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

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| Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0605052A / <i>Indirect Fire Protection Capability Inc 2 - Block 1</i> |
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| COST (\$ in Millions) | Prior Years | FY 2021 | FY 2022 | FY 2023 Base | FY 2023 OCO | FY 2023 Total | FY 2024 | FY 2025 | FY 2026 | FY 2027 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 152.399 | 182.257 | 131.093 | - | 131.093 | 59.266 | 10.774 | 10.778 | 0.000 | 0.000 | 546.567 |
| EY7: <i>IFPC Increment 2 - Block 1</i> | - | 152.399 | 182.257 | 131.093 | - | 131.093 | 59.266 | 10.774 | 10.778 | - | 0.000 | 546.567 |

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army Air and Missile Defense Modernization Priority.

The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher and interceptor integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.

The Army is pursuing the IFPC Inc 2 capability consisting of a launcher and interceptor as the kinetic solution for the mission to defeat CM, UAS, and RAM threats. The Army plans to pursue the IFPC High Energy Laser (IFPC HEL) and IFPC High Powered Microwave (IFPC HPM) as non-kinetic effectors of the IFPC counter-RAM, counter-CM, and counter-UAS (Class 1 - 3) missions.

Additionally, section 112 of the National Defense Authorization Act for 2019 directed the Army to deploy an Interim Cruise Missile Defense (CMD) capability. The Army contracted with the Israeli Missile Defense Organization (IMDO) for two Interim CMD (Iron Dome Defense System - Army (IDDS-A)) batteries and continues efforts to improve their interoperability with the Army's Integrated Air and Missile Defense networks.

Fiscal Year (FY) 2023 Base dollars in the amount of \$131.093 million are designated for Interim CMD Interoperability testing and support, the development, integration, and testing of the IFPC Inc 2 system, and initialization of the IFPC Directed Energy team.

The total cost of the IFPC Inc 2 Middle Tier Acquisition (MTA) effort is \$521.3 million RDT&E from FY 2021 to FY 2024. IFPC Inc 2 MTA is fully funded across the Future Years Defense Program.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army | Date: April 2022 |
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| B. Program Change Summary (\$ in Millions) | FY 2021 | FY 2022 | FY 2023 Base | FY 2023 OCO | FY 2023 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 153.362 | 233.512 | 0.000 | - | 0.000 |
| Current President's Budget | 152.399 | 182.257 | 131.093 | - | 131.093 |
| Total Adjustments | -0.963 | -51.255 | 131.093 | - | 131.093 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | -51.244 | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | -0.963 | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Adjustments to Budget Years | - | - | 131.093 | - | 131.093 |
| • FFRDC Transfer | - | -0.011 | - | - | - |

Change Summary Explanation

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

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

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| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1 | Project (Number/Name) EY7 / IFPC Increment 2 - Block 1 |
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| COST (\$ in Millions) | Prior Years | FY 2021 | FY 2022 | FY 2023 Base | FY 2023 OCO | FY 2023 Total | FY 2024 | FY 2025 | FY 2026 | FY 2027 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| <i>EY7: IFPC Increment 2 - Block 1</i> | - | 152.399 | 182.257 | 131.093 | - | 131.093 | 59.266 | 10.774 | 10.778 | - | 0.000 | 546.567 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army Air and Missile Defense Modernization Priority.

The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher and interceptor integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.

In response to section 112 of the National Defense Authorization Act for 2019, the Army evaluated alternative strategies to address an Army interim CM defense (CMD) capability at critical strategic fixed site locations while continuing the development of an IFPC capability. In Fiscal Year (FY) 2019, the Army contracted with the Israeli Missile Defense Organization (IMDO) for two Interim CMD (Iron Dome Defense System - Army (IDDS-A)) batteries that were delivered in FY 2021. The IFPC Inc 2 program is conducting an interoperability effort to establish communications between the Interim CMD (IDDS-A) batteries' Battle Management Center (BMC) and the US Army's Air and Missile Defense (AMD) Architecture that includes the Army's Integrated Air and Missile Defense (IAMD) Battle Command System (IBCS) and legacy Air Defense command and control (C2) networks.

