirements. The system will continue to defend against cyber-attacks and improve defensibility by meeting new and evolving threats.

FY 2019 to FY 2020 Increase/Decrease Statement:
The decrease of -$11.399 from FY 2019 to FY 2020 is the result of the completion of all initial major developmental implementation and testing activities to include: initial demonstration of Investigative Case Management, the switching over of

PE 0303430K: *Federal Investigative Services Informati...*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 7

R-1 Line #222

Volume 5 - 174

UNCLASSIFIED

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0303430K *I Federal Investigative Services Information Technology*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
vetting adjudication to the new E-Application Subject system, and meeting user requirements for the Position Designation tool (that assesses the duties and responsibilities of government employees).			
Accomplishments/Planned Programs Subtotals	41.743	55.400	44.001

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• 0303430K, O&M: *Background Investigation Information Technology Systems*	47.138	64.745	82.046	-	82.046	112.322	119.789	122.451	126.194	Continuing	Continuing

Remarks

E. Acquisition Strategy

The NBIS program has assessed market solutions, built out capability solutions, and reduced technical risk through a series of component-level prototype and pilot efforts. The NBIS Program Office (PMO) will leverage the lessons learned from these prototype and pilot efforts and incorporate into the system-level build and integration of the NBIS prototype. Specifically, lessons learned from the Investigative Case Management (ICM) prototype will be incorporated into the ICM Request For Proposal (RFP) to leverage Industry's customized Commercial-off-the-Shelf (COTS) solutions. The ICM & Integration Request for Information (RFI) and Request for White Papers (RWP) were released in 4th Quarter FY 2017 and the RFP in 1st Quarter FY 2018; the end result was the IM Other Transaction Authority (OTA) awarded in 3rd Quarter FY 2018.

F. Performance Metrics

Processing Capacity:
Threshold: System shall have the capability to process 2 million cases per year.
Objective: System shall have the capability to process 3 million cases per year.

FY 2018 Planned: N/A
FY 2019 Estimated: 1 thousand cases (IOC)
FY 2020 Estimated: 2 thousand cases (IOC)

Availability:
Threshold: System shall have a continuous availability target of 99.9%
Objective: System shall have a continuous availability target of 99.99%

PE 0303430K: *Federal Investigative Services Informati...*
Defense Information Systems Agency
UNCLASSIFIED
Page 3 of 7
R-1 Line #222
Volume 5 - 175

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency	**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303430K *I Federal Investigative Services Information Technology*

FY 2018 Planned: N/A
FY 2019 Estimated: 99.9%
FY 2020 Estimated: 99.9%

Security:
Threshold: System shall operate within the Federal Information Security Management Act (FISMA) standards for a High, High, Moderate system with low and/or moderate vulnerabilities.
Objective: System shall operate within the FISMA standards for a High, High, Moderate system with low vulnerabilities

FY 2018 Planned: N/A / Actual: The system does not operate within the FISMA standards for High, High, Moderate system with low vulnerabilities
FY 2019 Estimated: High, High, Moderate system with low and or medium vulnerabilities.
FY 2020 Estimated: High, High, Moderate system with low and or medium vulnerabilities.

PE 0303430K: *Federal Investigative Services Informati...*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 7

R-1 Line #222

Volume 5 - 176

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency													Date: March 2019		

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

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering	C/Various	Various : Various	-	-		3.116	Dec 2018	1.040	Dec 2019	-		1.040	Continuing	Continuing	-
Application Development	C/Various	Various : Various	75.000	41.743	Oct 2017	45.454	Nov 2018	38.214	Dec 2019	-		38.214	Continuing	Continuing	-
Testing	C/Various	Various : Various	-	-		6.830	Dec 2018	4.747	Dec 2019	-		4.747	Continuing	Continuing	-
Subtotal			75.000	41.743		55.400		44.001		-		44.001	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	75.000	41.743	55.400	44.001	-	44.001	Continuing	Continuing	N/A

Remarks

PE 0303430K: *Federal Investigative Services Informati...*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 7

