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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603838D8Z / <i>Defense Innovation Acceleration (DIA)</i>
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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	0.000	284.902	257.110	165.798	-	165.798	221.265	248.305	252.223	258.755	Continuing	Continuing
730: <i>Concepts and Capabilities</i>	0.000	204.902	182.289	124.353	-	124.353	176.927	180.557	184.426	188.115	Continuing	Continuing
731: <i>Innovation and Modernization</i>	0.000	80.000	74.821	41.445	-	41.445	44.338	67.748	67.797	70.640	Continuing	Continuing

Note

New Start (Y/N): No.

FY 2025 Funding will be transferred to Project 730 Concepts and Capabilities during the year of execution and budgeted in this project beginning in FY 2026.

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to Build a Sustainable and Long-Term Advantage, and Build a Resilient Joint Force and Defense Ecosystem.

The Defense Innovation Acceleration (DIA) program accelerates innovative capability prototypes (TRL 5-7) that address cross-Service/cross-domain military needs in the 24-to-36-month timeframe. Prototype projects are identified through an ideation process that involves Defense-wide participation and detailed physics-based mission analysis to identify impactful capability requirements. Operational and strategic capability gaps are identified through Joint Warfighting Concept aligned mission analysis. DIA focuses on providing prototype systems in support of multi-component experimentation, informing programs of record and validating requirements. DIA prototypes will be evaluated in operationally relevant demonstrations in conjunction with Office of the Assistant Secretary of Defense for Mission Capabilities (OASD(MC)) experimentation events. DIA will also harness small business and non-traditional performer innovation that creates prototypes to address DoD's modernization challenges.

B. Program Change Summary (\$ in Millions)

	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	293.504	257.110	265.225	-	265.225
Current President's Budget	284.902	257.110	165.798	-	165.798
Total Adjustments	-8.602	0.000	-99.427	-	-99.427
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-8.570	-			
• Program Adjustments	-	-	-99.427	-	-99.427

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0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	PE 0603838D8Z / <i>Defense Innovation Acceleration (DIA)</i>

• Cancelled Account -0.032 - - - -

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 730: *Concepts and Capabilities*

Congressional Add: *High-Altitude Optical Reconnaissance Unit and Sensor (HORUS)*

Congressional Add: *Open-Source Intelligence (OSI)*

Congressional Add Subtotals for Project: 730

Congressional Add Totals for all Projects

FY 2023	FY 2024
20.000	-
3.000	-
23.000	-
23.000	-

Change Summary Explanation

The overall FY 2025: Program reduction of \$99.427 million consists of the following:

- +\$0.464 million for Economic Assumptions
- \$6.927 million realigned funds to the Multi-Domain Joint Operations (MDJO) PE 0604791D8Z, Project 122, to identify the most promising technologies and transition pathways
- \$2.583 million was applied to meet DoD overall funding reductions, which were spread to mitigate impact
- \$26.381 million Department Science and Technology
- \$64 million realigned to Service RDT&E and Procurement PEs to fund DoD selected efforts needed to meet operational needs

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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
<i>730: Concepts and Capabilities</i>	0.000	204.902	182.289	124.353	-	124.353	176.927	180.557	184.426	188.115	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Concepts & Capabilities (C&C) focuses on executing advanced operational prototypes with the joint Services and Combatant Commands (CCMD). C&C validates warfighting concepts and accelerates new capabilities faster than the traditional defense acquisition process. The uniqueness of C&C is in the joint collaboration and the funding flexibility of the Title-10 investment. C&C emphasizes delivering major system components and/or single fieldable systems for joint warfighting application, while informing Service programs of record. The delivery of these operational prototypes are typically within 24 to 36 months.

C&C drives prototyping investments to address the Joint warfighter’s most pressing operational capability gaps and accelerates new capability development in conjunction with the joint Services and CCMD. Based on established needs, C&C sponsors joint efforts to mature operational prototypes through approved developmental portfolios. Office of the Under Secretary of Defense for Research & Engineering (OUSD(R&E)) portfolio managers provide government oversight and execute collective development with operational leads from the Service and CCMDs; pool technical resources from the Service research, engineering laboratories, program executive offices; leverage academia and industry expertise as needed; require Service cost-sharing partnerships; and execute the necessary planning steps for future transition early within the developmental life cycle. This execution strategy represents a time-proven catalyst for collaborative development and accelerates delivery of operational prototypes to the joint warfighter. In FY 2023, several efforts transferred from the Joint Capability Technology Demonstration (JCTD) program to the new Defense Innovation Acceleration (DIA) program, as they continue to boost innovation and increase military competitive advantage in the Indo-Pacific area of operations.

