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**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army** **Date:** April 2022

| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 6: RDT&amp;E Management Support</i> |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> |                      |                |                |                |                |                         |                   |
|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| <b>COST (\$ in Millions)</b>   | <b>Prior Years</b> | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023 Base</b> | <b>FY 2023 OCO</b>  | <b>FY 2023 Total</b> | <b>FY 2024</b> | <b>FY 2025</b> | <b>FY 2026</b> | <b>FY 2027</b> | <b>Cost To Complete</b> | <b>Total Cost</b> |
| Total Program Element  | -                  | 46.847         | 79.585         | 87.122              | -   | 87.122               | 87.326         | 86.091         | 86.598         | 87.659         | 0.000                   | 561.228           |
| 312: <i>Army/Joint Experimentation</i>   | -                  | 10.021         | 42.985         | 34.980              | -   | 34.980               | 35.818         | 36.319         | 36.785         | 37.363         | 0.000                   | 234.271           |
| 317: <i>Current Force Capability Gaps</i>  | -                  | 36.826         | 36.600         | 52.121              | -   | 52.121               | 51.494         | 49.772         | 49.813         | 50.296         | 0.000                   | 326.922           |
| 33B: <i>Soldier-Centered Analyses For Future Force</i>   | -                  | -              | -              | 0.021               | -   | 0.021                | 0.014          | -              | -              | -              | 0.000                   | 0.035             |

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

The Army Concepts Experimentation Program supports current and future concepts and capabilities involving Soldiers and Leaders within live, virtual, and constructive environments by exploring concepts, capability requirements and solutions across Doctrine, Organization, Training, Materiel, Leadership and Education, personnel, and Facilities (DOTMLPF) domains. The purpose of Concepts Experimentation is to clarify and mitigate risk for current and future forces. Experiments and projects inform Army futures concepts and assess high-risk conceptual assumptions in order to focus required capabilities and represent user requirements in the future Army to produce an MDO ready force by 2035. Army experiments use the combined resources of Army Battle Laboratories, operational units, research labs, materiel developers, industry and academia to collaborate in the development, refinement, and assessment of future force concepts. Simulated Experiments (SIMEX) will integrate and assess Army Concepts and Force Design phases with Army-level issues across the breadth of a campaign that highlights validation and integration of MDO capabilities.

This Program Element (PE) enhances Joint Capabilities Integration and Development System (JCIDS) development in support of Program Executive Offices (PEOs) and Program Managers (PMs) for acquisition milestone decisions. Funding ensures AFC/FCC serves as the voice of the warfighter and compliments the materiel developer in providing total capability management ensuring the integration of DOTMLPF solutions. This PE provides funding for Joint Warfighter Assessments (JWA) that physically integrate, assess and evaluate networked capability sets and other adaptive capabilities to accelerate the systems acquisition process of providing DOTMLPF recommendations to the Army. JWA is an integrated part of a series of linked experiments (Defender, Forager, MDO Live, and Project Convergence) that help the Army evaluate emerging concepts, integrate new technologies, and promote interoperability between the Army, other services and multinational partners. This PE also provides funding for Project Convergence which is the Army's new campaign of learning, designed to aggressively advance and integrate our Army's contributions to Joint Force overmatch. It ensures the Army, as part of the Joint fight, can rapidly and continuously integrate or "converge" effects across all domains to overmatch our adversaries in competition and conflict.

The Soldier-Centered Analysis For Future Force Project (33B) will provide early application of human performance and human figure modeling tools in the development of Soldier-focused requirements to shape technology for Future Force development. These efforts include design analyses, constructive simulations, and Soldier-in-the loop assessments to ensure that manpower requirements and workload and skill demands are considered, avoiding information and physical task overloads and taking optimum advantage of aptitudes, individual and collective training, and numbers of Soldiers for an affordable Future Force.

