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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Army **Date:** March 2024

|  |   |
|--|---|
| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> |
|--|---|

| COST (\$ in Millions)                       | Prior Years | FY 2023 | FY 2024 | FY 2025 Base | FY 2025 OCO | FY 2025 Total | FY 2026 | FY 2027 | FY 2028 | FY 2029 | Cost To Complete | Total Cost |
|---|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element                       | -           | 97.616  | 137.186 | 131.096      | -           | 131.096       | 74.090  | 5.665   | 5.672   | 5.729   | 0.000            | 457.054    |
| CK3: <i>TLS Echelon Above Brigade (EAB)</i> | -           | 29.657  | 66.469  | 116.333      | -           | 116.333       | 66.976  | 5.665   | 5.672   | 5.729   | 0.000            | 296.501    |
| EW6: <i>ARAT-TSS</i>                        | -           | 5.813   | 5.722   | -            | -           | -             | -       | -       | -       | -       | 0.000            | 11.535     |
| FJ5: <i>Terrestrial Layer System</i>        | -           | 62.146  | 64.995  | 14.763       | -           | 14.763        | 7.114   | -       | -       | -       | 0.000            | 149.018    |

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

This Program Element encompasses engineering and manufacturing development for tactical Electronic Warfare (EW) terrestrial (ground) employment applications. The systems under this program provide the Army with the capability to detect, identify, locate, collect/process, report, and engage (disrupt, degrade or deny) hostile forces to prevent their effective use of communications & non-communications networks, counter-mortar/counter-battery radars, surveillance radars, electronically fused munitions and other enemy threats using the Electro-Magnetic Spectrum (EMS). A portion of this funding line is a key enabler of the Army Modernization Priorities in support of Terrestrial Layer System. The remaining portion enables the reprogramming of mission software in response to changes in threat signatures for the Army Reprogramming Analysis Team (ARAT).

Project CK3 supports the development of Terrestrial Layer System Echelons Above Brigade (TLS EAB). TLS EAB will provide Signals Intelligence (SIGINT), Electronic Warfare (EW), and Cyber-enabling integrated solution to support Multi Domain Battle capability gaps and provide Force Protection, Situational Development, and Information Superiority to Army Divisions, Corps and Multi-Domain Task Forces. TLS EAB- Priority #2 Enablers - Supported/endorsed by Network Cross Functional Team (CFT), Assured Position Navigation and Timing (APNT)/Space CFT, Long Range Precision Fire (LRPF) CFT. Enables integration, interoperability and force modernization with emerging capabilities in support of Multi-Domain Task Forces and Operational Needs Statements.

Project EW6 provides for the Army Reprogramming Analysis Team (ARAT), a Department of the Army established project to develop techniques, methods, tools and architecture to reprogram mission software embedded in Army EW systems, Force Protection Systems (FPS), and Target Sensing Systems (TSS) in response to changes in threat signatures. ARAT Research and Development enables continuous development of: 1) automated threat analysis tools to rapidly detect (flag) threat changes within intelligence systems, 2) tools to minimize the time to develop EW Mission Software and Products (MSP) for both air and ground EW systems, 3) tools and technology to minimize the time required to test and validate MSPs, 4) improved communications conduits to transmit mission software changes to field users, and 5) enhanced mission-software uploading tools. These efforts allow for rapid threat analysis, simulation, mission software development, distribution and uploading of mission software changes directly to the supported Soldier in the field. The ARAT project will develop, test and equip an Army-wide infrastructure capable of rapidly reprogramming electronic combat software embedded in offensive and defensive weapon systems.

Project FJ5 supports the development of the Middle Tier Acquisition, Terrestrial Layer System Brigade Combat Team (TLS BCT), an effort that initiated in FY 2020 (funded with PE 0604021A / AW7). TLS BCT will provide Signals Intelligence (SIGINT), Electronic Warfare (EW), and Cyber-enabling integrated solution to support Multi Domain Battle capability gaps and provide Force Protection, Situational Development, and Information Superiority in support of Multi-Domain Task Forces and

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Army | <b>Date:</b> March 2024 |
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| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 5: System Development &amp; Demonstration (SDD)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> |
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Operational Needs Statements. TLS BCT will equip mounted formations with vehicles organic to their formations (SBCT- Stryker MEV DVAH1, ABCT- AMPV) and a manpack solution for IBCTs. TLS BCT - MDO Relevancy: Priority #2 Enablers - Supported/endorsed by Network Cross Functional Team (CFT), Assured Position Navigation and Timing (APNT)/Space CFT, Long Range Precision Fire (LRPF) CFT.

FY 2025 funds the Terrestrial Layer System Echelons Above Brigade (TLS EAB) efforts (Project CK3) and Terrestrial Layer System Brigade Combat Team (TLS BCT) efforts (Project FJ5).

The total cost of the TLS Brigade Combat Team (BCT) Middle Tier of Acquisition effort is \$269.5 million RDT&E from FY20 to FY25.