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

	FY 2023	FY 2024	FY 2025
Title: Brutus	10.000	-	-
Description: Brutus leverages recent technological advancements to provide indication and warning (I&W) and to disrupt adversarial Command, Control, Computing, Communications, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISR) capabilities. This solution supports Joint Force freedom of maneuver at all echelons. In FY 2023 (last year of funding), Brutus awarded the contract for prototype development. In FY 2024, Brutus will produce, test, and demonstrate a prototype system in an operationally-relevant scenario. Brutus will complete as a project in FY 2024 and transition to a classified Program Executive Office for Intelligence, Electronic Warfare, and Sensors (PEO IEW&S) program in support of improved command and control, data back haul, situational awareness, and exploitation tools.			
Title: Grandstand	5.500	-	-
Description: Grandstand leverages recent technological advancements to provide indication and warning (I&W) to U.S. Indo-Pacific Command (USINDOPACOM) Commanders and U.S. Forces in a timely manner and tracking Command, Control,			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>Computing, Communications, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISR). Additional information is at higher classifications. In FY 2023 (last year of funding), Grandstand tested and demonstrated a prototype system in an operationally relevant scenario for level of effort one (1). In FY 2024 Grandstand will develop and laboratory demonstrate persistent access to threat C5ISR, demonstrate indication and warning (I&W) capabilities, reduce latency preparatory near real-time data processing capabilities, and identify platform capabilities to access peer competitor C5IRST. Grandstand will complete as a project in FY 2024, transition to the U.S. Navy's Battlespace Awareness and Information Operations (PMW 120), and establish an operational environment with Naval Surface Warfare Command to provide downstream connectivity into Missile Defense Agency (MDA) architecture for I&W and target continuity as well as connectivity into Link-16 and the Integrated Broadcast System for locational updates.</p>				
<p>Title: Iron Quest</p> <p>Description: Iron Quest leverages recent technological advancements to provide indication and warning (I&W) to U.S. Indo-Pacific Command (USINDOPACOM) Commanders, U.S. Forces and disrupting adversarial Command, Control, Computing, Communications, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISR) capabilities. Additional information at a higher classification. In FY 2023 (last year of funding), Iron Quest successfully tested, and performed an operational demonstrated prototype system in an operational relevant scenario in fiscal year 2023. In FY 2024, Iron Quest will conduct an operational demonstration and complete as a project, and transition to a classified Program Executive Office for Intelligence, Electronic Warfare, and Sensors (PEO IEW&S) program in support of USINDOPACOM.</p>		4.500	-	-
<p>Title: Joint Targeting Support (JTS)</p> <p>Description: JTS will reduce the sensor-to-shooter timeline and increase the rate of target identification and engagements by leveraging resources across services, agencies, and coalition partners. JTS will connect sensors, shooters and data across the Services to effectively support targeting cells at all echelons to provide capabilities in support of Joint All-Domain Command and Control (JADC2). JTS will automate Joint target development for deep fires missions by developing and integrating machine learning analytics with Joint- and Service-specific information systems and Intelligence, Surveillance, and Reconnaissance (ISR) networks. JTS will simultaneously build and refine numerous user- and machine-nominated target decks by employing distributed processing and fusion analytics and augmenting the Joint Automated Deep Operations Coordination System (JADOCS) to improve the target development process across echelons and services. In FY 2023 (last year of funding), JTS continued developing user interfaces, software, and correlation of Joint forces data, resulting in a successful technical demonstration. In FY 2024, JTS plans to deliver a fully functioning visualization system, complete an operational demonstration, and conduct a military utility assessment. JTS will transition its software to Project Manager for Intelligence Systems & Analytics (PM IS&A) and the U.S. Navy's Battlespace Awareness and Information Operations (PMW 120) program office.</p>		5.655	-	-
<p>Title: Lucas</p>		4.000	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Description: Lucas is a cost-effective unmanned prototype in development for deployment at scale. FY 2023 is Lucas' only year of funding. In FY 2024, Lucas will complete as a project and transition to classified U.S. Navy Engineering Logistics Office (NELO) program. Additional information is classified.				
Title: Passive Optical Spectrum Control and Exploitation (POSCE) Description: POSCE uses innovative sensing methods intended to augment persistent intelligence, surveillance, and reconnaissance (ISR) in maritime environments and along terrestrial chokepoints. Additionally, novel sensing provides penetrating ISR in response to operational challenges in anti-access/area-denial environments. In FY 2023 (last year of funding), POSCE conducted a technical demonstration. In FY 2024, POSCE will conduct an operational demonstration and military utility assessment, and transition the prototypes to Services operating in the U.S. Central Command (USCENTCOM), U.S. Indo-Pacific Command (USINDOPACOM), and U.S. European Command (USEUCOM) areas of responsibility to acquire mission data and demonstrate mission relevance.		2.640	-	-
Title: Payload Prototyping to Support Stratospheric Experimentation Description: The Stratospheric Experimentation effort includes the development and prototyping of stratospheric payloads that can operate on a variety of high-altitude platforms. In FY 2023, this effort developed prototype payloads for use in stratospheric experimentation, completed reports, and worked with Service leads to transition.		4.400	-	-
Title: Raging Parakeet (RP) Description: Combatant Commands (CCMD) lack the ability to rapidly analyze vast amounts of Intelligence, Surveillance, and Reconnaissance (ISR) data to quickly locate hard-to-find targets with a high degree of accuracy. RP utilizes advanced artificial intelligence, machine learning algorithms, and sensor fusion to decrease manpower requirements and simultaneously increase the accuracy of high-priority target identification. In FY 2023 (last year of funding), the U.S. Air Force handed over technical lead to the Naval Research Laboratory (NRL). In FY 2024, Raging Parakeet will gather needed data sets, develop an initial set of algorithms, establish open architecture standards, complete standards development, develop a prototype processor based on the project's standards, create fusion and cross-cueing algorithms, perform integration of the payload into the host aircraft, and perform a technical demonstration, an operational demonstration, and a military utility assessment. Raging Parakeet's algorithms will transition to an existing Naval Air Systems Command (NAVAIR) program of record, National Geospatial Intelligence Agency (NGA), and the Chief Digital and Artificial Intelligence Office (CDAO).		5.264	-	-
Title: Reliable Transmission over HF (NORTH) Description: NORTH focuses on command, control, communications, computers, intelligence, surveillance, and reconnaissance and fully-networked command, control and communications (FNC3) modernization. NORTH integrates the Navy's wideband high		0.489	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
frequency (HF) mesh networking system and the Air Force’s digital HF radios and repeaters to optimize joint information transport datalinks based on sense and respond (S&R) of the spectral environment. All three systems combined provide an enterprise solution that increases operational effectiveness of resilient command, controls and communication in anti-access/ area-denial environments. In FY 2023 (last year of funding), NORTH will conduct an operational demonstration after integrating roll-on/roll-off equipment suites on joint Service fixed and mobile platforms. The NORTH project completes in FY 2023.				
Title: Stratospheric Capability Architecture Development (SCAD) Description: SCAD supports the National Defense Strategy by delivering materiel solutions to the United States Army (USA) and United States Special Operations Command (USSOCOM) for acquisition and sustainment. SCAD develops, demonstrates, and assesses an unmanned aerial systems platform with stratospheric payloads that provide ground moving target indicator synthetic aperture radar, signals intelligence, and communications relay capabilities. In FY 2023, SCAD executed its military utility assessment and transitioned to the U.S. Army and USSOCOM.		2.100	-	-
Title: Aerial Port of the Future (APoF) Description: Aerial ports and air transportation expeditionary operations are constrained by poorly performing and unlinked Information Technology (IT) systems, outdated command, control, and communications networks, and physical handling of critical classes of supply. To solve these problems, Aerial Port of the Future (APoF) develops, integrates, and tests emerging capabilities at aerial ports by providing a logistics common operating picture for planning, processing, and managing joint force cargo; an integrated automated system to manage personnel, cargo, and munitions; and man/unmanned materiel handling equipment to rapidly load sustainment to global air mobility assets. In FY 2023, APoF completed a spiral for automated systems with portable computing, advanced the spiral for the integration of autonomy and machine learning with advanced data analytics, and conducted technical and limited operational demonstrations. FY 2024 Plans: In FY 2024, APoF plans to conduct its military utility assessment and transition the automated infrastructure tools, hardware/ software residuals, and robotic material handling equipment systems through Air Mobility Force Center of Excellence to Elmendorf Air Force Base, Alaska; Joint Base McGuire-Dix, New Jersey; Pope Army Airfield, North Carolina; and U.S. Indo-Pacific (USINDOPACOM) expeditionary locations. FY 2024 to FY 2025 Increase/Decrease Statement: APoF will complete in FY 2024.		4.200	2.750	-
Title: Collaborative Naval Information Warfare Systems Command Cyber Operations (N-Cyber)		0.347	1.500	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024
<p>Description: N-Cyber is an offensive capability that enables warfighters to create non-kinetic effects (NKE) on traditionally hard-to-affect adversary systems from air, land, or sea through the integration of space, cyber, and electronic warfare. In FY 2023, N-Cyber completed development of various non-kinetic techniques and executed multiple successful technical demonstrations.</p> <p>FY 2024 Plans: In FY 2024, N-Cyber plans to conduct operational demonstrations and a military utility assessment in an operationally-relevant environment. Transition is expected to be led by the 16th Air Force and executed through the Air Force Life Cycle Management Center (AFLCMC).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: N-Cyber will complete in FY 2024.</p>			
<p>Title: Enabling Development and Experimentation Focus Area</p> <p>Description: Project will conclude in FY 2024. Impact to all services and USINDOPACOM. Enables rapid development of technologies identified by ASD(MC) and OUSD(R&E) leadership for inclusion in specified experimentation venues.</p> <p>FY 2024 Plans: Sponsor and execute rapid development of technologies identified by ASD(MC) and OUSD(R&E) leadership for inclusion in specified experimentation venues in FY 2025. Project will conclude in FY 2024.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>		0.000	13.045
<p>Title: High-Frequency Silent Transmission over Resilient Mesh (HF STORM)</p> <p>Description: High-Frequency Silent Transmission over Resilient Mesh (HF STORM) refines the Department of Defense (DoD)'s Fully-networked Command, Control, and Communications (FNC3) and high frequency (HF) roadmaps to mature and layer several key technologies. These developments combine to increase transmission directivity while minimizing detection susceptibility in tactical, relocatable, and expeditionary ground and aerial nodes that link with a large ground-based array to provide global and secure reach in a contested or denied environment. In FY 2022, HF STORM conducted a technical demonstration of ground components. In FY 2023 HF STORM will conduct a second technology demonstration with fully integrated architecture.</p> <p>FY 2024 Plans: In FY 2024 (last year of funding), HF STORM plans to perform an operational demonstration and military utility assessment and transition the fieldable prototype for integration into current and next generation programs: For the U.S. Army, PRC-160 HF radio</p>		3.800	5.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
software updates and small-scale, tactically-deployable HF hub will transition to U.S. Army Europe and Africa (USAREUR-AF); for the U.S. Marine Corps, the Advantaged Node Processor Array (ANPA) half-duplex repeater prototype will transition to select platform programs of record. FY 2024 to FY 2025 Increase/Decrease Statement: HF STORM will complete in FY 2024.				
Title: Joint Undersea Surveillance and Targeting (JUST) Description: JUST will deliver a new capability to monitor changes to the undersea battlespace and seabed infrastructure by demonstrating intelligent autonomous unmanned undersea vehicle (UUV)-enabled target recognition and change detection capability enabling secure Joint Force offensive and defensive operations. Combatant Commands (CCMD) require JUST capabilities for force protection and operational plan execution. In FY 2023, JUST developed and tested automatic target recognition (ATR) and automatic change detection (ACD) capabilities, assessed surrogate UUVs for testing in an operationally-relevant environment, and completed its first technology demonstration. FY 2024 Plans: In FY 2024, JUST plans to conduct three additional technology demonstrations, an operational demonstration, and a military utility assessment. JUST technologies will then transition to PMS 394 (Naval Sea Systems Command Planned Maintenance Systems), PMS 406 (Advanced Undersea Systems and Unmanned Maritime Systems), and the Office of Naval Research (ONR) Full-Spectrum Undersea Warfare Project. FY 2024 to FY 2025 Increase/Decrease Statement: JUST will complete in FY 2024.		1.387	4.771	-
Title: Kinetic Calypso Description: Kinetic Calypso is a late FY 2023 new-start project that will upgrade and extend the operational life of U.S. undersea weapons stockpiles, through novel low-cost employment methods of sea mines and torpedoes capable of delivering deterrent and mission relevant effects in future conflicts. The project's results will support integration of foreign modular minelaying systems into U.S. or partner-nation capabilities and the defense industrial base to complement U.S. Pacific Fleet's (PACFLT) Hellscape concept. FY 2024 Plans: In FY 2024, Kinetic Calypso will adapt sea mines and torpedos for new applications and will include technical demonstrations of the weapons. FY 2025 Plans:		0.050	9.052	10.527