Concurrently with the Interim CMD effort, the Army is pursuing an Enduring IFPC Inc 2 Middle Tier Acquisition (MTA) - Rapid Prototyping strategy. This competitive strategy invited Industry to participate in a "Shoot Off" demonstration in FY 2021 using Industries' proposed launcher and missile solutions integrated with the Army's IBCS and Sentinel radar. The Army awarded a fixed price Other Transaction Authority (OTA) agreement to Dynetics, Inc. on 24 September, 2021 to deliver the Enduring IFPC Inc 2 prototype solution. The Army will use this MTA Rapid Prototyping approach to provide a prototype capability in FY 2023, before transitioning into Production and Deployment phase.

The total cost of the IFPC Inc 2 Middle Tier Acquisition (MTA) effort is \$521.3 million RDT&E from FY 2021 to FY 2024. IFPC Inc 2 MTA is fully funded across the Future Years Defense Program.

The Army plans to pursue the IFPC High Energy Laser (IFPC HEL) and IFPC High Powered Microwave (IFPC HPM) as non-kinetic effectors of the IFPC counter-RAM, counter-CM, and counter-UAS (Class 1 - 3) missions. The IFPC HEL and IFPC HPM elements will be robust, cost effective, and sustainable complementary capabilities to the overall IFPC mission to protect key fixed and semi-fixed sites. The IFPC Product Office will conduct initial planning and coordination with the Army Rapid Capabilities and Critical Technologies Office (RCCTO) and the Army's Air and Missile Defense Cross-Functional Team (AMD CFT) in FY 2023 to enable an efficient transfer of the IFPC HEL and IFPC HPM efforts in FY 2024.

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| Exhibit R-2A, RDT&E Project Justification: PB 2023 Army | | Date: April 2022 | | |
| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / <i>Indirect Fire Protection Capability Inc 2 - Block 1</i> | Project (Number/Name) EY7 / <i>IFPC Increment 2 - Block 1</i> | | |
| FY 2023 Base dollars in the amount of \$131.093 million are designated for Interim CMD Interoperability testing and support, the development, integration, and testing of the IFPC Inc 2 system, and initialization of the IFPC Directed Energy team for coordination on the Program transfer from RCCTO and establishment of future requirements. | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2021 | FY 2022 | FY 2023 |
| <p>Title: Interim CMD (Iron Dome Defense System - Army) Integration and Testing</p> <p>Description: Funding is provided to support the assessment of operational utility and safety of the Iron Dome Defense System-Army (IDDS-A) as an Interim IFPC Inc 2 capability</p> <p>FY 2022 Plans:</p> <ul style="list-style-type: none"> - Residual testing of Interim CMD (IDDS-A) capability - Interim CMD (IDDS-A) Interoperability Operational Assessment - Conduct system engineering, logistics engineering, system evaluation management, and technical configuration control to enhance interoperability of Interim CMD (IDDS-A) capability with US missile defense architecture - Assess supportability requirements, sufficiency of training, maintenance and repair procedures, and capabilities of logistics support package during Operational Assessment - Continue IAMD effort to expand interoperability between Interim CMD (IDDS-A) and the Army Integrated Air and Missile Defense (AIAMD) through IBCS - IFPC's Interim CMD (IDDS-A) will develop nascent capability and support Army demonstration and test initiatives to increase interoperable offensive and defensive capability across warfighter functions and multiple domains <p>FY 2022 to FY 2023 Increase/Decrease Statement: Interoperability efforts completed in FY 2022.</p> | | 4.475 | 5.335 | - |
| <p>Title: IFPC Inc 2 Prototype Development, Integration, Manufacturing, and Testing</p> <p>Description: Funding is provided to support the development, integration, prototype manufacturing, and testing of the IFPC Inc 2 capability</p> <p>FY 2022 Plans:</p> <ul style="list-style-type: none"> - FY 2022 SBIR/STTR Transfer - Continue manufacturing of incrementally funded IFPC Inc 2 prototype launchers (16) and interceptors (80) - Continue launcher, interceptor, and system hardware and software design for producibility, affordability, and operational supportability to ensure materiel availability and reduce the logistics footprint - Continue IFPC Inc 2 interceptor integration with launcher | | 147.924 | 170.269 | 129.848 |

