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**Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army** **Date:** March 2023

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| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> |
|---|--|

| COST (\$ in Millions)                                      | Prior Years | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total | FY 2025 | FY 2026 | FY 2027 | FY 2028 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element                                      | -           | 33.879  | 36.966  | 40.915       | -           | 40.915        | 42.883  | 45.298  | 44.690  | 44.102  | Continuing       | Continuing |
| BT2: <i>Command Post Mobility/Survivability</i>            | -           | 5.581   | 8.729   | 8.581        | -           | 8.581         | 8.588   | 8.599   | 8.690   | 8.787   | Continuing       | Continuing |
| BT3: <i>Common Operating Environment (COE)</i>             | -           | 7.708   | 7.335   | 7.215        | -           | 7.215         | 7.232   | 7.241   | 7.318   | 7.400   | Continuing       | Continuing |
| BT5: <i>Integrated Tactical Network/Enterprise Network</i> | -           | 20.590  | 20.902  | 25.119       | -           | 25.119        | 27.063  | 29.458  | 28.682  | 27.915  | Continuing       | Continuing |

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

This funding line is directly aligned to the Army Network Modernization Priority. Unified Network Transport is directly aligned to the Army Network Modernization Strategy Line of Effort 1 (LOE 1) Unified Network; LOE 2, Common Operating Environment (COE), LOE 3, Interoperability; and LOE 4, Command Post Mobility and Survivability. These efforts support advanced component development activities that are aligned to the Army's Tactical Network Capability Set development and fielding plans.

The Program Executive Office Command, Control, Communications-Tactical (PEO C3T) is responsible for prioritizing, programming, managing and executing these projects and ensuring these funds are prioritized to support the Army's Network Modernization priorities and prototyping. The Network Cross-Functional Team (N-CFT) and PEO C3T prioritize technology demonstrations, focused evaluations, and expert analyses to inform future requirements, mature technologies, and deliver new capabilities. Efforts funded from these projects will inform technology transitions, research and development, and user assessments, and then rapidly transition to appropriate Programs of Record or be established as a new program.

Unified Network Transport provides the ground domain network connectivity of Joint All Domain Command and Control (JADC2) and enables Unified Action Partner interoperability through integration with the Mission Partner Environment (MPE). Interoperability is the ability to routinely act together coherently, effectively and efficiently to achieve tactical, operational, and strategic objectives. Interoperability between disparate forces allows coalitions to produce greater combat power than the sum of their parts by leveraging relative strengths while mitigating relative weaknesses.

FY 2024 funds will support identification, maturation, demonstration, and evaluation of Technology Readiness Level (TRL) 6+ systems and subsystem components including, but not limited to, resilient Line of Site (LOS) and beyond Line of Sight (BLOS) communications, information management systems, cyber electromagnetic activities (CEMA) situational understanding and operations, intelligence fusion, cloud technologies, virtual augmentation, artificial intelligence/machine learning (AI/ML), and data convergence and analytics in the Common Operating Environment to inform the Integrated Tactical Network/Enterprise Network and Enabling Functions, Computing Environments, Interoperability and Command Posts. Successful solutions identified through evaluation in a high fidelity and realistic operating environment will be transitioned to Programs of Record for integration and fielding. Funds will also support integration with solutions identified in the other Modernization CFT efforts to ensure network dependencies are addressed.

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2024 Army | <b>Date:</b> March 2023 |
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| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> |
|---|--|

| <b>B. Program Change Summary (\$ in Millions)</b> | <b><u>FY 2022</u></b> | <b><u>FY 2023</u></b> | <b><u>FY 2024 Base</u></b> | <b><u>FY 2024 OCO</u></b> | <b><u>FY 2024 Total</u></b> |
|---|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| Previous President's Budget                       | 35.172                | 36.966                | 37.123                     | -                         | 37.123                      |
| Current President's Budget                        | 33.879                | 36.966                | 40.915                     | -                         | 40.915                      |
| Total Adjustments                                 | -1.293                | 0.000                 | 3.792                      | -                         | 3.792                       |
| • Congressional General Reductions                | -                     | -                     |                            |                           |                             |
| • Congressional Directed Reductions               | -                     | -                     |                            |                           |                             |
| • Congressional Rescissions                       | -                     | -                     |                            |                           |                             |
| • Congressional Adds                              | -                     | -                     |                            |                           |                             |
| • Congressional Directed Transfers                | -                     | -                     |                            |                           |                             |
| • Reprogrammings                                  | -1.293                | -                     |                            |                           |                             |
| • SBIR/STTR Transfer                              | -                     | -                     |                            |                           |                             |
| • Adjustments to Budget Years                     | -                     | -                     | 3.792                      | -                         | 3.792                       |

**Change Summary Explanation**

Current President's Budget increased due to additional FY 2024 requirements aligned to Army Network Modernization Strategy Line of Effort 1 (LOE 1) Unified Network.

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|--|--------------------|----------------|----------------|---------------------|--|----------------------|----------------|----------------|--|-------------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army |                    |                |                |                     |  |                      |                |                |  | <b>Date:</b> March 2023 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> |                      |                |                | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024 Base</b> | <b>FY 2024 OCO</b>   | <b>FY 2024 Total</b> | <b>FY 2025</b> | <b>FY 2026</b> | <b>FY 2027</b>   | <b>FY 2028</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| BT2: <i>Command Post Mobility/Survivability</i>                    | -                  | 5.581          | 8.729          | 8.581               | -  | 8.581                | 8.588          | 8.599          | 8.690  | 8.787                   | Continuing              | Continuing        |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -  | -                    | -              | -              | -  | -                       |                         |                   |

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

This funding line is directly aligned to the Army Network Modernization Priority. Project BT2, Command Post Mobility/Survivability, is directly aligned to the Army Network Modernization Strategy Line of Effort 4 (LOE 4), Command Post Mobility and Survivability. These efforts support advanced component development activities that are directly aligned to the Army's Tactical Network Capability Set development and fielding plans.

This project supports mobile Command Post efforts that may transition to sponsoring programs that get integrated in Command Post Integrated Infrastructure (CPI2) platforms. The technical maturation and evaluation allow for Command Post disaggregation capabilities to inform future designs and support Command Post survivability against near peer competitors. Spectrum obfuscation and assessments of antenna remoting will support the Command Post efforts for CPI2 Increment 1 and beyond.