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Kinetic Calypso will perform at sea demonstrations to establish key performance parameters (KPP), demonstrate kinetic effects, and select upgraded weapons. This project will discontinue under the DIA line and will realign under a Maritime domain functional area in the out years. FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for Kinetic Calypso increases to support operational demonstration.				
Title: Logan Description: Project information at higher classification. FY 2024 Plans: Logan will transition to Navy Cyber Warfare Development Group (NCWDG). Additional information is classified. FY 2024 to FY 2025 Increase/Decrease Statement: Logan will complete in FY 2024.		7.000	7.000	-
Title: Maritime Platform ORCAstrate Description: Maritime Platform ORCAstrate is a late FY 2023 new-start project that will demonstrate and experiment with five novel and affordable maritime platforms that are designed to provide flexible payload delivery from unmanned platforms. Maritime Platform ORCAstrate will support future experimentation in a classified area of operations (AO), complement PACFLT's employment of lethal effects in high-end conflicts at scale, and complicate and degrade an adversary's ability to prioritize and process maritime targets. Maritime Platform ORCAstrate platforms will be equipped with modular common architectures for unmanned surface vehicle navigation controls, sensors, and resilient communications at range or in contested environments. FY 2024 Plans: In FY 2024, Maritime Platform ORCAstrate will develop command and control systems for the unmanned platforms and will perform technical demonstrations of the platforms at sea. FY 2025 Plans: In FY 2025 the project will conduct an operational demonstration, produce a technical data package (TDP), test results, hardware for effectors, platform integration equipment, autonomy, sensors, and communications. This project will discontinue under the DIA line and will realign under a Maritime domain functional area in the out years. FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for ORCAstrate increases to support operational demonstration.		0.050	7.750	8.250
Title: QuickSink		6.495	2.213	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: QuickSink is developing technologies to reduce the number of air assets required for anti-surface warfare (ASuW) operations by increasing ASuW weapon lethality and standoff while decreasing costs. The program is also using the joint direct attack munition as an inexpensive integration and testing platform for QuickSink technologies. In FY 2023, the program successfully demonstrated the seeker performance in a series of flight tests with inert weapons.</p> <p>FY 2024 Plans: In FY 2024, QuickSink will complete the operational demonstration and military utility assessment and transition the asset to Air Force Lifecycle Management Center (AFLCMC) Direct Attack Division (EBD) for further development, qualification, and production as a Joint Direct Attack Munition (JDAM) seeker component.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: QuickSink will complete in FY 2024.</p> <p>Title: Samurai</p>			
<p>Description: In support of Combatant Commands' (CCMD) focus on Denied, Degraded, Intermittent, and Limited (DDIL) communications environments, U.S. Indo-Pacific Command (USINDOPACOM), in partnership with the National Geo-Spatial Intelligence Agency (NGA), has begun a series of experiments focused on the delivery of geospatial intelligence (GEOINT) and intelligence products from the continental U.S. (CONUS), through regional and sub-regional, and down to the tactical operations layer. In FY 2023, as part of USINDOPACOM's DDIL exercise series, NGA collaborated with USINDOPACOM Joint Staff and two theater units to deploy two small form factor hardware sets and one capability subject matter expert to two continents and began the iterative process of identifying mission requirements and capability gaps. Additionally, one theater-level GEOINT asset was deployed outside CONUS in support of inter-theater nodal data dissemination strategy.</p> <p>FY 2024 Plans: In FY 2024, Samurai will deploy an additional theater-level GEOINT asset and continue additional CCMD DDIL exercises to develop tactical and operational-level GEOINT templates for small form factor hardware leveraging multi-spectral resilient transport and GEOINT organizational intelligence workflow. Samurai will transition as a leave-behind capability through a Memorandum of Agreement (MOA) to a to-be-determined host. An NGA Warfighter Support office will assist and advise the Joint Requirements Oversight Committee (JROC) in requirements determination for robust edge-node development in support of Joint forces and Allied partners in the INDOPACOM area of operations.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Samurai will complete in FY 2024.</p> <p>Title: Scout</p>	8.000	8.000	-
	1.931	2.500	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: Scout will build attributable, cost effective, long-distance, autonomous low-profile vehicles to accomplish a variety of missions. The platform will minimize detection from a variety of sensors using low observable attributes. In FY 2023, Scout implemented hardware and software updates and produced other key deliverables for prototype creation.</p> <p>FY 2024 Plans: In FY 2024, Scout will finalize integration of hardware and software updates and conduct an operational assessment of the integrated systems and kinetic and non-kinetic payloads.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Scout will complete in FY 2024.</p>			
<p>Title: Sea Archer</p> <p>Description: Sea Archer will hold key fixed military systems at risk at the onset of conflict. Further details of the project are classified. In FY 2023, Sea Archer completed system requirements analysis and development of operating concepts and objectives for the operational demonstration. Sea Archer also completed its first technical demonstration.</p> <p>FY 2024 Plans: In FY 2024 (last year of funding), Sea Archer will integrate hardware and software aboard the host platform and conduct an operational demonstration and concurrent military utility assessment on an instrumented range. In FY 2025, Sea Archer will transition to the Undersea Weapons Program Office (PMS 404).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Sea Archer will complete funding in FY 2024.</p>	1.750	2.740	-
<p>Title: Signal of Opportunity Receiver (SORcer) Enable Ionospheric Modeling (SEIM)</p> <p>Description: By fielding SORcer systems in forward operating locations, SEIM delivers necessary high frequency (HF) propagation data to enable operational awareness of the electromagnetic operating environment. Artificial intelligence (AI) and deep neural network (DNN) techniques are utilized to enable autonomous use of SORcer systems to support better targeting and decision-making for the joint warfighter. In FY 2023, SEIM fielded additional SORcer systems in the U.S. Indo-Pacific Command (USINDOPACOM) Area of Responsibility (AOR) and tested and validated SORcer technologies. SEIM also successfully completed its first technical demonstration.</p> <p>FY 2024 Plans:</p>	1.410	1.780	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024		
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603838D8Z / <i>Defense Innovation Acceleration (DIA)</i>	Project (Number/Name) 730 / <i>Concepts and Capabilities</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>In FY 2024, SEIM will conduct an operational demonstration and complete a military utility assessment. SEIM technologies will transition to the Military Applications of Space Environment (MASE) program of record at U.S. Space Force Space and Missile System Center (USSF SMC).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: SEIM will complete in FY 2024.</p>				
<p>Title: Surface-Launched Advanced Munition Datalink (SLAMD)</p> <p>Description: SLAMD develops and integrates a tactical projectile data link (PDL) into a gun-launched, maneuvering projectile to enable long-range precision fires in a GPS-denied environment. The data link enables communications between the projectile and a ground-based tracking radar to enable mid-course corrections to the projectile's path. The data link is also an enabler for ground-to-round and round-to-round communications for tactical applications, such as swarming. In FY 2023, SLAMD completed system and subsystem technical requirements generation, initial PDL design and development, PDL interface control document (ICD) development, radar mode design, and assessment metrics development.</p> <p>FY 2024 Plans: In FY 2024, SLAMD will conduct PDL integration into projectile airframe for initial technical demonstration; complete PDL-to-Radar integration activities, finalize the ICD, and demonstrate Radar-to-PDL communications in a lab environment; develop test documentation and analysis on performance expectations. SLAMD will conduct a final technical demonstration, an in-flight operational demonstration, and a military utility assessment. The SLAMD PDL design and ICD will transition to Program Executive Office (PEO) Missiles and Space and Joint Program Executive Office (JPEO) Armaments and Ammunition. The PDL will also be used in the Strategic Capabilities Office (SCO) Hypersonic Gun Weapons System (HGWS) prototype.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: SLAMD will complete in FY 2024.</p>		2.495	3.886	-
<p>Title: Turul</p> <p>Description: Turul provides scalable, machine learning-enabled algorithms to find and fix fleeting targets to accelerate kill chain activities against time-sensitive targets. Information from these capabilities provides situational awareness to Combatant Command (CCMD) operators and can be used to tip and cue other sensor systems. Maritime moving target indicator, ground moving target indicator, and air moving target indicator information is needed by the CCMDs in quantities and timelines that are not currently being met by existing means. In FY 2023, Turul planned and executed multiple tabletop and technical demonstrations.</p> <p>FY 2024 Plans:</p>		1.200	1.200	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>In FY 2024, Turul plans to execute its military utility assessment and transition into a U.S. Space Force (USSF) Space Systems Command (SSC) program of record that utilizes the Global Unification Environment (GLUE), which CCMD Joint Intelligence Operations Centers (JOIC) use.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Turul will complete in FY 2024.</p>				
<p>Title: Autonomous Multi-Domain Launcher (AML)</p> <p>Description: AML is developing and demonstrating an unmanned, cab-less, highly mobile, C-130 transportable prototype Long-Range Precision Fires (LRPF) launcher. The prototype launcher will be capable of leader-follower autonomy, drive-by-wire, and remote launcher turret and fire control operation. The prototype launcher will also be capable of handling/launching longer munitions (up to 20 feet in length) while remaining compatible with the current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) (13 feet in length). In FY 2023, AML successfully completed a reload experiment and plume effects testing.</p> <p>FY 2024 Plans: In FY 2024, AML will complete final system design, deliver a prototype vehicle, and conduct a live-fire demonstration.</p> <p>FY 2025 Plans: In FY 2025, AML will transition a developmental prototype and technical data package to the U.S. Army Combat Capabilities Development Command (DEVCOM) Aviation & Missile Center (AvMC).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: AML project costs decrease in FY 2025 as project shifts from development to completion of a comprehensive final report. AML will complete in FY 2025.</p>		3.200	3.000	1.700
<p>Title: Birdseye Yonder (BEYOND)</p> <p>Description: BEYOND matures and integrates advanced, photonic-based radiofrequency sensors will be integrated into existing U.S. European Command (USEUCOM) sensor networks for signals intelligence. The sensor technology is a 360-degree wideband passive geolocation, track, and target classification capability designed around a novel physically assisted wideband correlator technology. In FY 2023, BEYOND delivered a technical design and receiver hardware for a fixed site receiver.</p> <p>FY 2024 Plans: In FY 2024, BEYOND will a deliver a technical design for a mobile receiver, the mobile receiver hardware, and complete a technical demonstration.</p> <p>FY 2025 Plans:</p>		2.000	3.000	3.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
In FY 2025, BEYOND will conduct an operational demonstration and military utility assessment in support of a U.S. Air Force Europe (USAFE) air defense mission.				
<p>Title: Collaborative Artificial Intelligence (AI) for Predicting Enemy Course of Action (ECO) (CAPE)</p> <p>Description: CAPE is an Artificial Intelligence (AI)-enabled decision support software for predicting enemy course of action (ECO). CAPE introduces a unique Decision Centric Architecture (DCA) not currently found in fielded systems and advances symbolic plan recognition, semantic networks, and mixed-initiative reasoning that facilitate human-machine teaming while automating ignorance identification and request for information generation. In FY 2023, CAPE developed a software prototype, reusable software libraries, and a software development kit that accelerated third-party artificial intelligence integration.</p> <p>FY 2024 Plans: In FY 2024, CAPE plans to conduct a technical demonstration of a software prototype capable of operational use by the U.S. Space Force (USSF).</p> <p>FY 2025 Plans: In FY 2025, CAPE plans to deploy advanced capabilities to classified systems for military utility assessment. CAPE will transition to the USSF's Space Systems Command (SSC), with initial deployments focusing on the National Space Defense Center (NSDC) and leveraging the existing operational Integrated Solutions for Situational Awareness (ISSA) application tool suite and Development, security, and Operations (DevSecOps) processes to support iterative Joint Worldwide Intelligence Communication System (JWICS) deployments and refinement (approximately three releases per year).</p>		2.000	2.000	2.000
<p>Title: Correlating Order-of-Battle (OB) Movement Patterns for Learned Event Exploitation (COMPLEX)</p> <p>Description: COMPLEX is artificial intelligence and machine learning software that improves our ability to predict our adversaries' movements and operational activities. COMPLEX will have two main impacts on the Joint Warfighter capability: increasing warning capability against foreign military actions and increasing knowledge of activity patterns within, across, and between foreign units. In FY 2023, COMPLEX expanded the inventory of indicators and warnings support for multiple adversaries' military deployments while continuously updating knowledge databases on enemy deployment tactics, techniques, and procedures.</p> <p>FY 2024 Plans: In FY 2024, COMPLEX will expand its inventory of indicators and warnings support for multiple adversaries' military deployments while continuously updating knowledge databases on enemy deployment tactics, techniques, and procedures.</p> <p>FY 2025 Plans:</p>		2.100	2.750	2.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>In FY 2025, COMPLEX plans to harden software and submit for accreditation and coordinate transition to a classified program of record and train users.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: COMPLEX project costs decrease in FY 2025 as project shifts from development to completion of a comprehensive final report. COMPLEX will complete in FY 2025.</p>				
<p>Title: Cross-Service Sensor Netting for Integrated Air and Missile Defense (CSSN)</p> <p>Description: CSSN is a late FY 2023 new-start project that will enable the distribution of air defense radar measurements between U.S. Army, U.S. Navy (USN), and U.S. Marine Corps (USMC) air defense networks to realize a new aspect of truly integrated air and missile defense (IAMD). CSSN will link the USN's Cooperative Engagement Capability, and, by extension USMC's Cooperative Tracking Network, to Army's Integrated Fire Control Network. The project will culminate with live-fire demonstrations of an Army intercept based on USN radar data and vice versa.</p> <p>FY 2024 Plans: In FY 2024, CSSN will conduct system integration lab predictive analysis, scenario development, risk assessment, and tactical code integration.</p> <p>FY 2025 Plans: In FY 2025, CSSN will conduct a live-fire exercise. USN and USMC will provide radar tracking data for an Army surface-to-air engagement of a simulated high-end threat.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Reduction in funding due to the completion of tactical code integration.</p>		0.045	8.015	6.850
<p>Title: HAYFINS</p> <p>Description: HAYFINS is a ground-based system supporting space and autonomy modernization priorities by fusing protection technologies, artificial intelligence/machine learning, and legacy systems enabling freedom of maneuver in support of multi-domain operations. In FY 2023, HAYFINS completed drafting its Implementation Directive and Management Plan.</p> <p>FY 2024 Plans: In FY 2024, HAYFINS will design and develop an initial prototype for demonstration and assembly.</p> <p>FY 2025 Plans:</p>		2.963	4.800	5.400

