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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Office of the Secretary Of Defense **Date:** May 2021

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| <b>Appropriation/Budget Activity</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z I <i>Nuclear Command, Control and Communications (NC3)</i> |
|--|--|

| 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       | 0.000   | 3.683   | 3.991        | -           | 3.991         | -       | -       | -       | -       | Continuing       | Continuing |
| 815: <i>Nuclear Command, Control and Communications (NC3)</i> | 0.000       | 0.000   | 3.683   | 3.991        | -           | 3.991         | -       | -       | -       | -       | Continuing       | Continuing |

**A. Mission Description and Budget Item Justification**

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>Appropriation/Budget Activity</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z I <i>Nuclear Command, Control and Communications (NC3)</i> |
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| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2020</b> | <b>FY 2021</b> | <b>FY 2022 Base</b> | <b>FY 2022 OCO</b> | <b>FY 2022 Total</b> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 0.000          | 3.685          | 4.068               | -                  | 4.068                |
| Current President's Budget                        | 0.000          | 3.683          | 3.991               | -                  | 3.991                |
| Total Adjustments                                 | 0.000          | -0.002         | -0.077              | -                  | -0.077               |
| • Congressional General Reductions                | -              | -0.002         |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -              | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -              | -              |                     |                    |                      |
| • Program Adjustments                             | -              | -              | -0.077              | -                  | -0.077               |

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|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|---|-----------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Office of the Secretary Of Defense |                    |                |                |                     |   |                      |                |                |   | <b>Date:</b> May 2021 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>0400 / 5   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z / Nuclear Command, Control and Communications (NC3) |                      |                |                | <b>Project (Number/Name)</b><br>815 / Nuclear Command, Control and Communications (NC3) |                       |                         |                   |
| <b>COST (\$ in Millions)</b>   | <b>Prior Years</b> | <b>FY 2020</b> | <b>FY 2021</b> | <b>FY 2022 Base</b> | <b>FY 2022 OCO</b>  | <b>FY 2022 Total</b> | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025</b>  | <b>FY 2026</b>        | <b>Cost To Complete</b> | <b>Total Cost</b> |
| 815: Nuclear Command, Control and Communications (NC3)   | 0.000              | 0.000          | 3.683          | 3.991               | -   | 3.991                | -              | -              | -   | -                     | 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)**

|   | <b>FY 2020</b> | <b>FY 2021</b> | <b>FY 2022</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Nuclear Command, Control and Communications (NC3)   | -              | 3.683          | 3.991          |
| <b>FY 2021 Plans:</b><br>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 Weekly Priorities Review, etc.).                     |                |                |                |
| 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. |                |                |                |
| Evaluate, make recommendations, and support NC3 CPM interaction with Congress.  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Office of the Secretary Of Defense  |   | <b>Date:</b> May 2021   |                |                |
| <b>Appropriation/Budget Activity</b><br>0400 / 5  | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z / Nuclear Command, Control and Communications (NC3) | <b>Project (Number/Name)</b><br>815 / Nuclear Command, Control and Communications (NC3) |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>   |   | <b>FY 2020</b>  | <b>FY 2021</b> | <b>FY 2022</b> |
| <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><b>FY 2022 Plans:</b><br/>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 Weekly Priorities 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><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b><br/>Increase from FY 2021 to FY 2022 is to support the development and operation of analytical tools to evaluate authoritative data (cost, schedule, performance, risk) on NC3 Portfolio programs.</p> |   |   |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>   |   | -   | 3.683          | 3.991          |

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**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-4, RDT&E Schedule Profile:** PB 2022 Office of the Secretary Of Defense **Date:** May 2021

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| <b>Appropriation/Budget Activity</b><br>0400 / 5 | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z / Nuclear Command, Control and Communications (NC3) | <b>Project (Number/Name)</b><br>815 / Nuclear Command, Control and Communications (NC3) |
|--|---|---|

| FY 2020 |   |   |   | FY 2021 |   |   |   | FY 2022 |   |   |   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   |
|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| 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 |

|   |                      |
|---|----------------------|
| <b><i>Nuclear Command, Control and Communications (NC3)</i></b> |                      |
| Software Support Contract Awards                                | ████████████████████ |
| Systems Engineering & Technical Support Contract Awards         | ████████████████████ |
| OUSD(A&S) Capability Portfolio Management                       | ████████████████     |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Office of the Secretary Of Defense |  | <b>Date:</b> May 2021  |
| <b>Appropriation/Budget Activity</b><br>0400 / 5  | <b>R-1 Program Element (Number/Name)</b><br>PE 0605772D8Z / <i>Nuclear Command, Control and Communications (NC3)</i> | <b>Project (Number/Name)</b><br>815 / <i>Nuclear Command, Control and Communications (NC3)</i> |

Schedule Details

| Events by Sub Project   | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| <b><i>Nuclear Command, Control and Communications (NC3)</i></b> |         |      |         |      |
| 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 |