FY 2024 funds will be used to mature, prototype, and evaluate emerging technologies that will inform design choices for the Army's Command Post infrastructure. Funds also support identification, maturation, demonstration, and evaluation of Technology Readiness Level (TRL) 6+ systems and subsystem components leading to a desired end state of resilient communications, adaptable computing and infrastructure, integrated power, electromagnetic signature management, and electromagnetic signature awareness to support Joint and Coalition Interoperability requirements in addition to Multi-Domain Operations (MDO) in Disconnected, Intermittent, and Limited (DIL) conditions. Successful solutions identified through evaluation in a high fidelity and realistic operating environment will be transitioned to Programs of Record for integration and fielding. Funds will also support integration with solutions identified in other Modernization Cross Functional Team (CFT) efforts to ensure network dependencies are addressed.

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

|  | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> BT2 Command Post Mobility and Survivability  | 5.184          | 7.920          | 8.081          |
| <b>Description:</b> This funding is used to identify and acquire technologies for evaluation that address gaps associated with LOE 4, Command Post (CP), in the overall Integrated Tactical Network. The CP LOE will focus on developing and obtaining approval of requirements for integrated command posts, then delivering these integrated command post designs to Army units. LOE 4 addresses the operational requirement of Deployable, Integrated, and Mobile Command Post and integrates Knowledge Management. |                |                |                |
| <b>FY 2023 Plans:</b><br>Funds will be used to mature, prototype, and evaluate emerging technologies relating to mobile and survivable Command Posts in a contested and congested environment. Effort includes maturing integrated power capabilities to provide redundancy in power generation that will inform design choices for the Army's Command Post infrastructure. Effort also includes creating  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army   |  | <b>Date:</b> March 2023  |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 4   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |  | <b>FY 2022</b>   | <b>FY 2023</b> | <b>FY 2024</b> |
| <p>signature awareness, reducing total electromagnetic signature, creating the means to disperse CP nodes and retaining effective Commander-Staff collaboration against near peer competition. These efforts will be demonstrated and evaluated with FORSCOM and inform the program technical baseline and DOTMLPF. Innovative industry prototyping and evaluation associated with Technical Exchange Meetings (TEM) will lead to the assessment, demonstration, prototyping and integration of emerging industry solutions. Requirements for Command Post Mobility and Survivability will align with prioritization of science &amp; technology and industry innovation efforts in support of Army Capability Set development.</p> <p><b>FY 2024 Plans:</b><br/>Funds will be used to mature, prototype, and evaluate emerging technologies relating to mobile and survivable Command Posts in a contested and congested environment. Effort includes maturing adaptable computing infrastructure to provide high throughput, resilient communications such as the work in Protected Communications for Manned/Unmanned Teams. Effort also includes developing and integrating technologies, material solutions and tactics into a holistic system that will prevent detection of high value assets (such as command posts) from enemy ISR systems through concealment and strategic initiatives solutions. Additionally, effort plans include creating signature awareness, integrated power, reducing total electromagnetic signature, creating the means to disperse CP nodes and retaining effective Commander-Staff collaboration against near peer competition. These efforts will be demonstrated and evaluated with FORSCOM and inform the program technical baseline and doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF). Innovative industry prototyping and evaluation associated with Technical Exchange Meetings (TEM) will lead to the assessment, demonstration, prototyping and integration of emerging industry solutions. Requirements for Command Post Mobility and Survivability will align with prioritization of science &amp; technology and industry innovation efforts in support of Army Capability Set development.</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br/>Funding remains relatively consistent.</p> |  |  |                |                |
| <p><b>Title:</b> Program Management</p> <p><b>Description:</b> Program management includes overall management of program execution, major events, reporting, funding execution, and contract management. Includes participation in program planning and Integrated Product Team meetings with key stakeholders including the Network Cross Functional Team (N-CFT).</p> <p><b>FY 2023 Plans:</b><br/>Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.</p> <p><b>FY 2024 Plans:</b></p>   |  | 0.397  | 0.490          | 0.500          |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army  |  | <b>Date:</b> March 2023  |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 4  | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>   |  | <b>FY 2022</b>   | <b>FY 2023</b> | <b>FY 2024</b> |
| Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.  |  |  |                |                |
| <b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br>Funding remains relatively consistent.  |  |  |                |                |
| <b>Title:</b> SBIR/STTR Transfer  |  | -  | 0.319          | -              |
| <b>Description:</b> Funding transferred in accordance with Title 15 USC §638.   |  |  |                |                |
| <b>FY 2023 Plans:</b><br>Funding transferred in accordance with Title 15 USC §638.  |  |  |                |                |
| <b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br>Funding transferred in accordance with Title 15 USC §638.   |  |  |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>   |  | 5.581  | 8.729          | 8.581          |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>  |  |  |                |                |
| N/A   |  |  |                |                |
| <b>Remarks</b>  |  |  |                |                |
| N/A   |  |  |                |                |
| <b>D. Acquisition Strategy</b>  |  |  |                |                |
| <p>Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will coordinate with the Army Modernization Cross Functional Teams on technologies to be evaluated with appropriate Program Management (PM) offices where there is an opportunity for technology insertion. Technologies that are determined to address technology gaps and require further evaluation will be documented in a Product Plan that authorizes a plan of execution for each capability being pursued. The various prototyping technologies will be pursued via competitively awarded contracts using best value source selection procedures. Identified Technology Readiness Level (TRL) 6 technologies will be matured, demonstrated, tested, and evaluated in realistic environments to achieve TRL 7. Selected technologies will be integrated into existing Programs of Record. A Transition Agreement (TA) is completed between the receiving PEO and the Science and Technology (S&amp;T) community no later than halfway between the project start date and the project's first anticipated transition of any product(s) to a PEO/PM.</p> |  |  |                |                |