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| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2021 | FY 2022 | FY 2023 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - Continue IFPC Inc 2 launcher and interceptor development activities to integrate launcher and interceptor hardware and software, communications, and Data Uplink, and externally with IBCS EOC and Sentinel radar to ensure operational integrity and protection of critical program information - Continue IFPC Inc 2 launcher and interceptor model and simulation accreditation to provide alternate means to prove out system capabilities while reducing live fire test event requirements - Continue Interoperability End-to-End simulations and testing, to include updating the GSIL's Hardware-in-the-Loop elements with selected prototype hardware - Develop and integrate Operator and Maintainer Interfaces: Technical User and Maintenance Manuals, internal Maintenance Troubleshooting software, internal training software, RT3 software update for IFPC system, update to IBCS mission command SW tools (i.e., Integrated Defense Designer tool to inform for optimal coverage and protection) - Develop trainer hardware and software packages for institutional Operators and Maintainers training at ADA School and NG Training Sites - Initiate testing activities to demonstrate system integration, interoperability, supportability, safety, and utility - Initiate testing activities to demonstrate reliability, availability, maintainability, and sustainment features included in design of the system and ensure operational supportability while minimizing the logistical footprint - Conduct initial planning and coordination with RCCTO and AMD CFT on IFPC HEL and IFPC HPM <p>FY 2023 Plans:</p> <ul style="list-style-type: none"> - Final incremental funding for delivery of IFPC Inc 2 prototype launchers and interceptors - Continue IFPC Inc 2 launcher and interceptor model and simulation efforts to provide alternate means to prove out system capabilities while reducing live fire test event requirements - Continue Interoperability End-to-End simulations and testing, to include updating the GSIL's Hardware-in-the-Loop elements with selected prototype hardware - Evaluate Operator and Maintainer Interfaces with Soldiers: Technical User and Maintenance Manuals, internal Maintenance Troubleshooting software, internal training software, RT3 software update for IFPC system, update to IBCS mission command SW tools (i.e., Integrated Defense Designer tool to inform for optimal coverage and protection) - Evaluate trainer hardware and software packages for institutional Operators and Maintainers training at ADA School and NG Training Sites - Continue developmental, operational, and Integrated Fires testing to ensure operational supportability while minimizing the logistical footprint <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p> | | | |

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| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2021 | FY 2022 | FY 2023 |
|--|----------------|----------------|----------------|
| Program continues correcting issues found in developmental testing and improving integration, while starting to transition to operational and flight tests. | | | |
| Title: IFPC Directed Energy Integration and Test FY 2023 Plans: The IFPC Inc 2 Product Office will establish an initial IFPC Direct Energy team to coordinate the transfer of responsibility, as well as, determine IFPC Inc 2 Product Office requirements for these products FY 2022 to FY 2023 Increase/Decrease Statement: New requirement for FY 2023 | - | - | 1.245 |
| Title: FY22 SBIR/STTR Transfer FY 2022 Plans: FY22 SBIR/STTR Transfer FY 2022 to FY 2023 Increase/Decrease Statement: FY22 SBIR/STTR Transfer | - | 6.653 | - |
| Accomplishments/Planned Programs Subtotals | 152.399 | 182.257 | 131.093 |

| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
|--|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| Line Item | FY 2021 | FY 2022 | FY 2023 Base | FY 2023 OCO | FY 2023 Total | FY 2024 | FY 2025 | FY 2026 | FY 2027 | Cost To Complete | Total Cost |
| • C62002: <i>IFPC INC 2- I BLOCK 1 SYSTEM</i> | 62.461 | 19.053 | 18.924 | - | 18.924 | 386.383 | 670.667 | 712.994 | 722.152 | 0.000 | 2,592.634 |
| • E10: <i>Sentinel</i> | 105.271 | 122.607 | 71.259 | - | 71.259 | 74.055 | 31.655 | 8.578 | 8.662 | 0.000 | 422.087 |
| • WK5057: <i>Sentinel Mods</i> | 92.380 | 47.642 | 166.736 | - | 166.736 | 165.199 | 234.255 | 234.248 | 235.052 | Continuing | Continuing |
| • S40: <i>Army Integrated Air and Missile Defense</i> | 213.956 | 159.873 | 265.288 | - | 265.288 | 289.312 | 344.958 | 182.204 | 131.523 | 0.000 | 1,587.114 |
| • BZ5075: <i>IAMD Battle Command System</i> | 198.587 | 296.872 | 438.967 | - | 438.967 | 412.920 | 457.335 | 458.445 | 457.608 | Continuing | Continuing |
| • BU9: <i>IFPC High Energy Laser</i> | - | 8.258 | 177.843 | - | 177.843 | 133.534 | 32.208 | - | - | 0.000 | 351.843 |
| • CO6: <i>IFPC High Power Microwave (HPM)</i> | - | 19.614 | 42.977 | - | 42.977 | 11.402 | 4.104 | - | - | 0.000 | 78.097 |