R-1 Line #222

Volume 5 - 177

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0303430K / *Federal Investigative Services Information Technology*	**Project (Number/Name)** KA1 / *Federal Investigative Services Information Technology*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NBIS																												
IOC Application Development																										▮	▮	▮
IOC Testing																											▮	▮
IOC Implementation																												▮
FOC Development																												▮
FOC Testing																										▮	▮	▮
FOC Implementation																												▮
Post Deployment Improvement - Scheduled Releases																												
Post Deployment Improvement - Scheduled Releases																												

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
NBIS																												
IOC Application Development	▮	▮	▮																									
IOC Testing	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮																	
IOC Implementation	▮	▮	▮	▮	▮	▮	▮	▮	▮																			
FOC Development	▮	▮	▮	▮	▮	▮	▮																					
FOC Testing	▮	▮	▮	▮	▮	▮	▮	▮	▮																			
FOC Implementation	▮	▮	▮	▮	▮	▮	▮	▮	▮																			
Post Deployment Improvement - Scheduled Releases																												
Post Deployment Improvement - Scheduled Releases								▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮

PE 0303430K: *Federal Investigative Services Informati...*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 7

R-1 Line #222

Volume 5 - 178

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency			**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0303430K *I Federal Investigative Services Information Technology*	**Project (Number/Name)** KA1 *I Federal Investigative Services Information Technology*	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NBIS				
IOC Application Development	2	2017	3	2018
IOC Testing	3	2017	4	2020
IOC Implementation	4	2017	1	2020
FOC Development	4	2017	2	2019
FOC Testing	2	2017	4	2019
FOC Implementation	4	2017	1	2020
Post Deployment Improvement - Scheduled Releases				
Post Deployment Improvement - Scheduled Releases	1	2020	4	2024

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency											**Date:** March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305103K *I Cybersecurity Initiative*							
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	18.520	1.644	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
XXX: *Cybersecurity Initiative*	18.520	1.644	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification
 Classified

B. Program Change Summary ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**
Previous President's Budget	1.686	0.000	0.000	-	0.000
Current President's Budget	1.644	0.000	0.000	-	0.000
Total Adjustments	-0.042	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.042	-			

Change Summary Explanation
Classified.

PE 0305103K: *Cybersecurity Initiative*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 5

R-1 Line #225

Volume 5 - 181

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency										**Date:** March 2019	

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 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
XXX: *Cybersecurity Initiative*	18.520	1.644	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

Classified

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Cyber Security Range	1.644	-	-
Accomplishments/Planned Programs Subtotals	1.644	-	-

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

 Classified

D. Acquisition Strategy

 Classified

E. Performance Metrics

 Classified

PE 0305103K: *Cybersecurity Initiative*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 5

R-1 Line #225

Volume 5 - 182

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency													**Date:** March 2019		
Appropriation/Budget Activity 0400 **/** 7						**R-1 Program Element (Number/Name)** PE 0305103K **/** *Cybersecurity Initiative*						**Project (Number/Name)** XXX **/** *Cybersecurity Initiative*			

Product Development ($ in Millions)					**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Classified	Various	Classified : Classified	18.520	1.644	Oct 2017	-		-		-		-	Continuing	Continuing	-
Subtotal			18.520	1.644		-		-		-		-	Continuing	Continuing	N/A

		Prior Years	**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals		18.520	1.644		0.000		-		-		-	Continuing	Continuing	N/A

Remarks

PE 0305103K: *Cybersecurity Initiative*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 5

R-1 Line #225

Volume 5 - 183

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 7	**R-1 Program Element (Number/Name)** PE 0305103K **/** *Cybersecurity Initiative*	**Project (Number/Name)** XXX **/** *Cybersecurity Initiative*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Classified																												
Classified																											▮	

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Classified																												
Classified	▮	▮	▮																									

PE 0305103K: *Cybersecurity Initiative*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 5

R-1 Line #225

Volume 5 - 184

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency					**Date:** March 2019
Appropriation/Budget Activity 0400 / 7		**R-1 Program Element (Number/Name)** PE 0305103K / *Cybersecurity Initiative*		**Project (Number/Name)** XXX / *Cybersecurity Initiative*	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Classified				
Classified	4	2017	3	2018

PE 0305103K: *Cybersecurity Initiative*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 5

R-1 Line #225

Volume 5 - 185

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305208K *I Distributed Common Ground/Surface Systems*						

