Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force												Date: May 2021
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 6: *RDT&E Management Support*					R-1 Program Element (Number/Name) PE 0303255F / *Command, Control, Communication, and Computers (C4) - STRATCOM*							
COST ($ in Millions)	**Prior Years**	**FY 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	21.525	25.340	0.000	25.340	-	-	-	-	-	-
664620: *NC3 Enterprise Center*	-	0.000	21.525	25.340	0.000	25.340	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY22, $1M for the Defense Critical Infrastructure Program (DCIP) was realigned from PE 1201921F (Service Support to STRATCOM-Space Activities), to PE 0303255F-C4, Project 664620, program code BEH000 - Critical Infrastructure Protection, to align funding under the correct Major Force Program 03 Intelligence & Communications. In October 2014 memorandum of agreement between USSTRATCOM and Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance transferred budget authority for DCIP funding to USSTRATCOM beginning in FY16; not a new start.

A. Mission Description and Budget Item Justification

The NEC, tasked by the Secretary of Defense oversees and monitors operations and security of the enterprise and develops tools to assist in monitoring the readiness of the NC3 architecture and capture the operational risks as adversaries develop the ability to disrupt our capabilities from multiple threat vectors. This effort will fund systems engineering and assessment activities previously accomplished by DISA in support of the NC3 Enterprise. The NEC will capture and integrate process and system data to assess operational risk, characterize multi-domain threats, and explore operational trade space associated with next generation NC3 architectures. The NEC will work with the services to explore new technologies and develop innovative solutions in a virtual environment, and capture metrics that identify system problems and readiness issues before they impact operations. The NEC will also develop digital engineering capabilities to help support governance responsibilities of NC3. The USSTRATCOM DCIP program is a risk management program that seeks to ensure the availability of networked assets critical to USSTRATCOM and other DoD missions. Critical infrastructure assets can include installations, facilities, antennas, vehicles, computing systems, and communications links. DCIP is directed by the Office of the Assistant Secretary of Defense (Homeland Defense & Americas' Security Affairs) [OASD (HD&ASA)]. DCIP manages the identification, prioritization, assessment, and assurance of critical infrastructure as a comprehensive program that includes the development of adaptive plans and procedures to mitigate risk, restore capability in the event of loss or degradation, support incident management, and protect defense critical infrastructure. These programs are in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

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B. Program Change Summary ($ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	0.000	24.564	24.717	0.000	24.717
Current President's Budget	0.000	21.525	25.340	0.000	25.340
Total Adjustments	0.000	-3.039	0.623	0.000	0.623
• Congressional General Reductions	0.000	-0.039			
• Congressional Directed Reductions	0.000	-3.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.623	0.000	0.623

Change Summary Explanation

FY2021 Congressional Reduction 3.0M

C. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
Title: NC3 Systems Engineering and Assessments	0.000	12.133	12.137
Description: Maintain NC3 Systems Engineering and Assessment Capability ***FY 2021 Plans:*** - Continue oversight and configuration control of the NLCC functional baseline - Continue to identify NLCC capability gaps - Develop engineering courses of action to close those gaps - Continue to recommend plans for future NLCC capabilities - Perform end-to-end testing of fielded capabilities - Perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency - Continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development - Demonstrate ability to capture the communication flows in the NC3 system and allow data engineers the ability to identify and work through ideas to improve the reliability and availability of NC3 ***FY 2022 Plans:*** - Continue oversight and configuration control of the NLCC functional baseline - Continue to identify NLCC capability gaps			