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army** **Date:** March 2023

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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |
|--|--|--|

| <b>Management Services (\$ in Millions)</b> |                        |                                |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item                          | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Program Management Office Support           | TBD                    | BAH/ACC/NIWC-LANT : APG, MD    | -           | 0.397   | Feb 2022   | 0.490   | Dec 2022   | 0.500        | Dec 2023   | -           |            | 0.500         | 0.000            | 1.387      | -                        |
| SBIR/STTR Transfer                          | TBD                    | TBD : TBD                      | -           | -       |            | 0.319   | Mar 2023   | -            |            | -           |            | -             | 0.000            | 0.319      | -                        |
| <b>Subtotal</b>                             |                        |                                | -           | 0.397   |            | 0.809   |            | 0.500        |            | -           |            | 0.500         | 0.000            | 1.706      | N/A                      |

| <b>Product Development (\$ in Millions)</b>              |                        |   |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|---|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item                                       | Contract Method & Type | Performing Activity & Location                                  | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Science & Technology - Surv Cmd Post                     | TBD                    | CCDC/Polaris Alpha/AASKI : APG, MD/ Fredericksburg, VA/ APG, MD | 8.560       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 8.560      | -                        |
| Science & Technology - Spectrum Obfuscation              | TBD                    | BAH : Mclean, VA  | 5.088       | 1.270   | Mar 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 6.358      | -                        |
| Science & Technology Maturation Prototyping & Evaluation | TBD                    | DEVCOM C5ISR / PEO C3T : APG, MD                                | -           | -       |            | 4.194   | Dec 2022   | 5.500        | Dec 2023   | -           |            | 5.500         | 0.000            | 9.694      | -                        |
| Industry Innovation Prototyping & Evaluation             | TBD                    | TBD : TBD   | 1.047       | 3.914   | Mar 2022   | 3.726   | Feb 2023   | 2.581        | Feb 2024   | -           |            | 2.581         | 0.000            | 11.268     | -                        |
| <b>Subtotal</b>  |                        |   | 14.695      | 5.184   |            | 7.920   |            | 8.081        |            | -           |            | 8.081         | 0.000            | 35.880     | N/A                      |

|                            | Prior Years | FY 2022 | FY 2023 | FY 2024 Base | FY 2024 OCO | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| <b>Project Cost Totals</b> |             | 14.695  | 5.581   | 8.729        | 8.581       | 8.581         | 0.000            | 37.586     | N/A                      |

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army** **Date:** March 2023

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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |
|--|--|--|

| Event Name   | FY 2022 |   |   |   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|  | 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 |
| Survivable Command Post                                      |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Spectrum Obfuscation   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Lower Echelon Analytics Platform Tactical (LTAC) Integration |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Mobile and Survivable Command Posts (MASCP)                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Industry Innovation Prototyping & Evaluation                 |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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**Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army** **Date:** March 2023

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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT2 / <i>Command Post Mobility/Survivability</i> |
|--|--|--|

Schedule Details

| Events   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Survivable Command Post                                      | 2       | 2020 | 4       | 2022 |
| Spectrum Obfuscation   | 2       | 2020 | 4       | 2022 |
| Lower Echelon Analytics Platform Tactical (LTAC) Integration | 2       | 2023 | 1       | 2024 |
| Mobile and Survivable Command Posts (MASCP)                  | 2       | 2024 | 1       | 2028 |
| Industry Innovation Prototyping & Evaluation                 | 4       | 2020 | 1       | 2029 |

**Note**

Industry Innovation Prototyping and Evaluation projects are awarded following Technical Exchange Meetings (TEM) and are continuous activities; Network Cross Functional Team (N-CFT) and Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will reach out to industry partners in order to assess and demonstrate the latest emerging technologies which will reduce capability gaps and provide rapid software/hardware insertions into Programs of Records.

Changes from PB23 Schedule:

- Science and Technology (S&T) projects are evaluated based on ongoing forums with the S&T community. N-CFT and PEO C3T track changes to the S&T efforts, including but not limited to, titles, descriptions, Technology Readiness Level (TRL), planned program transition and transfer agreement status. N-CFT and PEO C3T utilize this information to prioritize the S&T projects by fiscal year.
- Lower Echelon Analytics Platform Tactical (LTAC) Integration was identified as a 6.4 RDTE effort scheduled to commence in 2Q FY 2023.
- The schedule for Mobile and Survivable Command Posts (MASCP) is inclusive of multiple sub-efforts from 2Q FY 2024 through 2Q FY2028.
- The schedule for Industry Innovation Prototyping & Evaluation extends through FY 2028 to reflect the continuous nature of industry engagements.

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army |                    |                |                |                     |  |                      |                |                |   | <b>Date:</b> March 2023 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> |                      |                |                | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024 Base</b> | <b>FY 2024 OCO</b>   | <b>FY 2024 Total</b> | <b>FY 2025</b> | <b>FY 2026</b> | <b>FY 2027</b>  | <b>FY 2028</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| BT3: <i>Common Operating Environment (COE)</i>                     | -                  | 7.708          | 7.335          | 7.215               | -  | 7.215                | 7.232          | 7.241          | 7.318   | 7.400                   | Continuing              | Continuing        |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -  | -                    | -              | -              | -   | -                       |                         |                   |

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

This funding line is directly aligned to the Army Network Modernization Priority. Project BT3, Common Operating Environment (COE), is directly aligned to the Army Network Modernization Strategy Line of Effort 2 (LOE 2), Common Operating Environment (COE). These efforts support advanced component development activities that are aligned to the Army's Tactical Network Capability Set development and fielding plans.

This project will inform future network, applications and data capability sets by evaluating and maturing the use of cloud technologies, virtual augmentation, artificial intelligence, data convergence and analytics in the Common Operating Environment. This includes processing and storage to improve the architecture support for mobile, secure and distributed operations. Common Operating Environment (COE), creates an approved set of standards, computing technologies, integrated data and databases, common graphics and a unified set of mission command applications. It allows warfighters to adapt and configure the network as conditions change which is outlined in the approved COE requirements documents.

FY 2024 funds will be used to mature technologies to assess and evaluate the technical feasibility of solutions for enhanced planning and execution capabilities that enable rapid decision making at the speed of relevance. Funds will also support identification, maturation, demonstration, and evaluation of Technology Readiness Level (TRL) 6+ systems and subsystem components including data discovery, synchronization, security, and analysis across multiple data silos and disparate data platforms to efficiently converge data types to support Joint and Coalition Interoperability requirements. Funds will also support integration with solutions identified in other Modernization Cross Functional Team (CFT) efforts to ensure network dependencies are addressed.