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	53.168	2.959	2.970	2.981	-	2.981	3.050	3.112	3.174	3.235	Continuing	Continuing
NF1: *Distributed Common Ground/Surface Systems*	53.168	2.959	2.970	2.981	-	2.981	3.050	3.112	3.174	3.235	Continuing	Continuing

A. Mission Description and Budget Item Justification

As the sole joint interoperability certification agent, the Joint Interoperability Test Command (JITC) established and maintains a Distributed Development and Test Enterprise (T&E) 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 (OUSD(I)). DCGS is an integral and critical component of the overall DoD Intelligence, Surveillance, and Reconnaissance interoperability and data integration strategy which provides world-wide capabilities to receive, process, exploit, and disseminate data from airborne and national reconnaissance sensors/platforms and commercial sources.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	3.049	2.970	2.981	-	2.981
Current President's Budget	2.959	2.970	2.981	-	2.981
Total Adjustments	-0.090	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.090	-			

Change Summary Explanation

The decrease of -$0.090 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

PE 0305208K: *Distributed Common Ground/Surface System...*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 7

R-1 Line #238

Volume 5 - 187

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

| Appropriation/Budget Activity 0400 I 7 | | | | R-1 Program Element (Number/Name) PE 0305208K I Distributed Common Ground/Surface Systems | | | | | | | Project (Number/Name) NF1 I Distributed Common Ground/Surface Systems | |

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
NF1: *Distributed Common Ground/Surface Systems*	53.168	2.959	2.970	2.981	-	2.981	3.050	3.112	3.174	3.235	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Interoperability Test Command (JITC) coordinates with the Military Services and Defense Intelligence Agencies to conduct Joint/Distributed Common Ground/ Surface System (DCGS) testing and analysis, including event coordination, configuration, instrumentation and integration functions on the Distributed Development and Test Enterprise (DDTE). Under the DCGS Governance, this effort, referred to as the DCGS Test and Evaluation (T&E) Focus Team (FT), is composed of three parts: the DDTE Focus Group, providing and sustaining a distributed development network; the Strategy Focus Group, looking at current and future net-enabled enterprise T&E methods; and the Execution Focus Group, which leverages the Strategy Focus Group's methodologies in executing DCGS Enterprise assessment events, such as the annual DCGS demonstration, ENTERPRISE CHALLENGE. These efforts improve systems engineering and T&E throughout all phases of the DCGS life-cycle, resulting in improved capabilities to share net-centric data and services between the DCGS Programs of Record (PoRs) and the overarching Defense Intelligence Information Enterprise (DI2E).

Operates and maintains the DDTE, providing DCGS PoRs a virtual, operationally-relevant assessment environment maintaining connectivity between Service facilities, National Agency capabilities, and Coalition partners. DDTE allows robust integration of modeling and simulation T&E capabilities across Joint DCGS events without introducing vulnerabilities to operational Command and Control networks and has enabled improvements in systems engineering, instrumentation and T&E throughout all phases of the DCGS life cycle.

DCGS PoRs and Coalition partners use the DDTE network, which supports the net-centric maturity assessment of the DCGS Enterprise under the DCGS Governance, to integrate architecture, standards, and capabilities for implementation of the DCGS Integration Backbone and support the migration to net-centricity, including DCGS Enterprise services for the Military Departments, DCGS-Special Operations Forces and the DCGS Intelligence Community. National Agency capabilities supporting DCGS include Geospatial Intelligence, Signals Intelligence, Measurement and Signature Intelligence and Human Intelligence, which are integrated and tested in the DDTE domain.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Distributed Common Ground/Surface Systems (DCGS) *FY 2019 Plans:* Continue to revise and evolve T&E data collection techniques and analysis strategies in support of DCGS Enterprise community members acquisition programs' interoperability as they integrate capabilities and services solutions to address the operational gaps identified in the Office of the Under Secretary of Defense for Intelligence (OUSD(I)) sponsored Distributed Common Ground/Surface System Enterprise Capabilities Based Assessment. Continue to plan, develop and execute enterprise-level	2.959	2.970	2.981

PE 0305208K: *Distributed Common Ground/Surface System...*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 7