The total cost of the TLS Echelon Above Brigade (EAB) Middle Tier of Acquisition effort is \$304.5 million RDTE from FY22 to FY26. The remainder of the TLS EAB MTA is fully funded across the Future Years Defense Program.

| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025 Base</b> | <b>FY 2025 OCO</b> | <b>FY 2025 Total</b> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 99.938         | 137.186        | 48.689              | -                  | 48.689               |
| Current President's Budget                        | 97.616         | 137.186        | 131.096             | -                  | 131.096              |
| Total Adjustments                                 | -2.322         | 0.000          | 82.407              | -                  | 82.407               |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -2.322         | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -              | -              |                     |                    |                      |
| • Adjustments to Budget Years                     | -              | -              | 82.407              | -                  | 82.407               |

**Change Summary Explanation**

TLS BCT, Project FJ5, increase of \$14.763 million in FY 2025 to complete TLS BCT AMPV Variant prototypes and execute the TLS BCT Operational Testing.  
 TLS EAB, Project CK3, increase of \$73.496 million in FY 2025 to complete TLS EAB Prototype development and operational demonstration.  
 ARAT, Project EW6, decrease of \$5.852 million in FY 2025 due to realignment of funding to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT))

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army |                    |                |                |                     |   |                      |                |                |  | <b>Date:</b> March 2024 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 5                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> |                      |                |                | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025 Base</b> | <b>FY 2025 OCO</b>  | <b>FY 2025 Total</b> | <b>FY 2026</b> | <b>FY 2027</b> | <b>FY 2028</b>   | <b>FY 2029</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| CK3: <i>TLS Echelon Above Brigade (EAB)</i>                        | -                  | 29.657         | 66.469         | 116.333             | -   | 116.333              | 66.976         | 5.665          | 5.672  | 5.729                   | 0.000                   | 296.501           |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -  | -                       |                         |                   |

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

This funding line is a key enabler of the Army Modernization Priorities in support of Terrestrial Layer System Echelons Above Brigade (TLS EAB). The TLS EAB will provide Army Divisions, Corps and Multi-Domain Task Forces (MDTF) extended range, integrated full spectrum Signals Intelligence (SIGINT), Electronic Warfare (EW), and Cyber-enabling non-kinetic offensive capabilities to support large scale combat operations. TLS EAB's information Superiority provides Indications and Warnings, Force Protection and Situational Awareness to influence the commander's decision cycle, improve targeting timeliness and accuracy, and provides electronic attack and offensive cyber warfare options to deny, degrade, disrupt, or otherwise manipulate the targeted force. TLS EAB employs technologically advanced systems with a modular open-system approach for multiple configurations that can be efficiently sustained and effectively upgraded to provide capabilities against changing near peer and emerging threats to address joint all domain capability gaps. TLS EAB- Priority #2 Enablers - Supported/endorsed by Network Cross Functional Team (CFT), Assured Position, Navigation and Timing (PNT)/Space CFT, Long Range Precision Fire CFT. Enables integration, interoperability and force modernization with emerging capabilities in support of Multi-Domain Task Forces and Operational Needs Statements.

The total cost of the TLS Echelon Above Brigade (EAB) Middle Tier of Acquisition effort is \$304.5 million RDTE from FY22 to FY26. The remainder of the TLS EAB MTA is fully funded across the Future Years Defense Program.

Justification:  
FY25 RDT&E funds in the amount of \$116.333 million will fund TLS EAB Foundational System Development, Interoperability and Advanced Threat Prototyping Activities, Test Activities and Technical/Program Management.

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

|  | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> TLS EAB Prototyping  | 23.887         | 33.052         | 90.515         |
| <b>Description:</b> TLS Echelons Above Brigade (EAB) is fulfilling distinct capabilities to support Division, Corps and Multi-Domain Task Force commanders. TLS EAB will be integrated onto different prime mover platforms than TLS Brigade Combat Team (BCT) and will employ different technologies and hardware to fulfill the unique extended range capabilities to support large scale combat operations. |                |                |                |
| <b>FY 2024 Plans:</b>  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army   |   | <b>Date:</b> March 2024  |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 5   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2023</b>   | <b>FY 2024</b> | <b>FY 2025</b> |
| <p>In FY24, TLS EAB will continue System Level Prototypes development, platform integration, supporting technical system testing and critical soldier touchpoints. (Full-scale Phase 2 of the OTA)</p> <p><b>FY 2025 Plans:</b><br/>                     TLS EAB will continue the development of System Level Prototype Variants, platform integration, supporting technical system testing and critical soldier touchpoints. Develop full-scale Phase 2 Prototypes and deliver initial prototypes.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>                     Fiscal Year (FY) 2025 funding Increase of \$57.463 million due to increase of TLS EAB full scale prototype variant development and delivery of System Level Prototypes.</p>  |   |  |                |                |
| <p><b>Title:</b> Demonstration, Experimentation, and Prototyping</p> <p><b>Description:</b> Funds will provide for demonstration, experimentation, and prototyping for TLS EAB.</p> <p><b>FY 2024 Plans:</b><br/>                     In FY24, planning includes participation in key events to continue to inform requirement (CDD)/Tactic, Techniques and Procedures (TTP).</p> <p><b>FY 2025 Plans:</b><br/>                     Planning includes participation in TLS EAB Multi-Domain Task Forces (MDTF) and Corps variant Prototype Developmental Demonstrations (PDD) touchpoints, Critical vulnerability assessments, and Army-led experimental events to inform the development of requirements and enhance the utilization of TLS EAB.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>                     Fiscal Year (FY) 2025 funding Increase of \$10.082 million due to increase of the TLS EAB PDD touchpoints, experimentation, and full-scale prototype development.</p> |   | 3.074  | 0.500          | 10.582         |
| <p><b>Title:</b> Technical/Program Management</p> <p><b>Description:</b> TLS EAB Technical/Program Management.</p> <p><b>FY 2024 Plans:</b><br/>                     FY 2024 technical engineering and program management support for TLS EAB Full scale Phase 2 Prototype development.</p> <p><b>FY 2025 Plans:</b><br/>                     FY 2025 technical engineering and program management support for TLS EAB full scale prototype variant development, interoperability and advanced threat prototyping activities, and delivery of system level prototypes.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p>   |   | 2.696  | 6.618          | 9.153          |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army   |   | <b>Date:</b> March 2024  |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 5   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2023</b>   | <b>FY 2024</b> | <b>FY 2025</b> |
| Fiscal Year (FY) 2025 funding increase of \$2.535 million due to TLS EAB technical engineering support of the PDD touchpoints, experimentation and delivery of the initial prototypes.   |   |  |                |                |
| <b>Title:</b> Second Variant Non-Recurring Engineering (NRE)<br><b>Description:</b> Variant Non-Recurring Engineering (NRE) for TLS EAB.<br><br><b>FY 2024 Plans:</b><br>In FY24, TLS EAB will have additional variant for non-recurring engineering.<br><br><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br>Fiscal Year (FY) 2025 funding decrease of \$21.289 million due to realignment of NRE activities to the TLS EAB prototyping planned program to complete the additional prototypes.   |   | -  | 21.289         | -              |
| <b>Title:</b> Prototype Test Activities<br><b>Description:</b> Prototyping Test Activities for TLS EAB.<br><br><b>FY 2024 Plans:</b><br>In FY24, TLS EAB will support the completion and additional prototype articles and increase vendor test events to refine system requirements and retrieve desired characteristics.<br><br><b>FY 2025 Plans:</b><br>Continues testing and demonstration activities of additional TLS-EAB prototype components and variants to enhance system requirements and capabilities.<br><br><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br>Fiscal Year (FY) 2025 funding increase of \$1.073 million for TLS EAB Initial prototype delivery will require increased support for testing events and demonstration activities. |   | -  | 5.010          | 6.083          |
| <b>Accomplishments/Planned Programs Subtotals</b>  |   | 29.657   | 66.469         | 116.333        |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>   |   |  |                |                |
| N/A  |   |  |                |                |
| <b>Remarks</b>   |   |  |                |                |
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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army |   | <b>Date:</b> March 2024  |
| <b>Appropriation/Budget Activity</b><br>2040 / 5                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |