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

|  | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> BT3 Common Operating Environment   | 7.565          | 6.675          | 6.815          |
| <b>Description:</b> This funding is used to identify and acquire technologies to address gaps associated with LOE 2, Common Operating Environment (COE), in the overall Integrated Network. This LOE creates an approved set of standards, computing technologies, integrated data and databases and common graphics and a unified set of mission command applications. It will also support collaboration using a common picture with joint and coalition mission partners. This LOE delivers an integrated body of requirements that meet operational needs. |                |                |                |
| <b>FY 2023 Plans:</b>  |                |                |                |
| Funds will be used to continue efforts to mature technologies that capture, correlate, present data and enable rapid decision making at the speed of relevance using Artificial Intelligence/Machine Learning (AI/ML) and Automated Data Processing  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army   |  | <b>Date:</b> March 2023   |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 4   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |  | <b>FY 2022</b>  | <b>FY 2023</b> | <b>FY 2024</b> |
| <p>capabilities. Funds will also be used to evaluate the technical feasibility of solutions for expanded computing in tactical environments, data convergence, data fabric, sensor integration across identified platforms, flexible and scalable computing hardware/software, and applications security to inform command post computing environment tactical cloud/server infrastructure as well as efforts for innovative industry prototyping and evaluation associated with Technical Exchange Meetings (TEM) that will lead to potential solutions to assess, demonstrate, prototype, and integrate emerging industry solutions to mature Common Operating Environment capabilities. Requirements for Common Operating Environment will align with prioritization of science &amp; technology and industry innovation efforts in support of Army Capability Set development.</p> <p><b>FY 2024 Plans:</b><br/>Funds will be used to continue efforts to mature technologies that capture, correlate, present data and enable rapid decision making at the speed of relevance using Artificial Intelligence/Machine Learning (AI/ML) and Automated Data Processing capabilities. Funds will also be used to evaluate the technical feasibility of solutions for expanded computing in tactical environments, data convergence, data fabric, sensor integration across identified platforms, flexible and scalable computing hardware/software, enhanced military decision making processes (MDMP), and applications security to inform command post computing environment tactical cloud/server infrastructure as well as efforts for innovative industry prototyping and evaluation associated with Technical Exchange Meetings (TEM) that will lead to potential solutions to assess, demonstrate, prototype, and integrate emerging industry solutions to mature Common Operating Environment capabilities. Requirements for Common Operating Environment will align with prioritization of science &amp; technology and industry innovation efforts in support of Army Capability Set development.</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br/>Funding remains relatively consistent.</p> |  |   |                |                |
| <p><b>Title:</b> Program Management</p> <p><b>Description:</b> Program management includes overall management of program execution, major events, reporting, funding execution, and contract management. Includes participation in program planning and Integrated Product Team meetings with key stakeholders including the Network Cross Functional Team (N-CFT).</p> <p><b>FY 2023 Plans:</b><br/>Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.</p> <p><b>FY 2024 Plans:</b></p>   |  | 0.143   | 0.392          | 0.400          |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army   |  | <b>Date:</b> March 2023   |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 4   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |  | <b>FY 2022</b>  | <b>FY 2023</b> | <b>FY 2024</b> |
| Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.<br><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br>Funding remains relatively consistent.   |  |   |                |                |
| <b>Title:</b> SBIR/STTR Transfer<br><b>Description:</b> Funding transferred in accordance with Title 15 USC §638.<br><b>FY 2023 Plans:</b><br>Funding transferred in accordance with Title 15 USC §638.<br><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br>Funding transferred in accordance with Title 15 USC §638.   |  | -   | 0.268          | -              |
| <b>Accomplishments/Planned Programs Subtotals</b>  |  | 7.708   | 7.335          | 7.215          |
| <b>C. Other Program Funding Summary (\$ in Millions)</b><br>N/A<br><b>Remarks</b><br>N/A   |  |   |                |                |
| <b>D. Acquisition Strategy</b><br>Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will coordinate with the Army Modernization Cross Functional Teams on technologies to be evaluated with appropriate Program Management (PM) offices where there is an opportunity for technology insertion. Technologies that are determined to address technology gaps and require further evaluation will be documented in a Product Plan that authorizes a plan of execution for each capability being pursued. The various prototyping technologies will be pursued via competitively awarded contracts using best value source selection procedures. Identified Technology Readiness Level (TRL) 6 technologies will be matured, demonstrated, tested, and evaluated in realistic environments to achieve TRL 7. Selected technologies will be integrated into existing Programs of Record. A Transition Agreement (TA) is completed between the receiving PEO and the Science and Technology (S&T) community no later than halfway between the project start date and the project's first anticipated transition of any product(s) to a PEO/PM. |  |   |                |                |

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army** **Date:** March 2023

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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |
|--|--|---|

| <b>Management Services (\$ in Millions)</b> |                        |                                |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item                          | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Program Management Office Support           | TBD                    | BAH/ACC/NIWC-LANT : APG, MD    | 0.827       | 0.143   | Nov 2022   | 0.392   | Dec 2022   | 0.400        | Dec 2023   | -           |            | 0.400         | 0.000            | 1.762      | -                        |
| SBIR/STTR Transfer                          | TBD                    | TBD : TBD                      | -           | -       |            | 0.268   | Mar 2023   | -            |            | -           |            | -             | 0.000            | 0.268      | -                        |
| <b>Subtotal</b>                             |                        |                                | 0.827       | 0.143   |            | 0.660   |            | 0.400        |            | -           |            | 0.400         | 0.000            | 2.030      | N/A                      |

| <b>Product Development (\$ in Millions)</b>                |                        |   |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|---|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item   | Contract Method & Type | Performing Activity & Location                | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Science & Technology (S&T) Maturation - Spectrum Awareness | TBD                    | CCDC/BAH/MITRE : APG, MD                      | 1.000       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 1.000      | -                        |
| S&T Maturation - Cyber Situational Awareness               | TBD                    | CCDC/MITRE/CACI/ MIT LL : APG, MD, Various    | 3.500       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 3.500      | -                        |
| S&T Maturation - Modular RF                                | TBD                    | DEVCOM AvMC/ SAIC : Huntsville, AL            | 1.883       | 3.055   | Jan 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 4.938      | -                        |
| S&T Maturation - C5ISR Modular Open Suite of Standards     | TBD                    | CCDC/Spectranetix : APG, MD/Sunnyvale, CA     | 0.157       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 0.157      | -                        |
| S&T Maturation - Rainmaker                                 | TBD                    | DEVCOM : APG, MD / Picatinny, NJ              | -           | 2.804   | Apr 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 2.804      | -                        |
| Science & Technology Maturation Prototyping & Evaluation   | TBD                    | DEVCOM C5ISR, PEO C3T : APG, MD               | -           | -       |            | 3.763   | Dec 2022   | 4.000        | Dec 2023   | -           |            | 4.000         | 0.000            | 7.763      | -                        |
| Industry Innovation - Common Data Fabric                   | TBD                    | Palantir : Palo Alto, CA                      | 3.775       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 3.775      | -                        |
| Industry Innovation - Predictive Combat Power              | C/CPFF                 | Parsons Government Services : Centreville, VA | -           | 1.706   | Jul 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 1.706      | -                        |
| Industry Innovation Prototyping & Evaluation               | TBD                    | TBD : TBD                                     | 0.895       | -       |            | 2.912   | Feb 2023   | 2.815        | Feb 2024   | -           |            | 2.815         | 0.000            | 6.622      | -                        |