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
- Develop engineering courses of action to close those gaps - Continue to recommend plans for future NLCC capabilities - Perform end-to-end testing of fielded capabilities - Perform operational assessments of current capabilities to provide quantitative measures of ongoing system performance and operational efficiency - Continue to develop the NLCC Reference Architecture, its associated NLCC Roadmap, and the technical architecture patterns that will guide future solution architecture development - Demonstrate ability to capture the communication flows in the NC3 system and allow data engineers the ability to identify and work through ideas to improve the reliability and availability of NC3 ***FY 2021 to FY 2022 Increase/Decrease Statement:*** FY21 to FY22 increase due to inflation adjustments.			
Title: Modeling and Simulation and Enterprise Data Environment Development ***Description:*** Develop or modify modeling and simulation capability and field the NC3 Enterprise Data Environment ***FY 2021 Plans:*** - Purchase hardware and software to establish the Enterprise Data Environment - Work with the services to modify or develop models or simulations that allow the ability to evaluate NC3 elements' performance, especially with respect to threats - Work with the services to configure and connect models and simulations to allow a seamless environment within which the data analysts will work to clean the data, manage it, and provide visualizations - Demonstrate the initial mission thread, force direction messages between the airborne command nodes and the submarines - Expand Global Data Integration exposure to Missile Warning and Missile Defense Programs of Record providing an improved operational picture to address SECDEF taskings - Work with the services to add models/simulations that demonstrate a sensor-to-shooter analytical capability ***FY 2022 Plans:*** - Continue to purchase hardware and software to establish the Enterprise Data Environment - Continue to work with the services to modify or develop models or simulations that allow the ability to evaluate NC3 elements' performance, especially with respect to threats - Continue to work with the services to configure and connect models and simulations to allow a seamless environment within which the data analysts will work to clean the data, manage it, and provide visualizations - Further demonstrate and refine the initial mission thread, force direction messages between the airborne command nodes and the submarines	0.000	9.392	12.199

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2020	FY 2021	FY 2022
- Further expand Global Data Integration exposure to Missile Warning and Missile Defense Programs of Record providing an improved operational picture to address SECDEF taskings - Add models/simulations that demonstrate a sensor-to-shooter analytical capability ***FY 2021 to FY 2022 Increase/Decrease Statement:*** FY21 to FY22 increase due to realignment of funding from PE 1201921F (Service Support to STRATCOM-Space Activities), to align funding under the correct Major Force Program 03 Intelligence & Communications; not a new start.			
Title: Mission Assurance Defense Critical Infrastructure Program (DCIP) ***Description:*** Supports 1) systems engineering analsis for the decomposition of mission systems and assets, and supporting networks and infrastructure that execute USSTRATCOM missions, 2) research, studies, analysis, and operational assessment of mission system capabilities, methodologies, and tactics to identify critical assets and dependency relationships, and 3) evaluation of mission risk through research, studies,analysis and assessment of threats and hazards paired with exploitable vulnerabilities. ***FY 2021 Plans:*** Provide analysis, studies and research of critical infrastructure assets and dependencies supporting all USSTRATCOM assigned missions, to include focusing efforts of future critical infrastructure vulnerability assessments and researching the various sources to perform threats and hazard assessments. Develop link-node display of systems connecting tasked missions and operational plans to mission essential tasks and critical infrastructure assets. Identifies vulnerabilities, and participate in risk management process for remediation and mitigation. The Defense Critical Infrastructure Program is an on-going program, cost to complete is N/A. ***FY 2022 Plans:*** Cotinue to provide analysis, studies and research of critical infrastructure assets and dependencies supporting all USSTRATCOM assigned missions, to include focusing efforts of future critical infrastructure vulnerability assessments and researching the various sources to perform threats and hazard assessments. Develop link-node display of systems connecting tasked missions and operational plans to mission essential tasks and critical infrastructure assets. Identifies vulnerabilities, and participate in risk management process for remediation and mitigation. The Defense Critical Infrastructure Program is an on-going program, cost to complete is N/A. ***FY 2021 to FY 2022 Increase/Decrease Statement:*** FY22 increase is due to the realignment of 1M in DCIP funding; not a new start.	-	0.000	1.004
Accomplishments/Planned Programs Subtotals	0.000	21.525	25.340

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D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

The Digital Engineering effort is led by the NC3 Enterprise Center (NEC) under USSTRATCOM and will utilize existing contracts to purchase equipment and software, in particular, requesting and funding additional capability development from on-going Service software efforts to model NC3 activities.

Projects funded through DCIP will be awarded using competitive contracts to the maximum extent possible.