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| <b>Appropriation/Budget Activity</b><br>2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 6: RDT&amp;E Management Support</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> |
|--|---|

| <b>B. Program Change Summary (\$ in Millions)</b> | <b><u>FY 2021</u></b> | <b><u>FY 2022</u></b> | <b><u>FY 2023 Base</u></b> | <b><u>FY 2023 OCO</u></b> | <b><u>FY 2023 Total</u></b> |
|---|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| Previous President's Budget                       | 50.394                | 79.710                | 0.000                      | -                         | 0.000                       |
| Current President's Budget                        | 46.847                | 79.585                | 87.122                     | -                         | 87.122                      |
| Total Adjustments                                 | -3.547                | -0.125                | 87.122                     | -                         | 87.122                      |
| • Congressional General Reductions                | -                     | -                     |                            |                           |                             |
| • Congressional Directed Reductions               | -                     | -                     |                            |                           |                             |
| • Congressional Rescissions                       | -                     | -                     |                            |                           |                             |
| • Congressional Adds                              | -                     | -                     |                            |                           |                             |
| • Congressional Directed Transfers                | -                     | -                     |                            |                           |                             |
| • Reprogrammings                                  | -3.547                | -                     |                            |                           |                             |
| • SBIR/STTR Transfer                              | -                     | -                     |                            |                           |                             |
| • Adjustments to Budget Years                     | -                     | -                     | 87.122                     | -                         | 87.122                      |
| • FFRDC Transfer                                  | -                     | -0.125                | -                          | -                         | -                           |

**Change Summary Explanation**

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

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army |                    |                |                |                     |   |                      |                |                |   | <b>Date:</b> April 2022 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 6                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> |                      |                |                | <b>Project (Number/Name)</b><br>312 / <i>Army/Joint Experimentation</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023 Base</b> | <b>FY 2023 OCO</b>  | <b>FY 2023 Total</b> | <b>FY 2024</b> | <b>FY 2025</b> | <b>FY 2026</b>  | <b>FY 2027</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| 312: <i>Army/Joint Experimentation</i>                             | -                  | 10.021         | 42.985         | 34.980              | -   | 34.980               | 35.818         | 36.319         | 36.785  | 37.363                  | 0.000                   | 234.271           |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -   | -                       |                         |                   |

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

The United States Army Joint Modernization Command (USAJMC) is the Army and Army Futures Command lead for live field experimentation. Army and Joint Experimentation supports current and future concepts and capabilities involving Soldiers and Leaders within live, virtual, and constructive environments by exploring concepts, capability, and formation requirements, and solutions across Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) domains. The purpose of these efforts is to learn and mitigate risk for current and future forces. Experiments and multi-scale assessments inform Army future concepts and assess high-risk conceptual assumptions in order to focus required capabilities, formations and represent user requirements in the future Army. Army experiments use the combined resources of Army Battle Laboratories, operating force units, research laboratories, materiel developers, industry, and academia to collaborate in the development, refinement, and assessment of future force concepts, capabilities and formations at echelon. These experiments are typical in the Joint Warfighting Assessment (JWA), Army Live Prototype Assessments (ALPA), and in Army's new campaign of learning based on a continuous, structured series of demonstrations and experiments called "Project Convergence" (PC) series of events. This project also supports the Army's Simulation-Based Experiments (SIMEX) to integrate and assess near, mid, and far-term future force concepts, force designs, and capabilities. In support of the Army Vision and Army Modernization Strategy, experimentation focuses on the latest Multi-Domain Operations (MDO) Concept, operational and organizational concepts for the Army to produce an MDO ready force by 2035. To refine the Multi-Domain Operations Concept, Army experimentation expands linkages to joint and multi-national experiments.