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| <b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Army</b> |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4             | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |

| Event Name  | FY 2022 |   |   |   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|   | 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 |
| Cyber Situational Understanding                             | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Modular RF  | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Rainmaker   |         |   | █ | █ | █       | █ | █ | █ |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Roadrunner  |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ |
| Geospatially Enabled Operational Design (GEOD)              |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ |
| Agile Virtual Enclave (AVE)                                 |         |   |   |   |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ |         |   |   |   |         |   |   |   |         |   |   |   |
| Information Trust   |         |   |   |   |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ |         |   |   |   |         |   |   |   |
| PKI Modernization   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ |         |   |   |   |
| Tactical Hardening for Quantum                              |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   | █       | █ | █ | █ | █       | █ | █ | █ |
| Virtual Orchestration for Kinetic/Non-Kinetic Targeting ... |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   | █       | █ | █ | █ |
| Industry Innovation Prototyping & Evaluation                | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ | █       | █ | █ | █ |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Army |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4              | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |

Schedule Details

| Events  | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| Cyber Situational Understanding                                 | 2       | 2020 | 1       | 2022 |
| Spectrum Awareness  | 2       | 2020 | 2       | 2021 |
| Hardened Transport  | 4       | 2020 | 1       | 2021 |
| Modular RF  | 4       | 2021 | 4       | 2024 |
| Rainmaker   | 3       | 2022 | 2       | 2023 |
| Roadrunner  | 1       | 2023 | 4       | 2027 |
| Geospatially Enabled Operational Design (GEOD)                  | 1       | 2023 | 4       | 2027 |
| Agile Virtual Enclave (AVE)                                     | 1       | 2024 | 4       | 2025 |
| Information Trust   | 1       | 2024 | 4       | 2026 |
| PKI Modernization   | 1       | 2026 | 4       | 2027 |
| Tactical Hardening for Quantum                                  | 1       | 2027 | 4       | 2028 |
| Virtual Orchestration for Kinetic/Non-Kinetic Targeting Effects | 1       | 2028 | 4       | 2029 |
| Industry Innovation Prototyping & Evaluation                    | 4       | 2020 | 1       | 2029 |

**Note**

Industry Innovation Prototyping and Evaluation projects are awarded following Technical Exchange Meetings (TEM) and are continuous activities; Network Cross Functional Team (N-CFT) and Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will reach out to industry partners in order to assess and demonstrate the latest emerging technologies which will reduce capability gaps and provide rapid software/hardware insertions into Programs of Record.

Changes from PB23 Schedule:

- Science and Technology (S&T) projects are evaluated based on ongoing forums with the S&T community. N-CFT and PEO C3T track changes to the S&T efforts, including but not limited to - titles, descriptions, Technology Readiness Level (TRL), planned program transition and transfer agreement status. N-CFT and PEO C3T utilize this information to prioritize the S&T projects by fiscal year.
- Rainmaker commenced in 3Q FY 2022 continuing to 2Q FY 2023.
- Applications Security-Containers (AppSec-C) is removed from the 6.4 RDTE schedule.

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2024 Army</b> |  | <b>Date: March 2023</b>   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4              | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT3 / <i>Common Operating Environment (COE)</i> |

- Information Trust is now projected to conclude at the end of FY 2026 in support of future Capability Set development and fielding.
- Roadrunner was identified as a 6.4 RDTE effort commencing in FY 2023.
- Geospatially-Enabled Operation Design was identified as a 6.4 RDTE effort commencing in FY 2023.
- Agile Virtual Enclave was identified as a 6.4 RDTE effort commencing in FY 2024.
- PKI Modernization was identified as a 6.4 RDTE effort commencing in FY 2026.
- Tactical Hardening for Quantum was identified as a 6.4 RDTE effort commencing in FY 2027.
- Virtual Orchestration for Kinetic/Non-Kinetic Targeting Effects was identified as a 6.4 RDTE effort commencing in FY 2028.
- The schedule for Industry Innovation Prototyping & Evaluation extends through FY 2028 to reflect the continuous nature of industry engagements.

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|--|--------------------|----------------|----------------|---------------------|--|----------------------|----------------|----------------|---|-------------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army |                    |                |                |                     |  |                      |                |                |   | <b>Date:</b> March 2023 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> |                      |                |                | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024 Base</b> | <b>FY 2024 OCO</b>   | <b>FY 2024 Total</b> | <b>FY 2025</b> | <b>FY 2026</b> | <b>FY 2027</b>  | <b>FY 2028</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| BT5: <i>Integrated Tactical Network/Enterprise Network</i>         | -                  | 20.590         | 20.902         | 25.119              | -  | 25.119               | 27.063         | 29.458         | 28.682  | 27.915                  | Continuing              | Continuing        |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -  | -                    | -              | -              | -   | -                       |                         |                   |

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

This funding line is directly aligned to the Army Network Modernization Priority. Project BT5, Integrated Tactical Network/Enterprise Network (ITN/IEN), is directly aligned to the Army Network Modernization Strategy Line of Effort 1 (LOE 1), Unified Network. These efforts support advanced component development activities that are aligned to the Army's Tactical Network Capability Set development and fielding plans.

This project enables a converged Mission Command Network that operates seamlessly worldwide and in any environment. It includes the development of a standards-based network architecture that unifies enterprise and deployed network capabilities and features a unified transport layer, network operations and other enabling functions that allows integration of disparate networks. The Army network will provide resiliency through path diversity and dynamic routing to ensure tactical units can communicate in hostile environments. It will provide multiple ways to communicate and give commanders the ability to have a network that delivers the right information and data at the right time during operations. It fully incorporates cyber and electronic warfare capabilities that support the employment of the network as a weapon system.