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>In FY 2025, HAYFINS will complete its final prototype and hardware/software package and conduct a military utility assessment. HAYFINS will transition to the U.S. Army's Program Executive Office for Intelligence, Electronic Warfare, and Sensors (PEO IEW&S).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: HAYFINS project costs increase in FY 2025 as project shifts from development to completion of a comprehensive final report. HAYFINS will complete in FY 2025.</p>				
<p>Title: Joint Radiant Touchstone (J-RTS)</p> <p>Description: Joint Warfighters require a vulnerability assessment tool designed to enable warfighters with freedom of maneuver and freedom of action. The J-RTS tactical software tool will provide warfighters with freedom of maneuver, function as a key offensive warfare enabler, and provide awareness for disaggregated/disadvantaged users. J-RTS will scale into a Joint Force capability supporting warfighters across all theaters by sharing data as well as planning details once the tool is deployed to theater assets. Further technical details are classified. In FY 2023, J-RTS completed a successful project kick-off and began technology development efforts.</p> <p>FY 2024 Plans: FY 2024 project schedule and deliverable are classified.</p> <p>FY 2025 Plans: FY 2025 project schedule and deliverable are classified. J-RTS will transition to the U.S. Navy's Battlespace Awareness and Information Operations (PMW 120) Ship's Signal Exploitation Equipment Increment Foxtrot (SSEE INC F) program of record, as well as a U.S. Space Force (USSF) Space Systems Command (SSC) program of record utilizing a web version of the Integrated Solutions for Situational Awareness (ISSA).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: J-RTS project costs increases in FY 2025 as project shifts from development to completion of a comprehensive final report. J-RTS will complete in FY 2025.</p>		1.200	1.695	1.730
<p>Title: Low-Altitude Future Vertical Take-off and Landing (VTOL) Long-Range Attack Missile (LRAM)</p> <p>Description: LRAM builds upon L3Harris' Red Wolf air-launched unmanned air vehicle (UAV). Specifically, the C&C project develops a launcher and control interface for vertical takeoff and landing (VTOL) aircraft, kinetic payload, command and control architecture, and a seeker for autonomous over-the-horizon engagements. Most of the aforementioned is extensible to other aircraft, to include unmanned aircraft. This weapon system concept significantly extends the lethal range of VTOL-launched weapons. Moreover, outfitting the VTOL fleet of tactical aircraft (H-1, H-60 series, AH-64, and Joint Future Vertical Lift) with this</p>		2.000	3.000	4.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>weaponized UAV dramatically increases the number of aircraft available for over-the-horizon strike. In FY 2023, LRAM delivered an AH-1Z assessment for software and hardware development and integration requirements.</p> <p>FY 2024 Plans: In FY 2024, LRAM will refine the digital architecture (seeker and data link), develop a kinetic warhead, and conduct a live-fire test.</p> <p>FY 2025 Plans: In FY 2025, LRAM will conduct an operational demonstration, finalize a Capability Development Document (CDD), and transition to the AH-1Z helicopter program of record (AH-1Z) and future U.S. Marine Corps' Vertical Take Off and Land Family of Systems (VTOL FoS) at Headquarters, U.S. Marine Corps (HQMC) Capabilities Development Directorate (CDD).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: LRAM project costs increase in FY 2025 for operational flight demonstration, transition planning, and completion of final demonstration report. LRAM will complete in FY 2025.</p>				
<p>Title: Prototyping Development Efforts to Fill Identified Gaps</p> <p>Description: The Under Secretary of Defense for Research & Engineering (USD(R&E)) and the Assistant Secretary of Defense for Mission Capabilities (ASD(MC)) identified several technology projects for accelerated development to fill identified gaps. These include Technological Readiness Exercise (TRES), Bandit, Blue Shield, Carbon Mine, Contested Logistics (CL) Acceleration, Cyber Shield Coalition, Denied Area Operations (DAO), Diamond Shield Coalition, Familiar Relative, Pacific Ecosystem for Cyber (PeCoC) Acceleration, Sandals, Unmanned Port System (UPS), Joint Explosives and Propellant Prototyping Project (JEP3L), Rapid Employment Explosive Formations (REEF), and various decoys.</p> <p>FY 2024 Plans: Initiate prototype development in order to participate in future experimentation venues to fill unforeseen Service capability gaps. Additional information can be provided in a classified brief.</p> <p>FY 2025 Plans: Initiate prototype development in order to participate in future experimentation venues. Additional information can be provided in a classified brief.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>		62.541	46.482	19.535
<p>Title: Rapid Large Area Clearance (RLAC)</p>		1.800	5.400	4.800