R-1 Line #238

Volume 5 - 188

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0305208K *I Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 *I Distributed Common Ground/Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
data collection during multiple yearly test events. Continue to support DDTE, provide enhanced functionality, expand T&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". 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. Continue to develop T&E methodology and tools to support 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. Continue to conduct compliance testing of data, metadata, and web services against established standards to enhance the sharing and promote reuse of net centric solutions. Continuing to expand 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. All data collected by these assessment efforts are reflected in an annual DCGS Enterprise Assessment Report that delineates how well the DCGS Enterprise shows progress over time in meeting the capabilities and closing the gaps reflected in the 2016 DCGS Enterprise Initial Capabilities Document. *FY 2020 Plans:* Continue to revise and evolve test and evaluation (T&E) data collection techniques and analysis strategies in support of DCGS Enterprise community members acquisition programs' interoperability as they integrate capabilities and services solutions to address the operational gaps identified in the OUDS(I) sponsored Distributed Common Ground/Surface System Enterprise Capabilities Based Assessment. Continue to plan, develop and execute enterprise-level data collection during multiple yearly test events. Continue to support DDTE, provide enhanced functionality, expand T&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". 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. Continue to develop T&E methodology and tools to support 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. Continue to conduct compliance testing of data, metadata, and web services against established standards to enhance the sharing and promote reuse of net centric solutions. Continuing to expand TaaS capabilities that enable DCGS entities and other COIs to test for standards compliance during the development and acquisition processes. All data collected by these assessment efforts are reflected in an annual DCGS Enterprise Assessment Report that delineates how well the DCGS Enterprise shows progress over time in meeting the capabilities and closing the gaps reflected in the 2016 DCGS Enterprise Initial Capabilities Document. *FY 2019 to FY 2020 Increase/Decrease Statement:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0305208K *I Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 *I Distributed Common Ground/Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
An increase of +$0.011 from FY2019 to FY 2020 is attributed to an increase in equipment refresh.			
Accomplishments/Planned Programs Subtotals	2.959	2.970	2.981

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. Beginning FY18, DCGS will transition to a cost plus fixed fee and firm fixed price Test, Evaluation and Certification contract (TEC).

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. 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.

 1. Metric: T&E FT will perform a minimum of nine (9) DCGS Enterprise assessments in FY 2018 and ten (10) DCGS Enterprise Assessments in FY 2019 and FY 2020.

 FY18 Target: 9 / Actual 10
 FY19 Target: 10
 FY20 Target: 10

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency															**Date:** March 2019

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208K / *Distributed Common Ground/Surface Systems*	Project (Number/Name) NF1 / *Distributed Common Ground/Surface Systems*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Contracts	MIPR	Various : Various	21.963	1.000	Oct 2017	1.000	Oct 2018	1.000	Oct 2019	-		1.000	Continuing	Continuing	Continuing
Subtotal			21.963	1.000		1.000		1.000		-		1.000	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering & Technical Services 1	C/T&M	Interop : Ft Huachuca	3.763	-		-		-		-		-	0.000	3.763	-
Engineering & Technical Services 2	C/T&M	NGMS : Ft Huachuca	12.927	-		-		-		-		-	0.000	12.927	-
Engineering & Technical Services 3	C/T&M	NGIT : Ft Huachuca	3.612	-		-		-		-		-	0.000	3.612	-
Engineering & Technical Services 4	C/Various	Various : Various	1.843	0.330	May 2018	-		-		-		-	0.000	2.173	-
Engineering & Technical Services 5	C/CPFF	TASC : Andover, MA	9.060	0.827	May 2018	-		-		-		-	0.000	9.887	-
Engineering & Technical Services 6	MIPR	Various : Various	-	0.802	Dec 2017	1.970	Dec 2018	1.981	Dec 2019	-		1.981	Continuing	Continuing	Continuing
Subtotal			31.205	1.959		1.970		1.981		-		1.981	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	53.168	2.959	2.970	2.981	-	2.981	Continuing	Continuing	N/A

Remarks

PE 0305208K: *Distributed Common Ground/Surface System...*
Defense Information Systems Agency
UNCLASSIFIED
Page 5 of 7
R-1 Line #238
Volume 5 - 191

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0305208K *I Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 *I Distributed Common Ground/Surface Systems*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DCGS																												
DCGS T&E IPT																												
Connectivity to Other Testbeds & Test Event Conduct																												
DDT&E Operation and Maintenance Support																												