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

|   | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Experimentation - High-Fidelity Live-Virtual-Constructive Experiments   | 10.021         | 41.411         | 34.980         |
| <b>Description:</b> Experiments address concept and capability developments including integration of capabilities for all Brigade Combat Team (BCT) types; development of future DOTMLPF requirements and solutions; and acceleration and integration of capabilities for current force BCTs and above brigade.   |                |                |                |
| Prototyping events are coordinated with CFTs and other Industry and Academic partners and utilizes live, force on force prototype-based experiments to assess the operational relevance of developing technologies, refine initial Operational and Organizational concepts, and conduct early prototyping to retain current advantages over adversaries, accelerate investments on contested future capabilities, and mitigate risk to the force. |                |                |                |
| <b>FY 2022 Plans:</b>   |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army   |   | <b>Date:</b> April 2022   |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 6   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>312 / <i>Army/Joint Experimentation</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2021</b>  | <b>FY 2022</b> | <b>FY 2023</b> |
| <p>Experiments will address concept and capability developments including integration of capabilities for all BCT types; development of future DOTMLPF requirements and solutions; and acceleration and integration of capabilities for current force BCT's and above brigade.</p> <p>The Joint Warfighting Assessment (JWA) is a capstone event, providing a venue for the Army to demonstrate and assess concepts and capabilities required for a more lethal, expeditionary and agile force. JWA is the only venue to experiment with the Multi-Domain Operations (MDO) concept and a multi-echelon, Joint and Multinational level exercise in the live, virtual, and constructive replicated operational environment with contested domains.</p> <p>Project Convergence ensures the Joint and Multinational force can rapidly and continuously integrate or 'converge' effects across all domains through intelligence gathering, data sharing, interoperable systems to decide and act more rapidly against adversaries in competition and conflict.</p> <p><b>FY 2023 Plans:</b><br/>FY23 experiments will address concept and capability developments including integration of capabilities for all BCT types; development of future DOTMLPF requirements and solutions; and acceleration and integration of capabilities for current force BCT's and above brigade.</p> <p>Project Convergence (PC) is the Army's campaign of learning, designed to aggressively advance solutions in the areas of people, weapons systems, command and control, information, and terrain: and integrate the Army's contribution to Joint All Domain Operations. CSA and SECARMY recently signed a PC Narrative in which they stated 'Through experimentation and learning, Project Convergence helps ensure that the Army has the right people, with the right systems, appropriately enabled, in the right places, to support the Joint fight'. PC is a Secretary of the Army priority for Live Prototyping Experimentation in support of Aimpoint Force, through experimentation and learning, PC helps ensure that the Army has the right people, with the right systems, appropriately enabled, in the right places, to support the Joint fight.</p> <p>The Joint Warfighting Assessment (JWA) is the annual capstone force modernization exercise for the U.S. Army. JWA is designed to achieve an enduring three-fold purpose: (1) accelerate force modernization by integrating and assessing Multi Domain Operations (MDO) concepts, capabilities, and formations at echelon (BCT to Theater Army/CJTF); (2) train a Joint, Interagency, and Multinational (JIM) force in a challenging and realistic operational environment of 2028; and (3) develop future strategic readiness and interoperability in the JIM warfighting team.</p> |   |   |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army |   | <b>Date:</b> April 2022   |
| <b>Appropriation/Budget Activity</b><br>2040 / 6                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>312 / <i>Army/Joint Experimentation</i> |

| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
|--|----------------|----------------|----------------|
| <p>Funds include the transfer of 2 FTEs for the Joint Test Element (JTE) to JMC from ATEC. JTE generates operational solutions to urgent, specific Joint Warfighter problems through a short-term rigorous test program process.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b><br/> FY23 decrease pertains to a change in Project Convergence (PC) execution of funding for PC21 events preparations executed in FY22 thus including both PC21 &amp; PC22 costs. Additionally, FY23 does not include MDO live and PNTAX event costs. PC is a continuous, structured series of demonstrations and experiments that informs not only how the Army applies technology and develops capabilities, but also how it designs and postures the force, and how it plans to fight that force. The scope and size of PC is evolving to support modernization objectives, as well as integrating with Multi-domain operational exercises and enabling events. PC 23 will continue to evolve from PC 22 which was the initial year of the expanded troop list. PC 23 will continue to examine and assess not only the technological impacts of future technologies, but also the ability to leverage those technologies against an adversary (OPFOR) in line with the conceptual underpinnings of the Army's Operating Concept (Multi-Domain Operations). PC 23 will assess the "ways" and the "means" to achieve multi-domain advantages.</p> |                |                |                |
| <p><b><i>Title:</i></b> SBIR/STTR Transfer</p> <p><b><i>FY 2022 Plans:</i></b><br/> Funding transferred in accordance with Title 15 USC 638.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b><br/> Funding transferred in accordance with Title 15 USC 638.</p>  | -              | 1.574          | -              |
| <b>Accomplishments/Planned Programs Subtotals</b>  | 10.021         | 42.985         | 34.980         |

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| <b>C. Other Program Funding Summary (\$ in Millions)</b><br>N/A |
| <b>Remarks</b>  |
| <b>D. Acquisition Strategy</b><br>N/A                           |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army |                    |                |                |                     |   |                      |                |                |  | <b>Date:</b> April 2022 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 6                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> |                      |                |                | <b>Project (Number/Name)</b><br>317 / <i>Current Force Capability Gaps</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023 Base</b> | <b>FY 2023 OCO</b>  | <b>FY 2023 Total</b> | <b>FY 2024</b> | <b>FY 2025</b> | <b>FY 2026</b>   | <b>FY 2027</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| 317: <i>Current Force Capability Gaps</i>                          | -                  | 36.826         | 36.600         | 52.121              | -   | 52.121               | 51.494         | 49.772         | 49.813   | 50.296                  | 0.000                   | 326.922           |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -  | -                       |                         |                   |