**D. Acquisition Strategy**

A competitive acquisition approach was utilized for TLS EAB development. TLS EAB is using Middle Tier Acquisition (MTA) approach to rapidly deliver an integrated ground intelligence, electronic warfare and cyber capability on multiple platform types to align with maneuver forces. The TLS EAB will leverage authorities to accelerate delivery through rapid prototyping with rapid fielding authorities or MCA production decision/phase.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army** **Date:** March 2024

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| <b>Appropriation/Budget Activity</b><br>2040 / 5 | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |
|--|---|--|

| <b>Management Services (\$ in Millions)</b> |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Technical/Program Management                | C/CPFF                 | MAG Aerospace : Aberdeen, MD   | 1.961       | 2.696   | Jun 2023   | 6.618   | Jul 2024   | 9.153        | Jun 2025   | -           |            | 9.153         | 0.000            | 20.428     | -                        |
| <b>Subtotal</b>                             |                        |                                | 1.961       | 2.696   |            | 6.618   |            | 9.153        |            | -           |            | 9.153         | 0.000            | 20.428     | N/A                      |

**Remarks**  
Includes technical engineering and program management support from competitive contract for Systems Engineering and Technical Assistance (SETA).

| <b>Product Development (\$ in Millions)</b>                 |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| TLS EAB Foundational System Development                     | C/CPFF                 | Lockheed Martin : Syracuse, NY | 14.642      | 21.849  | Jun 2023   | 33.052  | May 2024   | 85.177       | May 2025   | -           |            | 85.177        | 0.000            | 154.720    | -                        |
| Interoperability and Advanced Threat Prototyping Activities | IA                     | Various : Aberdeen, MD         | 0.896       | 3.074   | Dec 2023   | 0.500   | Apr 2024   | 10.582       | Apr 2025   | -           |            | 10.582        | 0.000            | 15.052     | -                        |
| Additional Variant Non-Recurring Engineering (NRE)          | IA                     | Various : Aberdeen, MD         | -           | -       |            | 21.289  | Jun 2024   | -            |            | -           |            | -             | 0.000            | 21.289     | -                        |
| <b>Subtotal</b>   |                        |                                | 15.538      | 24.923  |            | 54.841  |            | 95.759       |            | -           |            | 95.759        | 0.000            | 191.061    | N/A                      |

**Remarks**  
Competitive OTA for development and integration. Funding supports continued Interoperability and Advanced Threat Prototyping Activities for Terrestrial Layer System Echelons Above Brigade (TLS EAB) via a combination of various support contracts and Government support.

| <b>Support (\$ in Millions)</b>    |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Engineering and Technical Services | IA                     | Various : Aberdeen, MD         | 2.011       | 2.038   | Jun 2023   | -       |            | 5.338        | Jun 2025   | -           |            | 5.338         | 0.000            | 9.387      | -                        |
| <b>Subtotal</b>                    |                        |                                | 2.011       | 2.038   |            | -       |            | 5.338        |            | -           |            | 5.338         | 0.000            | 9.387      | N/A                      |

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army** **Date:** March 2024

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| <b>Appropriation/Budget Activity</b><br>2040 / 5 | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |
|--|---|--|

| <b>Support (\$ in Millions)</b> |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |

**Remarks**  
Matrix Government support to Terrestrial Layer System Echelons Above Brigade (TLS EAB) program.

| <b>Test and Evaluation (\$ in Millions)</b> |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Test Events                                 | IA                     | Various : Aberdeen, MD         | -           | -       |            | 5.010   | May 2024   | 6.083        | May 2025   | -           |            | 6.083         | 0.000            | 11.093     | -                        |
| <b>Subtotal</b>                             |                        |                                | -           | -       |            | 5.010   |            | 6.083        |            | -           |            | 6.083         | 0.000            | 11.093     | N/A                      |

**Remarks**  
Test & Evaluation efforts will be accomplished via a combination of various support contracts and Government support.

|                            | Prior Years | FY 2023 | FY 2024 | FY 2025 Base | FY 2025 OCO | FY 2025 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| <b>Project Cost Totals</b> | 19.510      | 29.657  | 66.469  | 116.333      | -           | 116.333       | 0.000            | 231.969    | N/A                      |

**Remarks**

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Army</b> |   |  | <b>Date:</b> March 2024 |
| <b>Appropriation/Budget Activity</b><br>2040 / 5             | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |                         |

| Event Name                               | FY 2023    |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   | FY 2029 |   |   |   |
|--|------------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|  | 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 |
| Development, prototyping and integration | [Redacted] |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| TLS EAB Prototype testing                | [Redacted] |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| TLS EAB Production and Fielding          |            |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| First Unit Issued (FUI)                  |            |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army |   | <b>Date:</b> March 2024  |
| <b>Appropriation/Budget Activity</b><br>2040 / 5              | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>CK3 / <i>TLS Echelon Above Brigade (EAB)</i> |

Schedule Details

| Events                                   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Development, prototyping and integration | 4       | 2022 | 4       | 2026 |
| TLS EAB Prototype testing                | 3       | 2024 | 4       | 2026 |
| TLS EAB Production and Fielding          | 3       | 2026 | 4       | 2030 |
| First Unit Issued (FUI)                  | 3       | 2026 | 4       | 2026 |

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|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|--|-------------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army |                    |                |                |                     |   |                      |                |                |  | <b>Date:</b> March 2024 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 5                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> |                      |                |                | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025 Base</b> | <b>FY 2025 OCO</b>  | <b>FY 2025 Total</b> | <b>FY 2026</b> | <b>FY 2027</b> | <b>FY 2028</b>                                 | <b>FY 2029</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| EW6: ARAT-TSS  | -                  | 5.813          | 5.722          | -                   | -   | -                    | -              | -              | -  | -                       | 0.000                   | 11.535            |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -  | -                       |                         |                   |

**Note**

Funding is realigned to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT) in FY25.

The Army Reprogramming Analysis Team (ARAT) is a Department of the Army established program to develop techniques, methods, tools, and architecture to rapidly reprogram mission software embedded in Army Electronic Warfare (EW) Force Protection Systems (FPS) in response to changes in threat signatures. The regulatory guidance directing this mission is contained in Army Regulation (AR) 525-15, AR 525-22, and AR 95-1. The ARAT develops integrated technical solutions required to counter increasingly sophisticated EW Signal threats to US Forces. The ARAT mission software reprogramming infrastructure supports the Army Campaign Plan to provide the Regionally Aligned Forces tactical Commander timely rapid-reprogramming capability of EW systems with mission software. The ARAT mission responsibility is to develop and distribute Mission Software and Products to forward deployed combat forces. ARAT identifies and analyzes worldwide threat signature changes which affect EW systems; determines the impact of observed Signal Intelligence (SIGINT) signature changes; rapidly develops new mission software to adapt friendly systems to detect and defeat enemy threats to U.S. Army ground and air platforms; disseminates the Mission Software and Products to forward deployed forces, and provides government developed tools and software to upload new mission software into the affected EW systems.

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

Current military operations are conducted in a rapidly changing threat environment, where Improvised Explosive Devices (IEDs), Infra Red (IR) man-portable air defense systems (MANPADS) seekers, radar guided surface-to-air-missiles (SAM), laser guided weapons, anti-helicopter mines, and targeting sensors are proliferating and evolving. Integrated solutions are required to counter increasingly sophisticated EW threats. The ARAT reprogramming infrastructure supports the tactical Commander by providing timely rapid reprogramming of mission software and information dissemination for Army supported, Joint and allied services. ARAT supports integrated reprogramming of target acquisition, target engagement, vehicle survivability, and Aircraft Survivability Equipment (ASE). ARAT rapid-reprogramming infrastructure supports tactical requirements for deployed aircraft and ground-based (e.g. Counter Radio-Controlled Improvised Explosive Device (CREW)) survivability systems. ARAT identifies and analyzes threat signature changes which affect EW systems; determines the impact of observed signature changes; develops new mission software to adapt the system to the changes; disseminates the mission software; and provides methods to upload the new mission software into the affected EW systems. Each element within the ARAT infrastructure plays a specific role within the program's rapid reprogramming process, providing the Soldier with the capability to install mission and target identification software at the lowest possible level, thus maximizing flexibility for tactical commanders. ARAT participates in the operational and developmental test design of Army EW systems, and supports Joint Service Reprogramming Exercises in all theaters. ARAT Research and Development enables continuous development of: 1) automated threat analysis tools to rapidly detect (flag) threat changes within the intelligence system, 2) tools to minimize the time to develop Mission Software and Products (MSP), 3) tools and technology to minimize the time required to test and validate MSPs, 4) improved communications conduits to rapidly transmit mission software to upload into supported EW systems. These efforts allow for rapid threat analysis, threat modeling and simulation, mission software development and testing, distribution and uploading of mission software directly to the supported Soldier in the field.