PE 0305208K: *Distributed Common Ground/Surface System...*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 7

R-1 Line #238

Volume 5 - 192

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0305208K *I Distributed Common Ground/Surface Systems*	**Project (Number/Name)** NF1 *I Distributed Common Ground/Surface Systems*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
DCGS				
DCGS T&E IPT	1	2018	4	2024
Connectivity to Other Testbeds & Test Event Conduct	1	2018	4	2024
DDT&E Operation and Maintenance Support	1	2018	4	2024

PE 0305208K: *Distributed Common Ground/Surface System...*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 7

R-1 Line #238

Volume 5 - 193

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	PE 0708012K *I Logistics Support Activities*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	1.317	1.361	-	1.361	1.406	1.451	1.460	1.488	Continuing	Continuing
LSA: *Logistics Support Activities*	0.000	0.000	1.317	1.361	-	1.361	1.406	1.451	1.460	1.488	Continuing	Continuing

Note
 N/A

A. Mission Description and Budget Item Justification
 Classified

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	1.317	1.361	-	1.361
Current President's Budget	0.000	1.317	1.361	-	1.361
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
Program is classified and exhibit will be provided under a separate cover.

PE 0708012K: *Logistics Support Activities*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 5

R-1 Line #250

Volume 5 - 195

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0708012K / *Logistics Support Activities*				Project (Number/Name) LSA / *Logistics Support Activities*			

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
LSA: *Logistics Support Activities*	0.000	0.000	1.317	1.361	-	1.361	1.406	1.451	1.460	1.488	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 Classified.

A. Mission Description and Budget Item Justification
 Classified.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: LSA	-	1.317	1.361
Description: Classified.			
FY 2019 Plans: Classified.			
FY 2020 Plans: Classified.			
FY 2019 to FY 2020 Increase/Decrease Statement: Classified.			
Accomplishments/Planned Programs Subtotals	-	1.317	1.361

C. Other Program Funding Summary ($ in Millions)
 N/A
Remarks
 Classified.

D. Acquisition Strategy
 Classified.

E. Performance Metrics
 Classified.

PE 0708012K: *Logistics Support Activities*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 5

R-1 Line #250

Volume 5 - 196

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency														**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 7							**R-1 Program Element (Number/Name)** PE 0708012K *I Logistics Support Activities*						**Project (Number/Name)** LSA *I Logistics Support Activities*		

Product Development ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Classified	Various	Classified : Classified	-	-		1.317	Oct 2018	1.361	Oct 2019	-		1.361	Continuing	Continuing	-
		Subtotal	-	-		1.317		1.361		-		1.361	Continuing	Continuing	N/A

	Prior Years	**FY 2018**		**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-		1.317	1.361	-	1.361	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0708012K / *Logistics Support Activities*	**Project (Number/Name)** LSA / *Logistics Support Activities*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Classified																												
Classified					███																							

PE 0708012K: *Logistics Support Activities*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 5

R-1 Line #250

Volume 5 - 198

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0708012K *I Logistics Support Activities*	**Project (Number/Name)** LSA *I Logistics Support Activities*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Classified				
Classified	1	2019	3	2024

PE 0708012K: *Logistics Support Activities*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 5

R-1 Line #250

Volume 5 - 199

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	

Appropriation/Budget Activity
0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0903235K *I Joint Service Provider*

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	0.652	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
JP1: *Joint Service Provider*	-	0.652	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	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, Headquarters Department of the Army (HQDA), Washington Headquarters Services (WHS), Pentagon Force Protection Agency (PFPA), DoD Consolidated Adjudication Facility (DoD CAF), and other JSP-supported 4th Estate users and communities supported within the Pentagon Reservation and other areas in the National Capitol Region (NCR). RDT&E provides for the test, pilot, and development of new integrated business tools to enhance the JSP business processes and improve the delivery of IT services and capabilities. This activity executes JSP's testing environment to allow insertion of commercial off-the-shelf and government-managed software for all supported JSP services to include network transport, storage, compute, defensive cyber operations, Pentagon Installation Processing Node (IPN), and other components of the NCR's core network infrastructure. These efforts also provide mobile classified computing and communications platforms technology test and development for the immediate Office of the Secretary of Defense, enabling secured computing at residence, temporary and mobile locations around the world.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.652	0.000	0.000	-	0.000
Total Adjustments	0.652	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustment	0.652	-	-	-	-

Change Summary Explanation

The increase in FY 2018 in the amount of $0.652 due to funds being executed in the correct PE 0903235K Joint Service Provider (JSP), but under the wrong budget activity (BA) (07 but should be 06). Funds have since been corrected and moved to BA06 for proper execution, but not in time for yearend lock. Please see BA06, PE 0903235K exhibit for further details and current funding profile.

