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.

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.

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)** T64 / *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

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

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

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.

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 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

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																												

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

Events by Sub Project	Start		End	
	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