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

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

A. Mission Description and Budget Item Justification

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

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

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

Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Defense Information Systems Agency	Date: February 2016
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Change Summary Explanation

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

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

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

A. Mission Description and Budget Item Justification

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

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

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

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

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

C. Other Program Funding Summary ($ in Millions)

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

Remarks

D. Acquisition Strategy

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

E. Performance Metrics

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

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

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

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

Support ($ in Millions)

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

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

Remarks

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

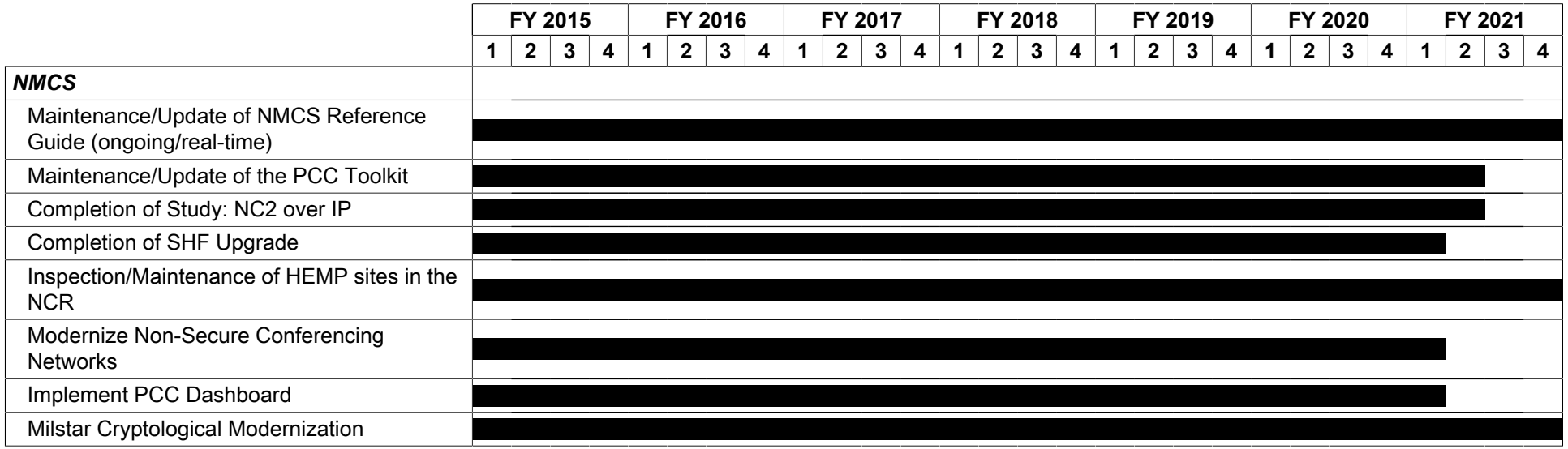

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Defense Information Systems Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0302016K / *National Military Command System-Wide Support*	**Project (Number/Name)** S32 / *NMCS Command Center Engineering*

Schedule Details

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