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: RLAC rapidly conducts large area clearance of ports and airfields from multiple explosive threats to enable access, maneuver, and protection for multi-domain operations to ensure that critical air and seaports of debarkation and ground lines of communication are tenable to support joint fires and logistics in contested environments. Specifically, RLAC will develop and integrate autonomous small Unmanned Aerial Systems (sUAS) and Unmanned Ground Vehicles (UGV) equipped with automatic target recognition to rapidly survey, detect, identify, and map both surface and buried unexploded explosive ordnance (UXO), and then use lasers to neutralize sub-munitions at stand-off distances. In FY 2023, RLAC built, integrated, and tested subsystem prototypes; developed standoff neutralization of sub-munitions; and developed cooperative autonomy, target recognition and deep detection.</p> <p>FY 2024 Plans: In FY 2024, RLAC plans to develop surveying, detection, geolocation/mapping, and identification of all surface targets and further integrate the RLAC platforms with autonomy and communications capabilities.</p> <p>FY 2025 Plans: In FY 2025, RLAC plans to deliver final prototypes of the sUAS and UGV with autonomy and communications packages; demonstrate survey, detect, identify, and map of surface targets and standoff neutralization of submunition targets with a compact laser system; and deliver decision aid and training materials for an independent assessment. RLAC will transition to Naval Sea Systems Command's PMS-408 (Expeditionary Missions) via the Explosive Ordnance Disposal (EOD) Modernization Program.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: RLAC project costs decrease in FY 2025 as project shifts from development to completion of a comprehensive final report. RLAC will complete in FY 2025.</p>			
<p>Title: Red-Black Integrated Networking for Space Data Transport (RiBN-SDT)</p> <p>Description: RiBN-SDT is a late FY 2023 new-start project whose dynamic routing is a software-centric solution for resilient information sharing across crypto-partitioned networks, which provides flexibility and extensibility. This solution provides dynamic control of encrypted network clouds and individual data links and flows, enabling dynamic re-routing of information across the “black” network core, agnostic to the original configuration and pathway.</p> <p>FY 2024 Plans: In FY 2024, RiBN-SDT will generate actionable plans based on requirements review, complete critical design review of the proposed architecture, bench demonstrate technologies, and complete experimentation and data collection to fully validate networking software. Specific deliverables include system design description and experimentation results. This is the basis for</p>	0.050	1.450	4.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>the development of the initial airborne and ground router nodes for system demonstration during an operational exercise, e.g. NORTHERN EDGE 2025, RIM OF THE PACIFIC (RIMPAC) 2026.</p> <p>FY 2025 Plans: In FY 2025, RiBN-SDT will complete building and testing the RiBN-SDT prototypes, design and build the space-airborne-ground prototypes, and complete a military utility assessment to understand joint, large-scale deployment among the Services. Successful demonstration results will determine the specific program office to which the technology will transition, and the U.S. Space Force (USSF) will determine an appropriate acquisition strategy based on which program of record will maintain and sustain the technology.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increased costs due to the demonstration of RiBN-SDT router software on space-rated hardware system.</p>				
<p>Title: Scabbard Dome</p> <p>Description: Scabbard Dome is a late FY 2023 new-start project that will develop and demonstrate solutions for protecting standoff munition seekers against directed energy (DE) countermeasures and weapons by delivering DE-resilient and “alternative” low-size, weight, power, and cost (SWaP-C) materials for subsonic standoff weapon electro-optical/infrared/radiofrequency (EO/IR/RF) seekers and apertures. This capability will enable uninterrupted and lethal employment of standoff munitions against DE weapons and DE-protected targets. Scabbard Dome will also apply hardening or DE resistance to munitions to increase Department of Defense (DoD) weapon system effectiveness.</p> <p>FY 2024 Plans: In FY 2024, Scabbard Dome will develop key performance parameters (KPP), conduct baseline testing, and design a DE-hardened seeker. Additional details regarding the project schedule and deliverables are classified.</p> <p>FY 2025 Plans: In FY 2025, Scabbard Dome will build a prototype and perform hardened seeker validation testing. Additional details regarding the project schedule and deliverables are classified.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increased costs due to additional technical development and testing.</p>		0.040	1.960	4.750
<p>Title: ShadowCat</p> <p>Description: This project is part of the fully-networked command, control, and communications problem-set. Further details and descriptions of this project are classified. In FY 2023, ShadowCat completed a successful project kick-off and began technology development efforts.</p>		3.000	1.000	2.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: FY 2024 project schedule and deliverable are classified.</p> <p>FY 2025 Plans: FY 2025 project schedule and deliverable are classified.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: ShadowCat project costs increase in FY 2025 as project shifts from development to completion of a comprehensive final report. ShadowCat will complete in FY 2025.</p>				
<p>Title: Spatiotemporal Hybrid Open Optical Terminal for Enhanced Relay (SHOOTER)</p> <p>Description: SHOOTER is a late FY 2023 new-start project that will address gaps in multi-user secure, low-signature mission data information transport between airborne and Mid- and High-Altitude Platforms (HAP) and “at the halt” ground and expeditionary users. Current implementations of point-to-point free space optics (FSO) technology makes it difficult to aggregate nodes to service multiple users. SHOOTER will demonstrate a network of novel multi-user optical terminals to rapidly connect distributed forces in relevant operational environments. The optical spectrum does not require host nation frequency coordination, and the infrared bands greatly reduce blue force detectability. Access to optical spectrum increases the survivability and lethality of our distributed forces when they are operating in hostile and contested environments. This technology demonstration will accelerate deployment of a multi-user capability by three to five years.</p> <p>FY 2024 Plans: In FY 2024, SHOOTER will transition current lab-rated terminals to ground-to-ground testing, and develop, test, and demonstrate the terminal acquisition model. This model will acquire and move data between forward air platforms and disaggregated tactical ground users.</p> <p>FY 2025 Plans: In FY 2025, SHOOTER will iteratively test multi-node data transport and iterate capability for fast switching, while managing underlying dynamics of air platform and distributed ground users at the quick halt.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increased costs due to final risk reduction and military utility assessment in a global integrated exercise.</p>		0.050	1.950	3.000
<p>Title: Special Access Program (SAP) Assimilation and Integrated Operational Management</p> <p>Description: Continuously-funded effort. This effort is comprised of two execution essentials that support the entire C&C project code: (1) Special Access Program (SAP) Assimilation, and (2) Warfighter Integrated Operational Management. This effort executes a select number of highly-classified projects in areas such hypersonics and counter-hypersonics, time-sensitive</p>		14.200	14.650	14.650