FY 2024 funding will be used to inform design decisions for future tactical network capability sets in the areas of resilient wideband satellite communications capabilities, non-traditional waveforms, narrowband waveforms, and implementation of Automated Primary Alternate Contingency and Emergency (PACE) communications through evaluation and technical maturation. Funds also support identification, maturation, demonstration, and evaluation of Technology Readiness Level (TRL) 6+ systems and subsystem components including resilient, alternate Beyond Line of Site (BLOS) capability in support of legacy high frequency waveforms. Funds also support development of Cyber Electromagnetic Activities (CEMA) situational understanding and operations Interoperability functions. Additionally, funds support development of a modular open standards systems architecture. Successful solutions identified through evaluation in a high fidelity and realistic operating environment will be transitioned to Programs of Record for integration and fielding. Funds will also support integration with solutions identified in other Modernization Cross Functional Team (CFT) efforts to ensure network dependencies are addressed. Funds will support highly scalable and robust waveforms with simplified network management for operations in congested or contested environments.

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

|   | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Project BT5: Integrated Tactical Network/Integrated Enterprise Network  | 19.984         | 18.934         | 23.890         |
| <b>Description:</b> This funding is used to identify and acquire technologies to address gaps associated with LOE 1, Unified Network, for evaluation and demonstration in the overall Integrated Network. The Unified Network LOE enables a converged Mission Command Network that operates seamlessly worldwide and in any environment. This will require the creation of a standards-based network architecture that effectively integrates enterprise and deployed network capabilities across domains and |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

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

environments and features a unified transport layer that permits "plug and play" for specific network capabilities. LOE 1 addresses the following operational requirements: Converged Mission Command Network, Network Augmentation / Extension, and Synthetic Training Environment.

***FY 2023 Plans:***

Funds will be used to continue science and technology evaluation and prototyping solutions to support approved requirements documents and critical network modernization efforts to accelerate/integrate Next Generation Tactical radios, Air to ground integration, commercial 5G capabilities for mounted/dismounted soldiers and solutions for a hardened, resilient network. Efforts will include evaluation of artificial intelligence and other advanced solutions for communications network processing, transport, and operations to support resiliency in a distributed environment. Funding will allow the Army to identify and prototype solutions to mature the implementation of Automated Primary Alternate Contingency and Emergency (PACE) communications, network transport and gateway components of the Mission Partner Environment (MPE) and share network operations information through warfighting assessments and evaluations that will inform future capability sets. Funds will also be used for innovative industry prototyping and evaluation efforts associated with Technical Exchange Meetings (TEM) to assess, demonstrate, prototype, and integrate emerging industry solutions to mature unified network capabilities to include integration of commercial 5G and high throughput resilient wideband satellite communications. Requirements for Integrated Tactical Network/Integrated Enterprise Network will align with prioritization of science & technology and industry innovation efforts in support of Army Capability Set development.

***FY 2024 Plans:***

Funds will be used to continue science and technology evaluation and prototyping solutions to support approved requirements documents and critical network modernization efforts to accelerate/integrate Next Generation Tactical radios, automated cyber defense tools, non-traditional waveforms, narrowband waveforms, and Line of Sight (LOS) and Beyond Line of Sight (BLOS) communications. Funding will allow the Army to identify and prototype solutions to mature the implementation of Automated Primary Alternate Contingency and Emergency (PACE) communications, network transport and gateway components of the Mission Partner Environment (MPE) and share network operations information through warfighting assessments and evaluations that will inform future capability sets. Funds will also be used for advanced component development and for innovative industry prototyping and evaluation efforts associated with Technical Exchange Meetings (TEM) to assess, demonstrate, prototype, and integrate emerging industry solutions to mature unified network capabilities to include development of an open standards systems architecture. Requirements for Integrated Tactical Network/Integrated Enterprise Network will align with prioritization of science & technology and industry innovation efforts in support of Army Capability Set development.

***FY 2023 to FY 2024 Increase/Decrease Statement:***

| FY 2022 | FY 2023 | FY 2024 |
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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army   |  | <b>Date:</b> March 2023   |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 4   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |  | <b>FY 2022</b>  | <b>FY 2023</b> | <b>FY 2024</b> |
| Increase is due to requirements associated with transitioning science & technology and industry innovation efforts in support of Army Capability Set 25 and 27+ development.   |  |   |                |                |
| <p><b>Title:</b> Program Management</p> <p><b>Description:</b> Program management includes overall management of program execution, major events, reporting, funding execution, and contract management. Includes participation in program planning and Integrated Product Team meetings with key stakeholders including the Network Cross Functional Team (N-CFT).</p> <p><b>FY 2023 Plans:</b><br/>Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.</p> <p><b>FY 2024 Plans:</b><br/>Funds will be used to provide overall management in support of Unified Network Transport efforts, including contractor personnel and contract management support via Army Contracting Command.</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br/>Funding remains relatively consistent.</p> |  | 0.606   | 1.205          | 1.229          |
| <p><b>Title:</b> SBIR/STTR Transfer</p> <p><b>Description:</b> Funding transferred in accordance with Title 15 USC §638.</p> <p><b>FY 2023 Plans:</b><br/>Funding transferred in accordance with Title 15 USC §638.</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b><br/>Funding transferred in accordance with Title 15 USC §638.</p>  |  | -   | 0.763          | -              |
| <b>Accomplishments/Planned Programs Subtotals</b>  |  | 20.590  | 20.902         | 25.119         |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>   |  |   |                |                |
| N/A  |  |   |                |                |
| <b>Remarks</b>   |  |   |                |                |
| N/A  |  |   |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Army |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

**D. Acquisition Strategy**

Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will coordinate with the Army Modernization Cross Functional Teams on technologies to be evaluated with appropriate Program Management (PM) offices where there is an opportunity for technology insertion. Technologies that are determined to address technology gaps and require further evaluation will be documented in a Product Plan that authorizes a plan of execution for each capability being pursued. The various prototyping technologies will be pursued via competitively awarded contracts using best value source selection procedures. Identified Technology Readiness Level (TRL) 6 technologies will be matured, demonstrated, tested, and evaluated in realistic environments to achieve TRL 7. Selected technologies will be integrated into existing Programs of Record. A Transition Agreement (TA) is completed between the receiving PEO and the Science and Technology (S&T) community no later than halfway between the project start date and the project's first anticipated transition of any product(s) to a PEO/PM.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army** **Date:** March 2023

|  |  |   |
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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |
|--|--|---|