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| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / <i>Indirect Fire Protection Capability Inc 2 - Block 1</i> | Project (Number/Name) EY7 / <i>IFPC Increment 2 - Block 1</i> |
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C. Other Program Funding Summary (\$ in Millions)

| <u>Line Item</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u> <u>Base</u> | <u>FY 2023</u> <u>OCO</u> | <u>FY 2023</u> <u>Total</u> | <u>FY 2024</u> | <u>FY 2025</u> | <u>FY 2026</u> | <u>FY 2027</u> | <u>Cost To Complete</u> | <u>Total Cost</u> |
|------------------|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
|------------------|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|

Remarks

This program is an integral part of the Army Integrated Air and Missile Defense (AIAMD) architecture.

D. Acquisition Strategy

As reported to Congress in Oct 2018, the Army has rapidly fielded an Interim CMD capability with the Israeli Iron Dome Defense System - Army (IDDS-A). Concurrently, the Army has initiated efforts to integrate an Enduring IFPC capability of a launcher and interceptor leveraging the AIAMD open systems architecture and IBCS, as the Fire Control component, and the US Sentinel sensor.

On 9 Feb 2019, the Army approved a Directed Requirement to initiate procurement of the Israeli IDDS-A for the Interim CMD capability. Congress approved ATR actions to align IFPC FY 2018 and 2019 Procurement to fund the Interim CMD (IDDS-A) purchase and to repurpose the FY 2019 RDTE funds in May 2019 for associated system evaluation.

To support the Interim CMD (IDDS-A) requirement, the Army contracted for two Interim CMD (IDDS-A) batteries for technical evaluation, assessment of operational utility, and safety evaluation. Additionally, the IFPC program has performed logistics analysis and assessments to determine IDDS-A training requirements, fielding requirement, spares packages, maintenance policies, and required Operational and Maintenance documentation. IFPC conducted Performance Analysis and Operational Testing of the Interim CMD (IDDS-A) capability at White Sands Missile Range in FY 2021 to prove out their readiness for deployment. IFPC continues to conduct interoperability efforts to assess the ability to improve IDDS-A interoperability with U.S. Air Defense Artillery system architecture, continuing its logistics assessments, Modeling and Simulation analysis, and interoperability activities.

In support of the Army's enduring Cruise Missile Defense requirement, the Army is utilizing a Middle Tier Acquisition (MTA) Rapid Prototyping approach to evaluate new capability and provide a prototype capability in FY 2023, before transitioning into Production and Deployment phase by FY 2024. In support of the IFPC Inc 2 solution, the Army pursued a Competitive strategy that saw Industry participating in a "Shoot Off" demonstration in FY 2021 using Industries' proposed launcher and missile solutions integrated with the Army's IBCS and Sentinel radar. The Army has evaluated Industry proposals informed by models and simulations, hardware-in-the-loop, and live fire data, to make a Best Value recommendation to proceed to a single vendor to deliver the enduring IFPC Inc 2 prototype solution. The Army awarded a fixed price Other Transaction Authority (OTA) agreement to Dynetics, Inc. on 24 September, 2021 to deliver the Enduring IFPC Inc 2 prototype solution. The MTA contract will run through mid-FY 2024.

The Army plans to pursue the IFPC High Energy Laser (IFPC HEL) and IFPC High Powered Microwave (IFPC HPM) as non-kinetic effectors of the IFPC counter-RAM, counter-CM, and counter-UAS (Class 1 - 3) missions. The Army Rapid Capabilities and Critical Technologies Office (RCCTO) currently manages the IFPC HEL and IFPC HPM programs, which are planned for transfer of responsibility to the IFPC Product Office in 4th Quarter FY 2024. The IFPC Inc 2 Product Office will establish an initial IFPC Direct Energy team to coordinate the transfer of responsibility, as well as, determine IFPC Inc 2 Product Office requirements for these products starting in FY 2023. Current planning assumes the products will require additional development, integration with the AIAMD architecture, and testing.

