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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Air Force **Date:** February 2020

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0303255F <i>I Command, Control, Communication, and Computers (C4) - STRATCOM</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	24.564	0.000	24.564	24.717	12.766	13.003	13.125	Continuing	Continuing
664620: <i>NC3 Enterprise Center</i>	-	0.000	0.000	24.564	0.000	24.564	24.717	12.766	13.003	13.125	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 6, PE 0303255F, project 664620, NC3 Systems Engineering and Assessments, is a new start.
 This program, BA 6, PE 0303255F, project 664620, Modeling and Simulation and Enterprise Data Environment Development, is a new start.

In FY21, PE 0303131K, Strategic C3 Support (T70) efforts were transferred from Defense Information Systems Agency (DISA) to PE 0303255F, Command, Control, Communication, and Computers (C4), Project 664620, NC3 Enterprise Center, in order to realign funding in accordance with SecDef approved NC3 governance improvement plan.

A. Mission Description and Budget Item Justification

The NC3 Enterprise Center (NEC) was established to oversee the NC3 Enterprise and associated modernization efforts. Tasked by the Secretary of Defense, the NEC will oversee and monitor operations and security of the enterprise and develop 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.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NC3 enterprise capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F

This program is 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	24.564	0.000	24.564
Total Adjustments	0.000	0.000	24.564	0.000	24.564
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• 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	24.564	0.000	24.564

Change Summary Explanation

FY2021 - this is a new effort in FY21.

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

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: NC3 Systems Engineering and Assessments	-	0.000	12.133	0.000	12.133
Description: Maintain NC3 Systems Engineering and Assessment Capability					
FY 2020 Plans: N/A; FY20 work executed from DISA PE 0303131K					
FY 2021 Base 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					

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
<p>- 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.</p> <p>FY 2021 OCO Plans: N/A</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: FY20 work executed from DISA PE 0303131K</p>					
<p>Title: Modeling and Simulation and Enterprise Data Environment Development</p> <p>Description: Develop or modify modeling and simulation capability and field the NC3 Enterprise Data Environment</p> <p>FY 2020 Plans: N/A</p> <p>FY 2021 Base Plans:</p> <ul style="list-style-type: none"> - 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 evaluation 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 and improved operational picture to address SECDEF tasking - Work with the services to add models/simulations that demonstrate a sensor-to-shooter analytical capability <p>FY 2021 OCO Plans: N/A</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: FY21 New Start</p>	-	0.000	12.431	0.000	12.431
Accomplishments/Planned Programs Subtotals	-	0.000	24.564	0.000	24.564

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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 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.		