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

This project enables Army Futures Command (AFC) Futures and Concepts Center (FCC) to develop, integrate and help synchronize capability requirements and solutions into the operational force to meet the Army's goal of an MDO ready force by 2035. Funding ensures that the FCC acts independently and serves as the voice of the Warfighter, complementing the materiel developer in providing total capability management that integrates all doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) considerations. This project also provides AFC and FCC resources to execute Capability Development and Integration Directorate (CDID) Battle Lab experimentation, assessments and analysis addressing the Army's biggest modernization challenges. FCC plans and conducts experiments to gain insight and recommendations in the development of integrated concepts and requirements to inform Army Senior Leader modernization decisions through the results of rigorous deliberate learning. Funding in this project also enables FCC to maintain the Army Capability-based Architecture Development and Integration Environment (ArCADIE) providing storage, accessibility, production, and certification of authoritative architecture data and supporting systems. ArCADIE enables FCC to develop, verify and validate operational architecture for eight major BCT formations.

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

|  | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> CDID/TCM JCIDS Requirements Documentation  | 21.176         | 22.254         | -              |
| <b>Description:</b> The AFC/FCC team facilitates requirements determination in coordination with the Joint Requirements Oversight Council (JROC) and in coordination with the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) which directs and ensures Milestone acquisition decisions are formally staffed and fully integrated across the Future Force Modernization Enterprise. Funding ensures AFC/FCC serves as the voice of the warfighter and compliments the materiel developer in providing total capability management ensuring the integration of all DOTMLPF solutions. |                |                |                |
| <b>FY 2022 Plans:</b><br>Funding ensures requirement determination and integration in Cyber areas including Cyberspace, Networks and Services, Electromagnetic Spectrum Operations and Tactical Radios to support Army's Cyber priorities and CFT efforts. Funding also provides Sustainment CDID the ability to conduct requirements determination for watercraft and maneuver support vessels.   |                |                |                |
| <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br>Decreases to 0 due to this accomplishment being updated and input as new accomplishment reflecting updated Army organizations and terminology.   |                |                |                |
| <b>Title:</b> Requirements Determination   | -              | -              | 23.423         |

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| <b>Appropriation/Budget Activity</b><br>2040 / 6   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>317 / <i>Current Force Capability Gaps</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2021</b>   | <b>FY 2022</b> | <b>FY 2023</b> |
| <p><b>Description:</b> This accomplishment is a renaming of previous CDID/TCM JCIDS Requirements Documentation accomplishment to update organizational names and terminology.</p> <p>The AFC/FCC team facilitates requirements determination in coordination with the Joint Requirements Oversight Council (JROC) and in coordination with the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) which directs and ensures Milestone acquisition decisions are formally staffed and fully integrated across the Future Force Modernization Enterprise. Funding ensures AFC/FCC serves as the voice of the warfighter and compliments the materiel developer in providing total capability management ensuring the integration of all DOTMLPF solutions.</p> <p><b>FY 2023 Plans:</b><br/>Funding ensures requirement determination, documentation and integration in support of all FCC CDIDs. Includes areas of Aviation platforms and enablers, Soldier and Robotic requirement development, Sustainment watercraft and maneuver support vehicles, and Cyber ACM areas of Cyberspace, Networks and Services, Electromagnetic Spectrum Operations and Tactical Radios. Cyber ACMs provide support to the Army's Cyber priorities and CFT efforts.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>Increase in funding due to moving requirements from Task: CDID/TCM JCIDS Requirements Documentation and increased economic impacts.</p> |   |  |                |                |
| <p><b>Title:</b> Accelerated Capabilites Development</p> <p><b>Description:</b> Prototyping events are coordinated with CFTs and other Industry and Academic partners and utilizes live, force on force prototype-based experiments to assess the operational relevance of developing technologies, refine initial Operational and Organizational concepts, and conduct early prototyping to retain current advantages over adversaries, accelerate investments on contested future capabilities, and mitigate risk to the force.</p> <p><b>FY 2022 Plans:</b><br/>FCC conducts ALPA experiments to continue identification and assessment of Multi Domain Operations solutions and to refine operational and organizational concepts.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>Decrease due to ALPA transition to JMC as the program manager under Project 312.</p>  |   | 1.309  | 3.782          | -              |
| <p><b>Title:</b> Army Focused Warfighting Experiments (AFWE)</p> <p><b>Description:</b> This accomplishment is a renaming of the above Accelerated Capabilities Development accomplishment to update mission and terminology.</p>  |   | -  | -              | 7.225          |