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| Exhibit R-2A, RDT&E Project Justification: PB 2023 Army | | Date: April 2022 |
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The IFPC Inc 2 program is a component of an integrated fires development effort that includes survivability, resiliency, and effectiveness improvements against advanced threats from near-peer adversaries. This effort includes integration with an evolving common fires mission command, common development tools and processes, and annual test and evaluation to provide data to support program assessments and progress toward closure of performance gaps.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army | | | | | | | | | | | | Date: April 2022 | | | |
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| Appropriation/Budget Activity | | | | R-1 Program Element (Number/Name) | | | | Project (Number/Name) | | | | | | | |
| 2040 / 5 | | | | PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1 | | | | EY7 / IFPC Increment 2 - Block 1 | | | | | | | |
| Management Services (\$ in Millions) | | | | FY 2021 | | FY 2022 | | FY 2023 Base | | FY 2023 OCO | | FY 2023 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 |
| Travel | Various | Various : Various | 1.148 | 0.422 | May 2021 | 0.425 | May 2022 | 0.505 | Oct 2022 | - | | 0.505 | Continuing | Continuing | Continuing |
| SBIR/STTR Transfer | TBD | Various : Various | - | - | | 6.653 | | - | | - | | - | 0.000 | 6.653 | - |
| Subtotal | | | 1.148 | 0.422 | | 7.078 | | 0.505 | | - | | 0.505 | Continuing | Continuing | N/A |
| Product Development (\$ in Millions) | | | | FY 2021 | | FY 2022 | | FY 2023 Base | | FY 2023 OCO | | FY 2023 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 |
| Interim CMD (IDDS-A) - System Dev & Interoperability External Spt | Various | Multiple Activities : Multiple Locations | - | 4.475 | May 2021 | 5.335 | May 2022 | - | | - | | - | 0.000 | 9.810 | - |
| Interim CMD (IDDS-A) Ctr Eng, Product Dev, & Interoperability | Various | Multiple Activities : Multiple Locations | 20.883 | - | | - | | - | | - | | - | 0.000 | 20.883 | - |
| IFPC - System Eng & Integration | Various | Multiple Activities : Multiple Locations | 53.472 | 9.687 | Jul 2021 | 15.030 | Jun 2022 | 18.540 | Oct 2022 | - | | 18.540 | Continuing | Continuing | Continuing |
| IFPC System Dev and Integration External Support | Various | Multiple Activities : Multiple Locations | 45.010 | 19.614 | May 2021 | 23.717 | Jul 2022 | 37.080 | Oct 2022 | - | | 37.080 | Continuing | Continuing | Continuing |
| IFPC Contractor Prototype Dev / Int / Mfg / Log & Test Spt | C/Various | Multiple Activities : Multiple Locations | - | 104.837 | Sep 2021 | 115.480 | Apr 2022 | 15.570 | Apr 2023 | - | | 15.570 | Continuing | Continuing | Continuing |
| IFPC Prototype GFE Hardware | Various | Multiple Activities : Multiple Locations | - | - | | - | | 21.316 | Apr 2023 | - | | 21.316 | 0.000 | 21.316 | - |
| IFPC Directed Energy Integration Support (Transition Team) | Various | Multiple Activities : Multiple Locations | - | - | | - | | 1.245 | Apr 2023 | - | | 1.245 | Continuing | Continuing | Continuing |
| Subtotal | | | 119.365 | 138.613 | | 159.562 | | 93.751 | | - | | 93.751 | Continuing | Continuing | N/A |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army **Date:** April 2022

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| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1 | Project (Number/Name) EY7 / IFPC Increment 2 - Block 1 |
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| Support (\$ in Millions) | | | | FY 2021 | | FY 2022 | | FY 2023 Base | | FY 2023 OCO | | FY 2023 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 | | | |
| Interim CMD (IDDS-A) - Log Support | TBD | TBD : TBD | 54.686 | - | | - | | - | | - | | - | 0.000 | 54.686 | - |
| IFPC Log Support | Various | Multiple Activities : Multiple Locations | 4.942 | 10.456 | May 2021 | 7.225 | Jul 2022 | 4.213 | Nov 2022 | - | | 4.213 | Continuing | Continuing | - |
| Subtotal | | | 59.628 | 10.456 | | 7.225 | | 4.213 | | - | | 4.213 | Continuing | Continuing | N/A |