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 1 of 5

R-1 Line #253

Volume 5 - 201

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Information Systems Agency										Date: March 2019	

Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0903235K / Joint Service Provider				Project (Number/Name) JP1 / Joint Service Provider			

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
JP1: Joint Service Provider	-	0.652	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

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 2018	FY 2019	FY 2020
Title: Pentagon/NCR Core Enterprise Services	0.652	-	-
Description: 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.			
Accomplishments/Planned Programs Subtotals	0.652	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 5

R-1 Line #253

Volume 5 - 202

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Information Systems Agency			Date: March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0903235K / *Joint Service Provider*	**Project (Number/Name)** JP1 / *Joint Service Provider*	

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
JSP Technology, Research, Evaluation and Development	SS/CPFF	DITCO : DISA	-	0.652	Feb 2018	-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.652		-		-		-		-	Continuing	Continuing	N/A

			Prior Years	**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals			-	0.652		0.000		-		-		-	Continuing	Continuing	N/A

Remarks

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 3 of 5

R-1 Line #253

Volume 5 - 203

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 0903235K *I Joint Service Provider*	**Project (Number/Name)** JP1 *I Joint Service Provider*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
JSP Technology, Research, Evaluation and Development																												
JSP Technology, Research, Evaluation and Development	██████████████████████████																											

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 4 of 5

R-1 Line #253

Volume 5 - 204

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0903235K / *Joint Service Provider*	**Project (Number/Name)** JP1 / *Joint Service Provider*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JSP Technology, Research, Evaluation and Development				
JSP Technology, Research, Evaluation and Development	2	2018	3	2021

PE 0903235K: *Joint Service Provider*
Defense Information Systems Agency

UNCLASSIFIED
Page 5 of 5

R-1 Line #253

Volume 5 - 205

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Information Systems Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 1203610K *I Teleport Program*							

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	46.010	0.574	0.723	6.158	-	6.158	3.241	1.274	1.287	1.312	Continuing	Continuing
NS01: *Teleport Generation 1/2*	46.010	0.574	0.723	1.158	-	1.158	1.241	1.274	1.287	1.312	Continuing	Continuing
NS03: *SATCOM Gateway*	-	0.000	0.000	5.000	-	5.000	2.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

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

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

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

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

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1203610K *I Teleport Program*	

Phase 3: Mobile User Objective System (MUOS) to Legacy Ultra High Frequency (UHF) systems interoperability will provide interoperability between MUOS users and legacy UHF users by installing MUOS-to-Legacy UHF SATCOM Gateway Component (MLGC) suites of equipment at DoD Teleport sites. MUOS is the next generation DoD UHF SATCOM system that will provide the warfighter with modern worldwide mobile communication services, utilizing the Wideband Code Division Multiple Access waveform for use in the military UHF SATCOM band. MLGC suites will provide critical continuity and interoperability as DoD tactical satellite users transition from legacy waveforms and radios to the Joint Tactical Radio System.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.642	2.323	2.308	-	2.308
Current President's Budget	0.574	0.723	6.158	-	6.158
Total Adjustments	-0.068	-1.600	3.850	-	3.850
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.068	-			
• Adjustment	-	-1.600	3.850	-	3.850

Change Summary Explanation

Decrease of -$0.068 in FY 2018 reflects a transfer of funding to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

Decrease of -$1.600 in FY 2019 is attributed to a reduction in the number of test events for technology refresh and technology insertions supporting commercial off the shelf (baseband equipment) and software.

Increase of +$3.850 in FY 2020 is due to increase of +$5.000 for testing to field a MUOS terminal provisioning tool and data controller. This is offset by a decrease of -$1.150 for a reduced number of test events for technology refresh and technology insertions supporting commercial off the shelf (baseband equipment) and software.