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| <b>Appropriation/Budget Activity</b><br>2040 / 6                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>317 / <i>Current Force Capability Gaps</i> |

| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
|--|----------------|----------------|----------------|
| <p>AFWE evolved from formerly known Army Live Prototyping Assessments. AFWE is full spectrum experimentation that examines new and innovative concepts and capabilities to support the Army's Force Design efforts to achieve the Army 2040 as well as Combined Arms Center's Force Development equities to achieve the Army 2030. AFWE focuses beyond just materiel solutions by also looking at new organization designs, and how to fight tactics, techniques, and procedures to better inform development of the Army 2040. AFWE planning and event proposals are aligned to and incorporated into Project Convergence use case planning.</p> <p><b>FY 2023 Plans:</b><br/>FCC conducts AFWE experiments to continue identification and assessment of Multi Domain Operations solutions and to refine operational and organizational concepts.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>Increase due to re-purposed AFWE series of events that explore new innovations which inform capabilities development activities, rapid acquisition, and feeds follow on experimentation (Project Convergence, other AFWE events, MDO-Live, etc.)</p>  |                |                |                |
| <p><b>Title:</b> Battle Lab Experimentation and Support</p> <p><b>Description:</b> Funding allows CDID Battle Lab to execute experiments in support of Army modernization efforts. Experimentation informs concepts, requirements, material solutions, and DOTMLPF changes for critical capability gaps and informs Army Senior Leader modernization decisions through the results of rigorous deliberate learning. Experimentation enables the Army to achieve an MDO ready force by 2035 and identifies opportunities to transform how the Army might fight beyond 2035.</p> <p><b>FY 2022 Plans:</b><br/>Cyber Quest will be conducted via Cyber CDID Battle Lab to experiment with and evaluate potential Cyber, Signal, Intelligence and EW material and DOTMLPF-P solutions. Funding provides staff, 45 military experimental forces, equipment and testing material costs, and travel costs.</p> <p><b>FY 2023 Plans:</b><br/>Funds provide CDID Battle Lab capacity in order for FCC to plan and execute experiments in order to refine and underpin concepts and requirements with analysis. Funds provide contracted functional SMEs, facilitation analysts, software and travel costs.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>Increase in FY23 due to FCC battle lab capacity contracts transitioning to RDTE.</p> | 13.240         | 1.419          | 17.050         |
| <p><b>Title:</b> Army Capability-based Architecture Development and Integration Environment (ArCADIE)</p>  | 0.500          | 6.027          | 0.408          |

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| <b>Appropriation/Budget Activity</b><br>2040 / 6   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>317 / <i>Current Force Capability Gaps</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2021</b>   | <b>FY 2022</b> | <b>FY 2023</b> |
| <p><b>Description:</b> ArCADIE is the Army's authoritative source for architecture data and supports the community of practice requirement. ArCADIE provides a robust collaborative and common enterprise environment for architecture-related efforts in support of critical institutional processes throughout the TRADOC Centers of Excellence, AFC CDIDs and Army/Joint/Department of Defense (DOD) partners. Offers a single, federated web-based environment for the development and discovery of integrated architectures across warfighting functions, and organizations throughout the Army Enterprise.</p> <p><b>FY 2022 Plans:</b><br/>Enable FCC to maintain ArCADIE and develop, verify, and validate operational architecture for eight major BCT formations. Provide storage, accessibility, production, and certification of authoritative architecture data and supporting systems in accordance with DoD and DA information Assurance and management standards.</p> <p><b>FY 2023 Plans:</b><br/>Enable FCC to maintain ArCADIE and develop, verify, and validate operational architecture for eight major BCT formations. Provide storage, accessibility, production, and certification of authoritative architecture data and supporting systems in accordance with DoD and DA information Assurance and management standards.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>Decrease due to realignment of priorities and funds applied to battle lab contracts and the support of SESU initiatives until SESU becomes a Program of Record beginning in FY25.</p> |   |  |                |                |
| <p><b>Title:</b> System of Systems Enhanced Small Unit (SESU) Focused Assessments</p> <p><b>Description:</b> In support of HQDA EXORD 304-17 the SESU initiative will attempt to solve the following problem: how can the Army and DARPA create a SESU unit capable of defeating a heavy division by leveraging current and future capabilities while operating and synchronizing the efforts of DARPA and the Army? The scope of SESU is to create a concept for enhancing a small unit with capabilities to over match a heavy enemy division.</p> <p><b>FY 2022 Plans:</b><br/>Funding supports Focused Assessments, Models and Simulations, and Capstone Demonstration.</p> <p><b>FY 2023 Plans:</b><br/>Funding supports Focused Assessments, Models and Simulations, and Capstone Demonstration.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br/>In crease in funding due to the addition of the System of Systems Enhanced Small Unit (SESU) focused assessments in direct support of HQDA EXORD 304-17.</p>  |   | 0.601  | 1.782          | 4.015          |
| <p><b>Title:</b> SBIR/STTR Transfer</p>  |   | -  | 1.336          | -              |

