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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Office of the Secretary Of Defense **Date:** April 2022

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605772D8Z I <i>Nuclear Command Control and Communications (NC3)</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	0.000	3.547	3.969	3.758	-	3.758	3.853	3.808	3.795	3.776	Continuing	Continuing
815: <i>Nuclear Command, Control and Communications (NC3)</i>	0.000	3.547	3.969	3.758	-	3.758	3.853	3.808	3.795	3.776	Continuing	Continuing

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to Defend the Homeland, Provide Nuclear Deterrence, and Build Sustainable and Long-Term Advantage.

This program supports the Under Secretary of Defense for Acquisition and Sustainment roles as Principal Staff Assistant (PSA) for NC3 and NC3 Capability Portfolio Manager (CPM) as directed by the Secretary of Defense in the NC3 Governance Improvement (NGI) Implementation Plan. The NC3 Portfolio consists of ~200 systems, platforms, networks, and applications. The goals of the CPM are to 1) assess NC3 modernization programs and their integration, synchronization, and contribution to the NC3 enterprise, 2) monitor the readiness of operational NC3 systems, 3) identify performance gaps and make recommendations on technology upgrades and prototyping to enable the future capabilities to outpace the threat, and 4) support data-driven portfolio management by developing the necessary tools and processes to assess and manage integrated programmatic and technical risks. These tools include software, analytical expertise, and information storage and retrieval systems to support the continuing development of CPM for managing the complex NC3 enterprise. These efforts will simultaneously support the Commander, U.S. Strategic Command (USSTRATCOM) as NC3 Enterprise Lead; NC3 Enterprise Center (NEC); systems engineering and architecture development entities; the Under Secretary of Defense (USD) for Research and Engineering (R&E), the Joint Staff, and the Services. This program supports the capability portfolio-based approach (DoD Directive 7045.02, "Capability Portfolio Management").

This program funds development of new tools, technical assessments, and planning for the CPM to manage the NC3 enterprise. This includes:

- 1) developing and deploying software tools for improving NC3 enterprise-level management and programmatic and technical risk assessments;
- 2) supporting the office of primary responsibility for NC3 enterprise capability portfolio management (to include assessing current capability, complying with statutory mandates, and conducting NC3-related studies, analyses, and policy updates);
- 3) assessing DoD Component plans, programs, and budgets for adequacy and execution (including courses of action development and recommendations);
- 4) identifying, prototyping, evaluating, and recommending new technology for inclusion in the NC3 system; and
- 5) developing NC3 corrective action and risk mitigation plans to support the NC3 CPM investment recommendations to senior DoD leadership.

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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	3.683	3.991	0.000	-	0.000
Current President's Budget	3.547	3.969	3.758	-	3.758
Total Adjustments	-0.136	-0.022	3.758	-	3.758
• Congressional General Reductions	-	-0.022			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.136	-			
• Adjustments to Budget Year	-	-	3.758	-	3.758

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense										Date: April 2022		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605772D8Z / Nuclear Command Control and Communications (NC3)				Project (Number/Name) 815 / Nuclear Command, Control and Communications (NC3)			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
815: Nuclear Command, Control and Communications (NC3)	0.000	3.547	3.969	3.758	-	3.758	3.853	3.808	3.795	3.776	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program supports development and operation of analytical tools to evaluate authoritative data (cost, schedule, performance, risk) on NC3 Portfolio programs to maximize portfolio alignment to strategic priorities and capabilities. It will create integrated development and delivery schedules for NC3 programs. These tools will forecast system/capability degradation as well as plans for capability replacement, improvement, or replacement in the context of the larger NC3 enterprise. It also provides the technical expertise to support risk management analysis (with an emphasis on system design, development and acquisition) of the NC3 enterprise and will develop strategies for synchronizing NC3 preplanned improvements. It will support the timely exchange of program and capability status information between elements of the NC3 enterprise, the OSD staff, and the combatant commands with a goal of increasing the use of electronic means to provide current and accurate information on key elements of the NC3 enterprise.