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>targeting, electronic miniaturization, electronic countermeasures, advanced mobile / ad hoc network communications, space situational awareness, cyber, counter-ISR, decoys and deception, and persistence surveillance. This element funds SAP assimilation and synchronization across the Joint prototyping activities to ensure DIA efforts and investments remain fully SAP-informed while maintaining requisite security compliance. Liaising directly with the joint warfighter (e.g., Combatant Commands (CCMD) and Services) on prototype development is paramount to avoid unwanted duplication, propagate collaboration and achieve joint interoperability.</p> <p>FY 2024 Plans: Provide integrated operational management with joint Service and CCMD direct participation in shaping and executing operational prototypes. Sponsor and execute projects selected by the ASD(MC) and OUSD(R&E) leadership that are fully SAP-informed and synchronized. FY 2024 amount is a current estimate, but the actual amount will ebb and flow based on the number of projects identified in year of execution and their funding profiles in the out-years.</p> <p>FY 2025 Plans: Continue providing integrated operational management with joint Service and CCMD direct participation in shaping and executing operational prototypes. Sponsor and execute projects selected by the ASD(MC) and OUSD(R&E) leadership that are fully SAP-informed and synchronized. FY 2025 amount is a current estimate, but the actual amount will ebb and flow based on the number of projects identified in year of execution.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding stays consistent between years.</p>				
<p>Title: Unmanned Logistics Systems for Semi-Submersibles (ULS/SS)</p> <p>Description: ULS/SS is a late FY 2023 new-start project that will deliver an advanced low-cost, covert Joint Force logistics transport vehicle with cargo handling capability that provides tactical mobility and critical resupply from ship-to-shore and inter-island distribution networks beyond the Weapons Engagement Zone (WEZ), which is essential to executing Expeditionary Advanced Base Operations and Distributed Maritime Operations. ULS/SS will build upon previous phased low-profile vessel (LPV) efforts to develop, integrate, and test the Material Handling Equipment (MHE) required for transloading (loading/offloading) efficiently and effectively in austere environments and locations. ULS/SS will also develop or adopt ancillary equipment to transport large, heavy payloads from an afloat craft to the shore.</p> <p>FY 2024 Plans: In FY 2024, ULS/SS will develop MHE and unloading concepts and build prototypes and interfaces.</p> <p>FY 2025 Plans:</p>		0.050	3.950	5.300