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|--|---|--|----------------|----------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army   |   | <b>Date:</b> April 2022  |                |                |
| <b>Appropriation/Budget Activity</b><br>2040 / 6   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>317 / <i>Current Force Capability Gaps</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>  |   | <b>FY 2021</b>   | <b>FY 2022</b> | <b>FY 2023</b> |
| <b><i>FY 2022 Plans:</i></b><br>Funding transferred in accordance with Title 15 USC ?638.                                  |   |  |                |                |
| <b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b><br>Funding transferred in accordance with Title 15 USC ?638. |   |  |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>  |   | 36.826   | 36.600         | 52.121         |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>   |   |  |                |                |
| N/A  |   |  |                |                |
| <b>Remarks</b>   |   |  |                |                |
| test   |   |  |                |                |
| <b>D. Acquisition Strategy</b>   |   |  |                |                |
| N/A  |   |  |                |                |

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|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|---|-------------------------|-------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army |                    |                |                |                     |   |                      |                |                |   | <b>Date:</b> April 2022 |                         |                   |
| <b>Appropriation/Budget Activity</b><br>2040 / 6                   |                    |                |                |                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> |                      |                |                | <b>Project (Number/Name)</b><br>33B / <i>Soldier-Centered Analyses For Future Force</i> |                         |                         |                   |
| <b>COST (\$ in Millions)</b>                                       | <b>Prior Years</b> | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023 Base</b> | <b>FY 2023 OCO</b>  | <b>FY 2023 Total</b> | <b>FY 2024</b> | <b>FY 2025</b> | <b>FY 2026</b>  | <b>FY 2027</b>          | <b>Cost To Complete</b> | <b>Total Cost</b> |
| 33B: <i>Soldier-Centered Analyses For Future Force</i>             | -                  | -              | -              | 0.021               | -   | 0.021                | 0.014          | -              | -   | -                       | 0.000                   | 0.035             |
| Quantity of RDT&E Articles   | -                  | -              | -              | -                   | -   | -                    | -              | -              | -   | -                       |                         |                   |

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

This Project will provide early application of human performance and human figure modeling tools in the development of Soldier-focused requirements to shape technology for Future Force development. Efforts include design analyses, constructive simulations, and Soldier-in-the-loop assessments to ensure that manpower requirements and workload and skill demands are considered, avoiding information and physical task overloads and taking optimum advantage of aptitudes, individual and collective training, and numbers of Soldiers for an affordable Future Force.

The cited work is consistent with the Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP).

Work in this Project is performed by the United States (U.S.) Army Combat Capabilities Development Command (CCDC) Data and Analysis Center (DAC).

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

|  | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> Manpower and Personnel Integration (MANPRINT)  | -              | -              | 0.021          |
| <b>Description:</b> Provide dedicated modeling and analysis cell for early and accurate MANPRINT estimates to the U.S. Army Futures Command (AFC), DEVCOM and its Centers, The Research and Analysis Center, Schools and Centers of Excellence (CoEs), Army Test and Evaluation Command (ATEC) and other service laboratories. |                |                |                |
| <b>FY 2023 Plans:</b><br>Will expand the digital library by developing 3D models of Soldier clothing and equipment items to perform early human figure modeling assessments of planned and/or prototypes of Army modernization platform designs and enhancements.  |                |                |                |
| <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b><br>Increased requirement to support Army modernization priorities with manpower and personnel modeling  |                |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>  | -              | -              | 0.021          |

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

N/A

**Remarks**

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|  |   |   |
|--|---|---|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army |   | <b>Date:</b> April 2022   |
| <b>Appropriation/Budget Activity</b><br>2040 / 6                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0605326A / <i>Concepts Experimentation Program</i> | <b>Project (Number/Name)</b><br>33B / <i>Soldier-Centered Analyses For Future Force</i> |

**D. Acquisition Strategy**

N/A