PE 1203610K: *Teleport Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 2 of 12

R-1 Line #266

| **Volume 5 - 208** |

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency										**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 7				**R-1 Program Element (Number/Name)** PE 1203610K *I Teleport Program*				**Project (Number/Name)** NS01 *I Teleport Generation 1/2*			
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
NS01: *Teleport Generation 1/2*	46.010	0.574	0.723	1.158	-	1.158	1.241	1.274	1.287	1.312	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Teleport program will implement an integrated test approach that will combine the objectives from multiple testing disciplines (e.g., developmental test, operational test, interoperability, and information assurance) throughout the testing lifecycle to support needed system evaluations. The Teleport program executes its own test events to achieve this integrated approach, but will partner with each phase's respective program office generated test activities to leverage the data needed to satisfy Teleport program test objectives. An approach summary for Teleport Gen 1/2 follows:

Generation 1/2 Technology Refresh/Technology Insertion: Funding will be used to maintain the Joint Interoperability Certification of the DoD Teleport System as the system is upgraded and refreshed with new components.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: Teleport Program	0.574	0.723	1.158
Description: N/A			
FY 2019 Plans: Funding will be used to maintain the Joint Interoperability Certification of the DoD Teleport System as the system is upgraded with new components.			
FY 2020 Plans: Funding will be used to maintain the Joint Interoperability Certification of the DoD Teleport System as the system is upgraded with new components.			
FY 2019 to FY 2020 Increase/Decrease Statement: Increase of +$0.435 from FY 2019 to FY 2020 is attributed to an increased number of test events for MUOS-to-Legacy UHF SATCOM Gateway Component (MLGC) system Allied Support.			
Accomplishments/Planned Programs Subtotals	0.574	0.723	1.158

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/ PE1203610K: *O&M, DW*	2.573	3.722	2.887	-	2.887	2.884	2.898	2.912	2.924	Continuing	Continuing

PE 1203610K: *Teleport Program*
Defense Information Systems Agency
UNCLASSIFIED
Page 3 of 12
R-1 Line #266
Volume 5 - 209

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 7	**R-1 Program Element (Number/Name)** PE 1203610K **/** *Teleport Program*	**Project (Number/Name)** NS01 **/** *Teleport Generation 1/2*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• Procurement, DW/	14.154	21.112	22.324	-	22.324	27.405	32.564	30.629	31.203	Continuing	Continuing
PE1203610K: *Procurement, DW*											

Remarks

D. Acquisition Strategy

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

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 2018, FY 2019 and FY 2020.

Generation 1/2 Metric: Percentage of system changes resulting in interoperability certification

FY 2018 Target: 100% / Actual 100%

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 1203610K *I Teleport Program*	**Project (Number/Name)** NS01 *I Teleport Generation 1/2*

 FY 2019 Target: 100%
 FY 2020 Target: 100%

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1203610K / *Teleport Program*	**Project (Number/Name)** NS01 / *Teleport Generation 1/2*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Technical Support (Tech Refresh)	MIPR	CERDEC : APG	0.000	-		0.200	Oct 2018	1.158	Oct 2019	-		1.158	Continuing	Continuing	Continuing
SATCOM, NATO, DISN, and Tactical Radio Tech Support Svcs	MIPR	ANSER : VARIOUS	-	0.125	Feb 2018	-		-		-		-	0.000	0.125	0.125
Subtotal			0.000	0.125		0.200		1.158		-		1.158	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing Support Services (Tech Refesh)	MIPR	JITC : Ft. Huachuca	46.010	0.449	Feb 2018	0.523	Feb 2019	-		-		-	0.972	47.954	-
Subtotal			46.010	0.449		0.523		-		-		-	0.972	47.954	N/A

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	46.010	0.574		0.723		1.158		-		1.158	Continuing	Continuing	N/A

Remarks

PE 1203610K: *Teleport Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 6 of 12

R-1 Line #266

Volume 5 - 212

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency			**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 7		**R-1 Program Element (Number/Name)** PE 1203610K **/** *Teleport Program*	**Project (Number/Name)** NS01 **/** *Teleport Generation 1/2*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Teleport Program																												
Integrated testing that supported Teleport system evaluation and Technology Refresh/ Technology Insertion								████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████			