The effort will develop robust, integrated capability plans and schedules for NC3 capabilities to clarify system dependencies and identify disconnects. It will also support cross-department collaboration for development of enterprise-wide approaches for capability management. This includes: (1) vertical and horizontal integration activities within the Department and with the interagency where appropriate; (2) a coordinated portfolio-based approach to planning, programming, budgeting and execution; (3) reform efforts at the legislative, governance, policy, management and execution levels; 4) protection of information and technology that support or enables technology-based capability development for the NC3 warfighting domain and 5) supports the identification, evaluation, and incorporation of promising technology for inclusion in the NC3 system.

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

	FY 2021	FY 2022	FY 2023
Title: Nuclear Command, Control and Communications (NC3)	3.547	3.969	3.758
Description: FY 2021 Accomplishments: Supported NC3 governance processes to include semiannual Deputy Secretary of Defense chaired NC3 Enterprise Reviews, Secretary of Defense (SecDef) Weekly Priority Review, and multiple Systems Engineering and Authorities Board with detailed programmatic cost, schedule, and performance analysis for senior executive decisions on resource allocations and strategic direction. Established process and conducted quarterly analysis of 36 NC3 Portfolio modernization programs and identified programmatic risk (cost, schedule, and performance) challenges and developed strategies to correct deficiencies and maintain critical path.			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>Conducted root cause analysis of schedule slippages of NC3 Portfolio development programs in response to NC3 Enterprise Lead tasking aimed at reducing operational risk by allowing timely retiring of vintage systems with more resilient modernization programs.</p> <p>FY 2022 Plans: Support the NC3 governance process by providing analysis and recommendations to the NC3 CPM for presentation to senior leadership bodies (NC3 Enterprise Review, Deputy's Management Action Group, SecDef Nuclear Transition Review, etc.).</p> <p>Support programmatic (cost, schedule, and performance) analysis on the NC3 portfolio of programs, systems, and facilities. Work collaboratively with the NC3 Enterprise Center (NEC), Services, and DoD Agencies to develop strategies to correct deficiencies and speed modernization.</p> <p>Evaluate, make recommendations, and support NC3 CPM interaction with Congress.</p> <p>Work with the Under Secretary of Defense Research and Engineering to develop Science and Technology Strategic Plans to develop next generation NC3 capabilities and to ensure a viable path exists to transition technology to new or existing acquisition programs.</p> <p>Review Commander, U.S. Strategic Command's NC3 Capability Planning Guidance and support the NC3 CPM in tracking Component compliance.</p> <p>Continue development of analytic tools, automated processes, and dashboards that allow data access and monitoring of the NC3 enterprise to identify programmatic issues early and implement corrective action.</p> <p>FY 2023 Plans: Conduct analysis and support the semiannual NC3 Enterprise Reviews with the Deputy Secretary of Defense (DepSecDef) and Vice Chairman of the Joint Chiefs of Staff , SecDef Nuclear Transition Review, the Systems Engineering and Authorities (SEA) Board, Integrated Acquisition Portfolio Reviews, and other Senior Leader NC3 meetings.</p> <p>Support programmatic (cost, schedule, and performance) analysis on the NC3 portfolio of programs, systems, and facilities. Work collaboratively with the NC3 Enterprise Center (NEC), Services, and DoD Agencies to develop strategies to correct deficiencies and speed modernization.</p>				

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
Coordinate on the USSTRATCOM FY 2025 to FY 2029 NC3 Capability Planning Guidance (CPG), draft program review recommendations on NC3 high risk programs, and initiate POM23 issue artifacts in support of program and budget review efforts to align NC3 investment.				
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease from FY 2022 to FY 2023 is the result of defense wide leadership reductions.				
Accomplishments/Planned Programs Subtotals		3.547	3.969	3.758
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
Utilize existing fixed-price and cost-plus contracts (where appropriate) to continue implementation of NC3 Capability Portfolio Management, provide technical expertise for NC3 system evaluation and strategic planning, and development of NC3 analytical tools.				

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Nuclear Command, Control and Communications (NC3)</i>				
Software Support Contract Awards	2	2021	4	2022
Systems Engineering & Technical Support Contract Awards	2	2021	4	2022
OUSD(A&S) Capability Portfolio Management	1	2021	4	2021