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
In FY 2025, ULS/SS will integrate MHE into the craft, demonstrate ship-to-shore capability, and conduct developmental testing and fleet exercises. FY 2024 to FY 2025 Increase/Decrease Statement: Increased costs due to the construction of prototypes and interfaces.				
Title: Satellite Communications (SATCOM)-Assured Narrowband for Department of Defense (DoD) Devices (SAND2) Description: SAND2 is a late FY 2023 new-start project that is a scalable, low-latency communications to legacy ultra-high frequency (UHF) SATCOM user equipment (UE), Weapon Data Links (WDL), and next-generation low-size, weight, and power (SWaP) weapon system UE. SAND2 will enable Direct-to-DoD-Device low-latency connectivity and increased capacity for shared situational awareness and command-and-control across domains in rapidly changing threat environments. Additional project details are classified. FY 2024 Plans: In FY 2024, SAND2 will develop an Implementation Directive, Management Plan, and initial system design requirements. FY 2025 Plans: In FY 2025, SAND2 will initiate flight software and ground system hardware integration activities and develop an experimentation plan for space flight demonstration.		0.000	4.000	4.000
Title: Concepts & Capabilities (C&C) Portfolio Development Initiatives (PDI) Description: Continually-funded effort. This funding allocation is to provide future funding for in- and out-year new-start C&C projects. Through the C&C Portfolio Development Initiatives (PDI) effort, OUSD(R&E) sponsors efforts to address the Department's most pressing operational capability gaps and accelerate new capability development in collaboration with the Joint Services and Combatant Commands (CCMD). OUSD(R&E) executive leadership will endorse and make final recommendations for Congressional approval in accordance with H.R. 2617, Consolidated Appropriations Act, Section 8061. Selected projects leverage multicomponent agencies within the global research and engineering enterprise, to include government labs and integration agents, depots, academia, and commercial defense industrial base (DIB) providers. As provided by the ASD(MC), operational prototyping activities utilize best practices to satisfy joint and crosscutting needs and work collectively to streamline transition and scale-up into joint Service acquisition systems where appropriate. Current developmental portfolios are designed for, but are not limited to, addressing critical capabilities gaps in battle-space management; cyber; command, control, communications, computers, cyber, intelligence, surveillance, reconnaissance, and targeting (C5ISR) and Counter-C5ISR; resilient communications; unmanned and autonomous systems; deception and decoys; electronic warfare and sensors; weapons and platforms; space-based capabilities; and logistics and sustainment. This fiscal year's funding includes several projects submitted in a Congressional new-start report. Projects identified for funding this fiscal year will be included on future R2 exhibits		0.000	0.000	16.861

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
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Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603838D8Z / Defense Innovation Acceleration (DIA)	Project (Number/Name) 730 / Concepts and Capabilities
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>while projects that are more than the \$5M threshold will be included in congressional new start notification packages. In future fiscal years, this report will be submitted earlier in the fiscal year and include those projects.</p> <p>FY 2024 Plans: Develop and shape future projects into approved C&C developmental portfolios; sponsor and invest in advanced prototyping activities as new-starts that support the NDS and USD(R&E) priorities.</p> <p>FY 2025 Plans: Continue developing and shaping future projects into approved C&C developmental portfolios; sponsor and invest in advanced prototyping activities as new-starts that support the NDS and USD(R&E) priorities.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The increase reflects that FY 2025 projects have not yet been approved. Once Congressionally approved, they will be included as separate projects on future R-2 exhibits.</p>			
Accomplishments/Planned Programs Subtotals	181.902	182.289	124.353

	FY 2023	FY 2024
<p>Congressional Add: High-Altitude Optical Reconnaissance Unit and Sensor (HORUS)</p> <p>FY 2023 Accomplishments: HORUS is a prototype electro-optical/infrared system incorporating a modular open system architecture to provide an adaptable and evolvable capability. The HORUS prototype supports day or night operations providing multi-spectral, high-definition full motion video from extreme slant ranges. Specific activities and demonstrations will be finalized within the year of execution. This technology area is a Congressional interest item and additional resources were provided above the President's budget.</p>	20.000	-
<p>Congressional Add: Open-Source Intelligence (OSI)</p> <p>FY 2023 Accomplishments: This project continues development and transition of the Open-Source Supply Chain Analytics Resource (OSSCAR) project. OSSCAR develops a capability that enables planners and operators to rapidly analyze and leverage open-source supply chain data to adapt to a dynamic operational environment. Quickly accessing and assessing publicly available information provides insights for developing distribution and sustainment courses of action and allows for vetting critical suppliers to U.S. or adversary supply chains. Specific activities and demonstrations will be finalized within the year of execution. This technology area is a Congressional interest item and additional resources were provided above the President's budget.</p>	3.000	-
Congressional Adds Subtotals	23.000	-

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C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy Upon project closeout, a C&C project has three possibilities: 1) Transition as Capability Delivery (Operational Prototype) <ul style="list-style-type: none">• To a new or existing Program of Record• As a residual leave behind for immediate operational use• Or both 2) Transition as Capability Enabler (Developmental Prototype) <ul style="list-style-type: none">• Informs further acquisition programs and/or requirements development 3) No Transition <ul style="list-style-type: none">• Requirements change or no longer valid• Did not meet deliverables as planned The integrated management team on a C&C project includes an operational manager from a CCMD, a technical manager from Service research and engineering labs, and a transition manager from a program executive office. This ensures that transition is planned for throughout the lifecycle of the project.		