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army  |   | <b>Date:</b> March 2024                        |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 5  | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>   |   | <b>FY 2023</b>                                 | <b>FY 2024</b> | <b>FY 2025</b> |
| <p><b>Title:</b> Keeping Pace with the Enemy and Technology</p> <p><b>Description:</b> This effort focuses on developing a capability for the Government to rapidly develop and distribute organic mission software solutions for multiple EW systems. The Army must continually modernize and enhance software tools, hardware modernization, and processes counter enemy technology. ARAT EW6 executes Research, Development, Test, and Evaluation (RDTE) funding to provide an organic Army capability for this organization to rapidly develop, test and distribute mission software solutions for forward deployed combat forces.</p> <p><b>FY 2024 Plans:</b><br/>ARAT plans to execute funding to enhance current software development and test infrastructure. ARAT will modernize to include threat simulations utilizing Software Defined Radios (SDR). ARAT EW6 plan to integrate Software Defined Radios into the program's software development and test infrastructure to enhance the Army's ability to replicate sophisticated peer and near peer Electronic Warfare systems. The modernized Software Defined Radios once integrated into the laboratory will allow for expedited development and testing of mission software to detect and defeat enemy Electronic Warfare systems.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Decreased funding due to realignment of funding to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT))</p> |   | 2.721  | 2.703          | -              |
| <p><b>Title:</b> Infrastructure Improvements Multispectral</p> <p><b>Description:</b> This effort focuses on enhancing the Army's Multispectral Missile Warning System (MWS) software sustainment infrastructure. With the worldwide proliferation of MANPADS the Army must have the capability to rapidly analyze and develop mission software solutions that detect and counter MANPADS to defend Army Aviation platforms against this lethal threat.</p> <p><b>FY 2024 Plans:</b><br/>ARAT will continue infrastructure enhancements to include preparations for integrating new ground Electronic Warfare systems into the ARAT Development and Testing Enterprise in support of migrating to a multispectral capability to incorporate Multi-Domain Operations.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Decreased funding due to realignment of funding to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT))</p>  |   | 0.747  | 0.719          | -              |
| <p><b>Title:</b> Infrastructure Improvement Radio Frequency General</p> <p><b>Description:</b> This effort focuses on enhancing the Army's Radio Frequency (RF) EW system Mission Software and Products (MSP) development and distribution infrastructure. The Army must fight in a contested and congested EW environment. Mission</p>   |   | 1.289  | 1.271          | -              |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army   |   | <b>Date:</b> March 2024                        |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 5   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2023</b>                                 | <b>FY 2024</b> | <b>FY 2025</b> |
| software solutions to defend against RF threats must be rapidly developed, tested, and distributed to Soldiers on an ever changing battlefield.  |   |  |                |                |
| <p><b>FY 2024 Plans:</b><br/>ARAT will continue with modernization efforts to enhance Radio Frequency simulations of sophisticated peer and near peer threat systems. The modernization efforts will provide the Army the ability to rapidly program aircraft Radar Warning Receivers (RWR) to accurately detect and defeat enemy radar guided missiles directed against Army Aviation platforms. ARAT EW6 will leverage modernized Software Defined Radio technologies that will provide more accurate representation of enemy Electronic Warfare systems.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Decreased funding due to realignment of funding to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT))</p>  |   |  |                |                |
| <p><b>Title:</b> Threat Flagging and Mission Data Set Reprogramming Tool Development</p> <p><b>Description:</b> This effort focuses on enhancing the Army's capability to monitor changes in enemy Electronic Warfare systems that affect system performance of Army detection, declaration, and countermeasure Electronic Warfare systems onboard both air and ground platforms. The enemy is continuously developing or modifying it's Electronic Warfare systems. For Army platforms to have protection against enemy systems it must have a robust capability to immediately detect changes in threat system performance and rapidly develop, test, and distribute a mission software solution that counters the threat. This effort will enhance the Army's capability bridge detection of a change in enemy threat and the rapid development of Mission Software and Products.</p> <p><b>FY 2024 Plans:</b><br/>ARAT EW6 will continue to enhance threat change detection capabilities and tailor the flagging model to system specific to Electronic Warfare systems on Blackhawk and Apache helicopters. Threat change detection provides the Army the capability to rapidly assess parametric changes in enemy Radio Frequency radar systems. The ability to detect changes in enemy Radio Frequency systems increases the accuracy of mission software for Radar Warning systems on Army Aviation platforms.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Decreased funding due to realignment of funding to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT))</p> |   | 1.056  | 1.029          | -              |
| <b>Accomplishments/Planned Programs Subtotals</b>  |   | 5.813  | 5.722          | -              |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>   |   |  |                |                |
| N/A  |   |  |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army |   | <b>Date:</b> March 2024                        |
| <b>Appropriation/Budget Activity</b><br>2040 / 5                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |

**C. Other Program Funding Summary (\$ in Millions)**

**Remarks**

ARAT has no other Program funding.