| <b>Management Services (\$ in Millions)</b> |                        |   |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|---|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item                          | Contract Method & Type | Performing Activity & Location                        | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Project Management Office Support           | MIPR                   | CCDC/BAH/ACC/NIWC-LANT : APG, MD/North Charleston, SC | 0.364       | 0.606   | Feb 2022   | 1.205   | Dec 2022   | 1.229        | Dec 2023   | -           |            | 1.229         | 0.000            | 3.404      | -                        |
| SBIR/STTR Transfer                          | TBD                    | TBD : TBD   | -           | -       |            | 0.763   | Mar 2023   | -            |            | -           |            | -             | 0.000            | 0.763      | -                        |
| <b>Subtotal</b>                             |                        |   | 0.364       | 0.606   |            | 1.968   |            | 1.229        |            | -           |            | 1.229         | 0.000            | 4.167      | N/A                      |

| <b>Product Development (\$ in Millions)</b>                          |                        |  |             | FY 2022 |            | FY 2023 |            | FY 2024 Base |            | FY 2024 OCO |            | FY 2024 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|--|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item   | Contract Method & Type | Performing Activity & Location                   | Prior Years | Cost    | Award Date | Cost    | Award Date | Cost         | Award Date | Cost        | Award Date | Cost          |                  |            |                          |
| Science & Technology (S&T) Maturation - Soldier Authentication       | Various                | CCDC/FlexTech Alliance : APG, MD                 | 4.000       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 4.000      | -                        |
| S&T Maturation - INB2  | Various                | CodeMettle : Atlanta, GA                         | 7.529       | 0.417   | Jan 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 7.946      | -                        |
| S&T Maturation - AppSecC   | MIPR                   | CCDC : APG, MD                                   | 2.800       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 2.800      | -                        |
| S&T Maturation - TSM IC  | Various                | CCDC/BAH/CACI : APG, MD/Mclean, VA/Arlington, VA | 1.008       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 1.008      | -                        |
| S&T Maturation - Next Generation High Frequency                      | TBD                    | CCDC/MIT-LL : APG, MD/Lexington, MA              | 3.696       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 3.696      | -                        |
| S&T Maturation - Non-traditional Waveforms                           | TBD                    | CCDC/BAH/CACI : APG, MD                          | 1.454       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 1.454      | -                        |
| S&T Maturation - Protected Comms for Manned-Unmanned Teaming         | TBD                    | DEVCOM/BAH/CACI : APG, MD                        | 2.500       | 3.150   | Apr 2022   | -       |            | -            |            | -           |            | -             | 0.000            | 5.650      | -                        |
| S&T Maturation - Resilient Wideband SATCOM Interference Cancellation | TBD                    | CCDC/BAE : APG, MD/Burlington, MA                | 2.000       | -       |            | -       |            | -            |            | -           |            | -             | 0.000            | 2.000      | -                        |

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army** **Date:** March 2023

|  |  |   |
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| <b>Appropriation/Budget Activity</b><br>2040 / 4 | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |
|--|--|---|

| <b>Product Development (\$ in Millions)</b>  |                                   |  |                    | <b>FY 2022</b> |                   | <b>FY 2023</b> |                   | <b>FY 2024 Base</b> |                   | <b>FY 2024 OCO</b> |                   | <b>FY 2024 Total</b> | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
|--|-----------------------------------|--|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| <b>Cost Category Item</b>  | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b>                                      | <b>Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>        | <b>Award Date</b> | <b>Cost</b>          |                         |                   |                                 |
| S&T Maturation - CMOSS Mounted Form Factor   | TBD                               | CCDC/Polaris Alpha/Spectranetix : APG, MD/Sunnyvale, CA                        | 1.241              | 1.450          | Mar 2022          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 2.691             | -                               |
| S&T Maturation - Secured Handheld on Assured Resilient Networks at the Tactical Edge (SHARE) | TBD                               | Two Six Technologies : Arlington, VA   | -                  | 1.465          | Apr 2022          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 1.465             | -                               |
| S&T Maturation - Aerial Tier Networking  | TBD                               | DEVCOM/CACI/BAH : APG, MD  | -                  | 2.282          | Jun 2022          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 2.282             | -                               |
| Science & Technology (S&T) Maturation Prototyping & Evaluation                               | TBD                               | DEVCOM C5ISR / PEO C3T : APG, MD   | -                  | -              |                   | 11.000         | Dec 2022          | 19.764              | Dec 2023          | -                  |                   | 19.764               | 0.000                   | 30.764            | -                               |
| Industry Innovation - C5ISR Modular Open Suite of Standards                                  | C/Various                         | Trellisware/Spectranetix/GDMS/NGC : San Diego, CA/Sunnyvale, CA/Scottsdale, AZ | 5.296              | 7.458          | Dec 2021          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 12.754            | -                               |
| Industry Innovation - Intra-CP Node Wireless   | MIPR                              | L3Harris/BATS, Inc : Rochester, NY/Indianapolis, IN                            | 1.526              | 0.247          | Sep 2022          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 1.773             | -                               |
| Industry Innovation - SATCOM Modem Modernization & Virtualization                            | C/Various                         | Kratos/L3Harris : Colorado Springs, CO/Palm Bay, FL                            | -                  | 3.515          | Apr 2022          | -              |                   | -                   |                   | -                  |                   | -                    | 0.000                   | 3.515             | -                               |
| Industry Innovation Prototyping & Evaluation   | TBD                               | TBD : TBD  | 0.261              | -              |                   | 7.934          | Feb 2023          | 4.126               | Feb 2024          | -                  |                   | 4.126                | 0.000                   | 12.321            | -                               |
| <b>Subtotal</b>  |                                   |  | 33.311             | 19.984         |                   | 18.934         |                   | 23.890              |                   | -                  |                   | 23.890               | 0.000                   | 96.119            | N/A                             |

|                            | <b>Prior Years</b> | <b>FY 2022</b> | <b>FY 2023</b> | <b>FY 2024 Base</b> | <b>FY 2024 OCO</b> | <b>FY 2024 Total</b> | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |     |
|----------------------------|--------------------|----------------|----------------|---------------------|--------------------|----------------------|-------------------------|-------------------|---------------------------------|-----|
| <b>Project Cost Totals</b> |                    | 33.675         | 20.590         | 20.902              | 25.119             | -                    | 25.119                  | 0.000             | 100.286                         | N/A |