| Test and Evaluation (\$ in Millions) | | | | FY 2021 | | FY 2022 | | FY 2023 Base | | FY 2023 OCO | | FY 2023 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 | | | |
| Interim CMD (IDDS-A) - Operational Testing | IA | Multiple Activities : Multiple Locations | 50.551 | - | | - | | - | | - | | - | 0.000 | 50.551 | - |
| IFPC PM Testing Support | IA | Multiple Activities : Multiple Locations | 1.609 | 2.192 | Jun 2021 | 1.155 | Jun 2022 | 2.501 | Nov 2022 | - | | 2.501 | Continuing | Continuing | Continuing |
| IFPC Developmental / Operational Testing | IA | Multiple Activities : Multiple Locations | - | 0.716 | Apr 2021 | 7.237 | May 2022 | 29.085 | Nov 2022 | - | | 29.085 | Continuing | Continuing | Continuing |
| Integrated Fires (IF) SoS Interoperability Testing | IA | Multiple Activities : Multiple Locations | - | - | | - | | 1.038 | Mar 2023 | - | | 1.038 | Continuing | Continuing | Continuing |
| Subtotal | | | 52.160 | 2.908 | | 8.392 | | 32.624 | | - | | 32.624 | Continuing | Continuing | N/A |

| | Prior Years | FY 2021 | FY 2022 | FY 2023 Base | FY 2023 OCO | FY 2023 Total | Cost To Complete | Total Cost | Target Value of Contract | | |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|------------|-----|
| Project Cost Totals | | 232.301 | 152.399 | 182.257 | 131.093 | - | - | 131.093 | Continuing | Continuing | N/A |

Remarks
 The Army awarded a Firm Fixed Price Other Transaction Authority (OTA) agreement to prime contractor Dynetics, Inc on 24 Sep, 2021 to develop, manufacture, and provide required test and logistics support leading to the delivery of 16 prototype IFPC systems. The agreement's structure did not clearly delineate the prototype manufacturing from the other services, so the rows detailing the breakout of these costs have been consolidated into one row under Product Development IFPC Contractor Prototype Dev / Int / Mfg / Log & Test Spt with \$15.570M estimated for FY 2023 efforts.

FY 2022 IFPC Contractor Prototype Dev / Int / Mfg / Log & Test Spt funding will be awarded on two separate contracts to Dynetics, Inc and Raytheon.

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| Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army | | Date: April 2022 |
| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1 | Project (Number/Name) EY7 / IFPC Increment 2 - Block 1 |

| Event Name | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | FY 2024 | | | | FY 2025 | | | | FY 2026 | | | | FY 2027 | | | | | | | |
|---|--|---|-----|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|--|--|--|--|
| | 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 | | | | |
| Interim CMD Interoperability development and testing | [Blue bar spanning FY 2021 Q1 to FY 2022 Q2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD Interoperability | [Blue bar spanning FY 2021 Q1 to FY 2022 Q2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD 1st IDDS-A Battery Delivery | ▲ 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD 2nd IDDS-A Battery Delivery | | | ▲ 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD Live Fire Performance Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD Safety Confirmation/Capabilities & Limitations Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD Urgent Materiel Release for Deployment of Batteries 1&2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interim CMD Interoperability Assessment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC MDA Decision Point for Middle Tier Acquisition Strategy | | | ▲ 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC OTA (Single Vendor) for Prototype development completion and manufacturing | [Blue bar spanning FY 2021 Q3 to FY 2024 Q1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC System Testing (Component/System Qual & DT/Live Fire Testing) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC Operational Demonstration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC prototype Combat Capability Units | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC Production Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army | | Date: April 2022 |
| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1 | Project (Number/Name) EY7 / IFPC Increment 2 - Block 1 |