**D. Acquisition Strategy**

The efforts to be funded in this project will require a combination of systems specific and high-tech knowledge. The contractual services portion for the project will be obtained from both the Communications-Electronics Command (CECOM) Software Engineering Center (SEC) competitive omnibus and the Program Executive Office - Simulation, Training and Instrumentation (PEO STRI), GSA SBIR, and the Defense Technical Intelligence Center (DTIC) high tech contracts.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army |                        |   |             |   |            |         |            |                       |            |             |            | Date: March 2024 |                  |            |                          |  |
|--|------------------------|---|-------------|---|------------|---------|------------|-----------------------|------------|-------------|------------|------------------|------------------|------------|--------------------------|--|
| Appropriation/Budget Activity                          |                        |   |             | R-1 Program Element (Number/Name)                   |            |         |            | Project (Number/Name) |            |             |            |                  |                  |            |                          |  |
| 2040 / 5   |                        |   |             | PE 0304270A / <i>Electronic Warfare Development</i> |            |         |            | EW6 / ARAT-TSS        |            |             |            |                  |                  |            |                          |  |
| <b>Product Development (\$ in Millions)</b>            |                        |   |             | FY 2023   |            | FY 2024 |            | FY 2025 Base          |            | FY 2025 OCO |            | FY 2025 Total    |                  |            |                          |  |
| Cost Category Item                                     | Contract Method & Type | Performing Activity & Location                    | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                  | Award Date | Cost        | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |  |
| USG Labor  | Various                | CECOM SEC :<br>Various Locations                  | 5.632       | 0.596   |            | 0.596   |            | -                     |            | -           |            | -                | Continuing       | Continuing | Continuing               |  |
| Travel   | Various                | CECOM SEC :<br>Various Locations                  | 1.182       | 0.096   |            | 0.098   |            | -                     |            | -           |            | -                | Continuing       | Continuing | Continuing               |  |
| <b>Subtotal</b>  |                        |   | 6.814       | 0.692   |            | 0.694   |            | -                     |            | -           |            | -                | Continuing       | Continuing | N/A                      |  |
| <b>Support (\$ in Millions)</b>                        |                        |   |             | FY 2023   |            | FY 2024 |            | FY 2025 Base          |            | FY 2025 OCO |            | FY 2025 Total    |                  |            |                          |  |
| Cost Category Item                                     | Contract Method & Type | Performing Activity & Location                    | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                  | Award Date | Cost        | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |  |
| Development Support                                    | Various                | CECOM SEC,<br>RDECOM, DTIC :<br>Various Locations | 60.246      | 5.121   | Apr 2023   | 5.028   | Mar 2024   | -                     |            | -           |            | -                | Continuing       | Continuing | Continuing               |  |
| <b>Subtotal</b>  |                        |   | 60.246      | 5.121   |            | 5.028   |            | -                     |            | -           |            | -                | Continuing       | Continuing | N/A                      |  |
| <b>Test and Evaluation (\$ in Millions)</b>            |                        |   |             | FY 2023   |            | FY 2024 |            | FY 2025 Base          |            | FY 2025 OCO |            | FY 2025 Total    |                  |            |                          |  |
| Cost Category Item                                     | Contract Method & Type | Performing Activity & Location                    | Prior Years | Cost  | Award Date | Cost    | Award Date | Cost                  | Award Date | Cost        | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |  |
| SIGINT Upgrades  | TBD                    | TBD : TBD   | -           | -   |            | -       |            | 0.000                 |            | -           |            | 0.000            | -                | -          | -                        |  |
| <b>Subtotal</b>  |                        |   | -           | -   |            | -       |            | 0.000                 |            | -           |            | 0.000            | -                | -          | N/A                      |  |
| <b>Project Cost Totals</b>                             |                        |   | 67.060      | 5.813   |            | 5.722   |            | 0.000                 |            | -           |            | 0.000            | Continuing       | Continuing | N/A                      |  |
| <b>Remarks</b>   |                        |   |             |   |            |         |            |                       |            |             |            |                  |                  |            |                          |  |

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 Army |   | <b>Date:</b> March 2024                        |
| <b>Appropriation/Budget Activity</b><br>2040 / 5             | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |

|  | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   | FY 2021 |   |   |   | FY 2022 |   |   |   |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|  | 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 |

Software Development Enhancement Support  
(see notes in Schedule Detail)

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|  | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   | FY 2029 |   |   |   |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|  | 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 |

Software Development Enhancement Support  
(see notes in Schedule Detail)

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army |   | <b>Date:</b> March 2024                        |
| <b>Appropriation/Budget Activity</b><br>2040 / 5              | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>EW6 / ARAT-TSS |

Schedule Details

| Events  | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| Software Development Enhancement Support (see notes in Schedule Detail) | 1       | 2015 | 4       | 2021 |

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|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|---|-------------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army |                    |                |                |                     |   |                      |                |                |   | <b>Date:</b> March 2024 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 5                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> |                      |                |                | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025 Base</b> | <b>FY 2025 OCO</b>  | <b>FY 2025 Total</b> | <b>FY 2026</b> | <b>FY 2027</b> | <b>FY 2028</b>  | <b>FY 2029</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| FJ5: <i>Terrestrial Layer System</i>                               | -                  | 62.146         | 64.995         | 14.763              | -   | 14.763               | 7.114          | -              | -   | -                       | 0.000                   | 149.018           |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -   | -                       |                         |                   |

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

This funding line is a key enabler of the Army Modernization Priorities in support of Terrestrial Layer System Brigade Combat Team (TLS BCT), a Middle Tier of Acquisition program, which provides Army maneuver forces integrated full spectrum Signals Intelligence (SIGINT), Electronic Warfare (EW), and Cyber-enabling non-kinetic offensive operation options to Brigade Combat Team (BCT) commanders. TLS BCT's information Superiority provides Indications and Warnings, Force Protection and Situational Awareness to influence the commander's decision cycle, improve targeting timeliness and accuracy, and provide the maneuver commander with electronic attack and offensive cyber warfare options to deny, degrade, disrupt, or otherwise manipulate the targeted force. TLS BCT employs technologically advanced systems with a modular open-system approach for multiple configurations that can be efficiently sustained and effectively upgraded to provide capabilities against changing near peer and emerging threats to address multi-domain capability gaps. TLS BCT enables integration, interoperability and force modernization with emerging capabilities in support of Multi-Domain Task Forces and Operational Needs Statements. TLS BCT will equip mounted formations with vehicles organic to their formations (SBCT- Stryker MEV DVAH1, ABCT- AMPV) and a manpack solution for IBCTs. TLS BCT - MDO Relevancy: Priority #2 Enablers - Supported/endorsed by Network Cross Functional Team (CFT), Assured Position Navigation and Timing (APNT)/Space CFT, Long Range Precision Fire (LRPF) CFT.