**Remarks**

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Army</b> |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4             | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

| Event Name  | FY 2022 |   |   |   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|   | 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 |
| Integrated Network Operations Battalion and Below (INB2)    | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Protected Comms for Manned-unmanned teaming (MUM-T)         | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| CMOSS Mounted Form Factor (CMFF)                            | █       |   |   |   |         |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Non-traditional Waveforms                                   | █       |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Resilient Wideband SATCOM - Interference Cancellation       | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Aerial Tier Networking                                      | █       |   |   |   |         |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Secured Handheld on Assured Resilient Networks at the Ta... | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Next Generation High Frequency (NGHF)                       |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Adaptive Network Optimization Narrowband                    |         |   |   |   |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |
| Warrior Robust Enhanced Network (WREN) Enhancements         |         |   |   |   |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |
| Autonomous Cyber  |         |   |   |   |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |
| Resilient Wideband SATCOM - OTM & ATH                       |         |   |   |   |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |         |   |   |   |
| Dynamic Access & Control - Tactical (DAC-T)                 |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   | █       |   |   |   | █       |   |   |   |         |   |   |   |

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Army</b> |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4             | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

| Event Name                                       | FY 2022 |   |   |   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relay for Air Non-LOS Ground Environment (RANGE) |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High-Altitude: WGS Ka Band Surrogate (HAWKS)     |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Predictive Intelligent Networking (PIN)          |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Multi-Orbit Modem                                |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Network Obscuration                              |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Industry Innovation Prototyping & Evaluation     |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Army |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4              | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

Schedule Details

| Events   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Application Security with Containers (AppSec-C)                              | 2       | 2020 | 2       | 2021 |
| Integrated Network Operations Battalion and Below (INB2)                     | 2       | 2020 | 2       | 2022 |
| Tactical Scalable Mobile Ad-hoc Networking (MANET) Interference Cancellation | 4       | 2020 | 2       | 2021 |
| Tactical IdAM -- Soldier Authentication                                      | 2       | 2020 | 4       | 2021 |
| C5ISR/EW Modular Open Suite of Standards (CMOSS)                             | 4       | 2020 | 1       | 2021 |
| Protected Comms for Manned-unmanned teaming (MUM-T)                          | 1       | 2021 | 1       | 2023 |
| CMOSS Mounted Form Factor (CMFF)   | 2       | 2021 | 4       | 2024 |
| Non-traditional Waveforms  | 1       | 2021 | 4       | 2026 |
| Resilient Wideband SATCOM - Interference Cancellation                        | 3       | 2021 | 3       | 2022 |
| Aerial Tier Networking   | 2       | 2022 | 4       | 2023 |
| Secured Handheld on Assured Resilient Networks at the Tactical Edge (SHARE)  | 2       | 2022 | 2       | 2023 |
| Next Generation High Frequency (NGHF)  | 1       | 2023 | 1       | 2025 |
| Adaptive Network Optimization Narrowband                                     | 1       | 2024 | 4       | 2025 |
| Warrior Robust Enhanced Network (WREN) Enhancements                          | 1       | 2024 | 4       | 2025 |
| Autonomous Cyber   | 2       | 2024 | 4       | 2027 |
| Resilient Wideband SATCOM - OTM & ATH  | 2       | 2024 | 2       | 2026 |
| Dynamic Access & Control - Tactical (DAC-T)                                  | 1       | 2026 | 4       | 2027 |
| Relay for Air Non-LOS Ground Environment (RANGE)                             | 1       | 2026 | 4       | 2027 |
| High-Altitude: WGS Ka Band Surrogate (HAWKS)                                 | 2       | 2026 | 2       | 2027 |
| Predictive Intelligent Networking (PIN)                                      | 1       | 2027 | 4       | 2029 |
| Multi-Orbit Modem  | 1       | 2028 | 4       | 2028 |
| Network Obscuration  | 1       | 2028 | 4       | 2029 |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Army |  | <b>Date:</b> March 2023   |
| <b>Appropriation/Budget Activity</b><br>2040 / 4              | <b>R-1 Program Element (Number/Name)</b><br>PE 0604541A / <i>Unified Network Transport</i> | <b>Project (Number/Name)</b><br>BT5 / <i>Integrated Tactical Network/Enterprise Network</i> |

| Events                                       | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Industry Innovation Prototyping & Evaluation | 4       | 2020 | 1       | 2029 |

**Note**

Industry Innovation Prototyping and Evaluation projects are awarded following Technical Exchange Meetings (TEM) and are continuous activities; Network Cross Functional Team (N-CFT) and Program Executive Office Command, Control, Communications-Tactical (PEO C3T) will reach out to industry partners in order to assess and demonstrate the latest emerging technologies which will reduce capability gaps and provide rapid software/hardware insertions into Programs of Record.

Changes from PB23 Schedule:

- Science and Technology (S&T) projects are evaluated based on ongoing forums with the S&T community. N-CFT and PEO C3T track changes to the S&T efforts, including but not limited to - titles, descriptions, Technology Readiness Level (TRL), planned program transition and transfer agreement status. N-CFT and PEO C3T utilize this information to prioritize the S&T projects by fiscal year.
- The schedule for Non-traditional Waveforms (NTW) is inclusive of multiple sub-efforts concluding in FY 2026.
- CMOSS Mounted Form Factor (CMFF) 6.4 RDTE is projected to conclude in FY 2024.
- Aerial Tier Experimentation is renamed Aerial Tier Networking to better specify the nature of the effort.
- The schedule for Next Generation High Frequency (NGHF) is inclusive of multiple sub-efforts and continues in FY 2023.
- Adaptive Network Optimization Narrowband is identified as a 6.4 RTDE effort projected to begin in FY 2024.
- Warrior Robust Enhanced Network (WREN) Enhancements is identified as a 6.4 RTDE effort projected to begin in FY 2024.
- Dynamic Access & Control-Tactical (DAC-T) is identified as a 6.4 RDTE effort projected to begin in FY 2026.
- Relay for Air Non-LOS Ground Environment (RANGE) is identified as a 6.4 RDTE effort projected to begin in FY 2026.
- Predictive Intelligent Networking (PIN) is identified as a 6.4 RDTE effort projected to begin in FY 2027.
- Multi-Orbit Modem is identified as a 6.4 RDTE effort projected to begin in FY 2028.
- Network Obscuration is identified as a 6.4 RDTE effort projected to begin in FY 2028.
- The schedule for Industry Innovation Prototyping & Evaluation extends through FY 2028 to reflect the continuous nature of industry engagements.