| Event Name | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | FY 2024 | | | | FY 2025 | | | | FY 2026 | | | | FY 2027 | | | | | | | | | | | |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|-----------|---|---|---|---------|---|---|---|--|---|---|---|---|---|---|---|----------|--|--|--|--|--|--|--|
| | 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 | | | | | | | | |
| IFPC Low Rate Initial Production (LRIP) | | | | | | | | | | | | | IFPC LRIP | | | | | | | | | | | | | | | | | | | | | | | |
| IFPC Initial Operational Test & Evaluation (IOT&E) | | | | | | | | | | | | | | | | | | | | | | | | | IFPC IOT&E | | | | | | | | | | | |
| IFPC Full Rate Production (FRP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | IFPC FRP | | | | | | | |
| IFPC First Unit Equipped (FUE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | IFPC FUE | | | | | | | |
| IFPC Directed Energy (DE) team established | | | | | | | | | | | | | | | | | | | | | IFPC Directed Energy (DE) team established | | | | | | | | | | | | | | | |
| IFPC DE – High Energy Laser (HEL) & High Powered Microwave (HPM) Mgt Trans to PO | | | | | | | | | | | | | | | | | | | | | | | | | IFPC DE – HEL & HPM transitioned to IFPC Product Office | | | | | | | | | | | |
| IFPC DE – HEL Prototyping | | | | | | | | | | | | | | | | | | | | | | | | | IFPC DE – HEL Prototyping | | | | | | | | | | | |
| IFPC DE – HPM Prototyping | | | | | | | | | | | | | | | | | | | | | | | | | IFPC DE – HPM Prototyping | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army | | Date: April 2022 |
| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / <i>Indirect Fire Protection Capability Inc 2 - Block 1</i> | Project (Number/Name) EY7 / <i>IFPC Increment 2 - Block 1</i> |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| National Defense Authorization Act for FY2019 directed IFPC Report to Congress | 1 | 2019 | 1 | 2019 |
| Interim CMD Directed Requirement - Interim CMD System | 2 | 2019 | 2 | 2019 |
| Interim CMD Title 10, Para 2373 Contract Award for Interim Iron Dome Btrys 1&2 | 4 | 2019 | 4 | 2019 |
| Interim CMD Capability Integration and Test Activities | 1 | 2020 | 4 | 2020 |
| Interim CMD Interoperability development and testing | 4 | 2020 | 2 | 2022 |
| Interim CMD 1st IDDS-A Battery Delivery | 1 | 2021 | 1 | 2021 |
| Interim CMD 2nd IDDS-A Battery Delivery | 2 | 2021 | 2 | 2021 |
| Interim CMD Live Fire Performance Testing | 4 | 2021 | 4 | 2021 |
| Interim CMD Safety Confirmation/Capabilities & Limitations Testing | 4 | 2021 | 4 | 2021 |
| Interim CMD Urgent Materiel Release for Deployment of Batteries 1&2 | 4 | 2021 | 4 | 2021 |
| Interim CMD Interoperability Assessment | 1 | 2022 | 3 | 2022 |
| IFPC MDA Decision Point for Middle Tier Acquisition Strategy | 4 | 2021 | 4 | 2021 |
| IFPC OTA (Single Vendor) for Prototype development completion and manufacturing | 4 | 2021 | 3 | 2024 |
| IFPC System Testing (Component/System Qual & DT/Live Fire Testing) | 2 | 2022 | 4 | 2023 |
| IFPC Operational Demonstration | 4 | 2023 | 1 | 2024 |
| IFPC prototype Combat Capability Units | 4 | 2023 | 4 | 2023 |
| IFPC Production Decision | 3 | 2024 | 3 | 2024 |
| IFPC Low Rate Initial Production (LRIP) | 3 | 2024 | 1 | 2026 |
| IFPC Initial Operational Test & Evaluation (IOT&E) | 3 | 2025 | 4 | 2025 |
| IFPC Full Rate Production (FRP) | 1 | 2026 | 1 | 2033 |
| IFPC First Unit Equipped (FUE) | 3 | 2026 | 3 | 2026 |
| IFPC Directed Energy (DE) team established | 3 | 2023 | 3 | 2023 |

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army **Date:** April 2022

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| Appropriation/Budget Activity 2040 / 5 | R-1 Program Element (Number/Name) PE 0605052A / <i>Indirect Fire Protection Capability Inc 2 - Block 1</i> | Project (Number/Name) EY7 / <i>IFPC Increment 2 - Block 1</i> |
|--|--|---|

| Events | Start | | End | |
|--|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| IFPC DE ? High Energy Laser (HEL) & High Powered Microwave (HPM) Mgt Trans to PO | 4 | 2024 | 4 | 2024 |
| IFPC DE ? HEL Prototyping | 4 | 2024 | 4 | 2028 |
| IFPC DE ? HPM Prototyping | 4 | 2024 | 4 | 2028 |

Note
 CMD: Cruise Missiles Defense
 FUE: First Unit Equipped
 FY: Fiscal Year
 IFPC: Indirect Fire Protection Capability
 HEL: High Energy Laser
 HPM: High Powered Microwave