The total cost of the TLS Brigade Combat Team (BCT) Middle Tier of Acquisition effort is \$269.5 million RDT&E from FY20 to FY25.

Justification:  
FY 2025 total program amount of \$14.763 million will fund technical support, vehicle integration and system development, new signal threat integration/signal relevancy, and test events.

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

|  | <b>FY 2023</b> | <b>FY 2024</b> | <b>FY 2025</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> Technical / Program Management   | 3.514          | 3.909          | 1.329          |
| <b>Description:</b> Funds will provide for technical engineering and program management.   |                |                |                |
| <b>FY 2024 Plans:</b><br>FY 2024 TLS BCT technical engineering and program management support the development and completion of additional Stryker MEV DVAH1 prototypes, completion of ABCT- AMPV prototypes and continued development of manpack solution for IBCT. |                |                |                |
| <b>FY 2025 Plans:</b><br>FY 2025 TLS BCT technical engineering and program management support the development and completion of ABCT- AMPV prototypes and continued development of manpack solution for IBCT.  |                |                |                |
| <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>   |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army   |   | <b>Date:</b> March 2024   |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 5   | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2023</b>  | <b>FY 2024</b> | <b>FY 2025</b> |
| Fiscal Year (FY) 2025 funding decrease of \$2.580 million due to completion of the Stryker variant development.  |   |   |                |                |
| <p><b>Title:</b> Platform Integration and System Development</p> <p><b>Description:</b> Development of System Level Prototypes and integration of TLS BCT mission equipment onto vehicle platforms that will enable TLS BCT platforms to match vehicle platforms organic to the unit.</p> <p><b>FY 2024 Plans:</b><br/>Continued development of System Level Prototypes and integration of TLS BCT mission equipment to Stryker, Manpack, AMPV and IBCT mounted variants.</p> <p><b>FY 2025 Plans:</b><br/>Complete development of System Level Prototypes and integration of TLS BCT mission equipment to Manpack and AMPV variants.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Fiscal Year (FY) 2025 funding Decrease of \$51.908 million due to completion of Stryker variant.</p> |   | 48.666  | 53.500         | 1.592          |
| <p><b>Title:</b> Test Events</p> <p><b>Description:</b> System and Operational test events</p> <p><b>FY 2024 Plans:</b><br/>FY 2024 Continued testing of TLS BCT systems: Stryker MEV DVAH1 prototypes and Manpack solutions testing and refinement to achieve desired characteristics.</p> <p><b>FY 2025 Plans:</b><br/>Continues testing of TLS BCT systems: Stryker MEV DVAH1 prototypes, AMPV variant and Manpack solution testing to include, but not limited to Operational Assessments and Operational Demonstrations.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b><br/>Fiscal Year (FY) 2025 funding Increase of \$4.314 million due to increase operational tests of multiple variants.</p>  |   | 5.548   | 5.786          | 10.100         |
| <p><b>Title:</b> New signal threat integration and signal relevancy</p> <p><b>FY 2024 Plans:</b><br/>Continues, but is not limited to, development and evaluation of Next Generation SIGINT, EA and Cyber capabilities into the TLS BCT baseline to increase signal processing capabilities for near peer and emerging enemy threat signals in support of Multi-Domain Task Forces and Operational Needs Statements.</p> <p><b>FY 2025 Plans:</b></p>  |   | 4.418   | 1.800          | 1.742          |

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Army **Date:** March 2024

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| <b>Appropriation/Budget Activity</b><br>2040 / 5 | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |
|--|---|---|

| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  | FY 2023 | FY 2024 | FY 2025 |
|--|---------|---------|---------|
| Continues, development and evaluation of Next Generation SIGINT, EA and Cyber capabilities into the TLS BCT baseline to increase signal processing capabilities for near peer and emerging enemy threat signals. |         |         |         |
| <b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b><br>Fiscal Year (FY) 2025 funding Decrease of \$0.058 million in FY25 due to efficiencies gained from portfolio approach to software relevancy.     |         |         |         |
| <b>Accomplishments/Planned Programs Subtotals</b>  | 62.146  | 64.995  | 14.763  |

| <b>C. Other Program Funding Summary (\$ in Millions)</b> |                |                |                               |                              |                                |                |                |                |                |                                   |                   |
|--|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| <u>Line Item</u>   | <u>FY 2023</u> | <u>FY 2024</u> | <u>FY 2025</u><br><u>Base</u> | <u>FY 2025</u><br><u>OCO</u> | <u>FY 2025</u><br><u>Total</u> | <u>FY 2026</u> | <u>FY 2027</u> | <u>FY 2028</u> | <u>FY 2029</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • B97610: <i>TERRESTRIAL LAYER SYSTEM BCT</i>            | 8.382          | 84.627         | 95.433                        | -                            | 95.433                         | 93.118         | 97.084         | 113.780        | 118.958        | 0.000                             | 611.382           |