PE 1203610K: *Teleport Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 7 of 12

R-1 Line #266

Volume 5 - 213

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 **/** 7	**R-1 Program Element (Number/Name)** PE 1203610K **/** *Teleport Program*	**Project (Number/Name)** NS01 **/** *Teleport Generation 1/2*

Schedule Details

Events by Sub Project	**Start**		**End**	
	Quarter	**Year**	**Quarter**	**Year**
Teleport Program				
Integrated testing that supported Teleport system evaluation and Technology Refresh/ Technology Insertion	2	2019	4	2024

PE 1203610K: *Teleport Program*
Defense Information Systems Agency

UNCLASSIFIED
Page 8 of 12

R-1 Line #266

Volume 5 - 214

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Information Systems Agency										**Date:** March 2019	

Appropriation/Budget Activity 0400 / 7				**R-1 Program Element (Number/Name)** PE 1203610K / *Teleport Program*				**Project (Number/Name)** NS03 / *SATCOM Gateway*			

COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
NS03: *SATCOM Gateway*	-	0.000	0.000	5.000	-	5.000	2.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The SATCOM Gateway is an enterprise system that will adhere to the Joint Information Environment (JIE) architecture, and support all DoD satellite communications requirements, to include Strategic (Presidential, SECDEF, SECSTATE, Chairman Joint Chiefs of Staff, Milestone Decision Authority (MDA)) and Tactical (Combatant Commanders/Services/Agencies (CC/S/A)) users over satellite trunks through the DoD Information Network (DODIN).

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2018**	**FY 2019**	**FY 2020**
Title: SATCOM Gateway	-	-	5.000
FY 2020 Plans: Funding will be used to engineer, develop, test, and evaluate a MUOS terminal planning tool and data controller to support SATCOM operations. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** Increase of +$5.000 from FY 2019 to FY 2020 is attributed to a SATCOM operational requirement to develop and test a MUOS terminal planning tool and data controller.			
Accomplishments/Planned Programs Subtotals	-	-	5.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• O&M, DW/ PE1203610K: *O&M, DW*	10.703	6.436	7.651	0.000	7.651	7.999	7.956	7.174	7.220	Continuing	Continuing
• Procurement, DW/ PE1203610K: *Procurement, DW*	22.626	11.405	1.633	0.000	1.633	2.037	5.447	1.771	1.804	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

SATCOM Gateway Metric: Develop MUOS terminal provisioning tool and data controller
FY 2020 Target: 1 Planned

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2020 Defense Information Systems Agency														**Date:** March 2019		
Appropriation/Budget Activity 0400 **/** 7							**R-1 Program Element (Number/Name)** PE 1203610K **/** *Teleport Program*							**Project (Number/Name)** NS03 **/** *SATCOM Gateway*		

Support ($ in Millions)				**FY 2018**		**FY 2019**		**FY 2020 Base**		**FY 2020 OCO**		**FY 2020 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Engineering Technical Support (MUOS tool)	Various	TBD : TBD	-	-		-		5.000	Oct 2019	-		5.000	Continuing	Continuing	-
Subtotal			-	-		-		5.000		-		5.000	Continuing	Continuing	N/A

	Prior Years	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-	0.000	5.000	-	5.000	Continuing	Continuing	N/A

Remarks

PE 1203610K: *Teleport Program*
Defense Information Systems Agency

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Information Systems Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 7	**R-1 Program Element (Number/Name)** PE 1203610K *I Teleport Program*	**Project (Number/Name)** NS03 *I SATCOM Gateway*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
SATCOM Gateway																												
Engineering, development, testing, and evaluation of a MUOS terminal planning tool and data controller supporting SATCOM operations.										███████████████																		

PE 1203610K: *Teleport Program*
Defense Information Systems Agency
UNCLASSIFIED
Page 11 of 12
R-1 Line #266
Volume 5 - 217

Exhibit R-4A, **RDT&E Schedule Details:** PB 2020 Defense Information Systems Agency			**Date:** March 2019	
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1203610K / *Teleport Program*		**Project (Number/Name)** NS03 / *SATCOM Gateway*	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SATCOM Gateway				
Engineering, development, testing, and evaluation of a MUOS terminal planning tool and data controller supporting SATCOM operations.	2	2020	4	2021