**Remarks**

**D. Acquisition Strategy**  
The TLS BCT program will use a tailored competitive acquisition approach to rapidly deliver an integrated ground intelligence, electronic warfare and cyber capability on multiple platform types to align with maneuver forces. The TLS BCT program will leverage authorities including, but not limited to Middle Tier of Acquisition to accelerate delivery through rapid prototyping with rapid fielding authorities or a MCA Production Phase.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army** **Date:** March 2024

|  |   |   |
|--|---|---|
| <b>Appropriation/Budget Activity</b><br>2040 / 5 | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |
|--|---|---|

| <b>Management Services (\$ in Millions)</b> |                        |                                      |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Technical / Program Management              | Various                | MITRE & MAG Aerospace : Aberdeen, MD | 16.534      | 3.514   | Feb 2023   | 3.909   | Feb 2024   | 1.329        | Feb 2025   | -           |            | 1.329         | 0.000            | 25.286     | -                        |
| <b>Subtotal</b>                             |                        |                                      | 16.534      | 3.514   |            | 3.909   |            | 1.329        |            | -           |            | 1.329         | 0.000            | 25.286     | N/A                      |

**Remarks**  
Efforts include FFRDC support contract to continue developing and managing the Signals processing and compute environment as well as from competitive contract for Systems Engineering and Technical Assistance (SETA) support.

| <b>Product Development (\$ in Millions)</b>        |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Vehicle Integration and System Development         | C/CPFF                 | Lockheed Martin : Syracuse, NY | 67.003      | 48.666  | Dec 2022   | 53.500  | Dec 2023   | 1.592        | Dec 2024   | -           |            | 1.592         | 0.000            | 170.761    | -                        |
| New signal threat integration and signal relevancy | C/CPFF                 | Lockheed Martin : Syracuse, NY | 1.941       | 4.418   | Jan 2023   | 1.800   | Jan 2024   | 10.100       | Jan 2025   | -           |            | 10.100        | 0.000            | 18.259     | -                        |
| <b>Subtotal</b>                                    |                        |                                | 68.944      | 53.084  |            | 55.300  |            | 11.692       |            | -           |            | 11.692        | 0.000            | 189.020    | N/A                      |

**Remarks**  
Competitive OTA for development and integration. FY2024 funding supports continued system development and integration on at least, but not limited to the Stryker vehicle platform, the AMPV vehicle platform and the IBCCT vehicle platform that will enable TLS fielded systems to match vehicle platforms organic to the fielded unit.

| <b>Test and Evaluation (\$ in Millions)</b> |                        |                                |             | FY 2023 |            | FY 2024 |            | FY 2025 Base |            | FY 2025 OCO |            | FY 2025 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          |                  |            |                          |
| Test Events                                 | IA                     | ATEC : APG, MD                 | 3.251       | 5.548   | Mar 2023   | 5.786   | Mar 2024   | 1.742        | Feb 2025   | -           |            | 1.742         | 0.000            | 16.327     | -                        |
| <b>Subtotal</b>                             |                        |                                | 3.251       | 5.548   |            | 5.786   |            | 1.742        |            | -           |            | 1.742         | 0.000            | 16.327     | N/A                      |

**Remarks**  
FY2024 Test & Evaluation efforts will be accomplished via a combination of various support contracts and direct Government support.



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| <b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Army</b> |   | <b>Date:</b> March 2024   |
| <b>Appropriation/Budget Activity</b><br>2040 / 5             | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |

| Event Name   | FY 2023 |   |   |   | FY 2024 |   |   |   | FY 2025 |   |   |   | FY 2026 |   |   |   | FY 2027 |   |   |   | FY 2028 |   |   |   | FY 2029 |   |   |   |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|  | 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 |
| Stryker Variant Prototyping                                |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| AMPV Variant Prototyping                                   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Manpack Variant Prototyping                                |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Stryker Variant Operational Demonstration                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Manpack Variant Operational Demonstration                  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Stryker & Manpack Rapid Fielding Decision Point            |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Manpack Variant Build                                      |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Stryker Variant Build                                      |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Stryker Variant Operational Assessment and Manpack Testing |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| AMPV Variant Operational Demonstration                     |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| AMPV Variant Build   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army |   | <b>Date:</b> March 2024   |
| <b>Appropriation/Budget Activity</b><br>2040 / 5              | <b>R-1 Program Element (Number/Name)</b><br>PE 0304270A / <i>Electronic Warfare Development</i> | <b>Project (Number/Name)</b><br>FJ5 / <i>Terrestrial Layer System</i> |

Schedule Details

| Events   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Stryker Variant Prototyping                                | 3       | 2020 | 4       | 2024 |
| AMPV Variant Prototyping                                   | 2       | 2023 | 3       | 2025 |
| Manpack Variant Prototyping                                | 2       | 2023 | 4       | 2023 |
| Stryker Variant Operational Demonstration                  | 4       | 2023 | 4       | 2023 |
| Manpack Variant Operational Demonstration                  | 1       | 2024 | 1       | 2024 |
| Stryker & Manpack Rapid Fielding Decision Point            | 2       | 2024 | 2       | 2024 |
| Manpack Variant Build                                      | 2       | 2024 | 4       | 2028 |
| Stryker Variant Build                                      | 3       | 2024 | 4       | 2026 |
| Stryker Variant Operational Assessment and Manpack Testing | 2       | 2025 | 2       | 2025 |
| AMPV Variant Operational Demonstration                     | 3       | 2025 | 3       | 2025 |
| AMPV Variant Build   | 1       | 2026 | 4       | 2029 |