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense										Date: March 2024		
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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
<i>731: Innovation and Modernization</i>	0.000	80.000	74.821	41.445	-	41.445	44.338	67.748	67.797	70.640	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Innovation and Modernization (I&M) focuses on addressing the DoD’s current priority challenges in near real-time, through innovation discovery and leap-ahead prototyping. Activities include early exploration of low-cost potentially game-changing technologies and concepts, harnessing non-traditional performers and small business innovation to address DoD modernization and capability challenges. I&M acts as an innovation accelerator by funding discovery efforts and the development of prototypes to identify and mature solutions for joint capability gaps. I&M supports DoD modernization through multi-year projects with targeted technology and capability thrusts that are identified, selected, and executed within the year of execution. These efforts support technology maturation and lead to transition through partnerships with Services, Combatant Commands (CCMDs), and other defense agencies to enable effective, affordable, and critically needed early-stage prototype technologies. I&M achieves this through a tailored execution model that:

- Creates an innovation pipeline to support key experimentation and transition efforts, such as the Rapid Defense Experimentation Reserve (RDER), targeting Department priorities and capability gaps
- Is informed by Department-level strategies and priorities including the National Defense Strategy, Joint Warfighting Doctrine, CCMD priorities, and the OUSD(R&E) critical technology areas
- Leverages and coordinates innovation from all sources, including Service laboratories, Federally Funded Research and Development Centers (FFRDCs)/University Affiliated Research Centers (UARCs), the defense industry, small businesses, non-traditional performers, and academia
- Responds rapidly with the ability to identify and fund prototypes within the year of execution to accelerate the rate of innovation and address emerging opportunities and threats
- Leverages Service, defense agency, and industry investments through partnerships that share risk and increase alignment with OUSD(R&E) priorities
- Incorporates transition sponsor participation during project development, prototyping, and evaluation

With funds available throughout the year of execution, I&M enables the OUSD(R&E) to identify, accelerate, and rapidly transition innovation from all sources that otherwise would not be realized through traditional research and development pathways. This execution model causes I&M to lag traditional RDT&E obligation and execution benchmarks, however, since inception I&M has achieved an unbroken 100% obligation rate. Accordingly, I&M can be responsive and flexible to the DoD and joint warfighter needs, supporting rapid prototyping to meet immediate capability needs or game-changing technologies that maintain technological superiority and create enduring change.

I&M’s focus on innovation discovery with a flexible execution model allows for rapid innovation through new technology and capability thrusts supported by joint and interagency partnerships with clearly defined milestones and risk reduction. Prototyping efforts are identified throughout the year by leveraging engagements with industry, Service laboratories, FFRDCs, and other innovation centers. Individual projects generally span 12 to 24 months, typically at a cost of less than \$2.000 million.

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>Title: Eris</p> <p>Description: This project rapidly prototyped and tested a novel, low-cost concept to enhance Joint Force resilience in the presence of modern threats. In FY 2023, prototype integration and system validation were completed prior to a late FY 2023 field demonstration in an operationally relevant environment. The developed capability transitioned to the U.S. Air Force. Additional details are classified.</p>		3.550	-	-
<p>Title: Joint All Domain Operational Tool Suite (JADOTS)</p> <p>Description: This project developed a capability through the integration of several software tools to enable analysis and planning of kinetic and non-kinetic fires for multi-domain operations (MDO) effects through the production and visualization of convergence packages. In FY 2023, JADOTS achieved initial authority to test and participated in three exercises: Project Convergence 21, Balikaton, and Northern Edge 2. A prototype mobile command post was delivered. JADOTS expanded to additional units and operators in the U.S. Army and U.S. Marine Corps (USMC) to capture new and unique MDO requirements before final transition to an Army Futures Command program of record.</p>		1.300	-	-
<p>Title: HITS</p> <p>Description: This project prototyped and demonstrated a novel detection and tracking capability for military targets. In FY 2023, modeling and simulation (M&S) assessed target detection dependent on size, velocity, and orientation. Subsequent data collection activities in relevant environments further refined M&S predications. Work continues in FY 2024, using FY 2023 funds, to execute a real-time demonstration of the prototype capability in an operationally relevant environment prior to transitioning the developed capability to a DoD partner. Additional details are classified.</p>		2.067	-	-
<p>Title: Big Blue</p> <p>Description: This is a classified program. Additional information is available upon request.</p>		1.000	-	-
<p>Title: Void Walker</p> <p>Description: This is a classified program. Additional information is available upon request.</p>		4.900	-	-
<p>Title: Echelon</p> <p>Description: This project developed a common digital twin technical framework capable of supporting a wide variety of military radio frequency (RF) systems. Echelon supports virtual testing of digital twin prototypes in a highly accurate, physics-based simulated operational environment, enabling the DoD to evaluate the effectiveness of prototype systems or subsystems in realistic environments and against red threats early in the development phase. The developed high-fidelity, multi-physics framework</p>		4.800	2.300	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>enables Service research and acquisition programs to mature digital twin prototypes prior to purchasing extensive hardware, enabling programs to shorten the development lifecycle of current system upgrades and next generation systems. This effort includes the hardware and software implementation of the first instantiation of the Echelon technical framework. In FY 2023, the Echelon framework was further matured to support identified additional RF-based DoD missions, along with a method to validate the mature framework.</p> <p>FY 2024 Plans: In FY 2024, work continues to complete validation and execute a multi-function demonstration of multiple RF digital twins performing their respective RF mission, operating simultaneously, and interacting within the same high-fidelity multi-physics environment. At the end of FY 2024, Echelon transitions to the U.S. Air Force and U.S. Army.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to the U.S. Air Force and U.S. Army.</p>			
<p>Title: Dawson</p> <p>Description: This is a classified program. Additional information is available upon request.</p> <p>FY 2024 Plans: This is a classified program. Additional information is available upon request.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to classified partners.</p>	0.750	1.000	-
<p>Title: Beckett</p> <p>Description: This is a classified program. Additional information is available upon request.</p> <p>FY 2024 Plans: This is a classified program. Additional information is available upon request.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to classified partners.</p>	1.000	0.650	-
<p>Title: Autonomous Low-Profile Vessel (ALPV)</p> <p>Description: This project designs, develops, and tests an autonomous maritime semi-submersible logistics platform prototype capable of transporting up to a 10-ton payload across large distances of the ocean with minimal visibility and possibility of detection. The low-profile and low-cost platform provides an innovative logistics solution to support Joint Forces in an austere location. In FY 2023, ALPV prototypes were constructed and completed developmental testing and evaluations by the U.S.</p>	3.665	0.450	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>Navy. The USMC conducted limited operational experimentation in the U.S. Southern Command (USSOUTHCOM) Area of Responsibility (AOR) at the end of FY 2023.</p> <p>FY 2024 Plans: FY 2024 plans include final enhancements of the prototypes for autonomy and sea worthiness, with the final craft capable of demonstrating long range, unattended, logistics resupply as part of a Fleet Exercise or other specifically designed joint experiment with U.S. Indo-Pacific Command (USINDOPACOM). Following demonstrations, the systems will transition to the USMC, with applicability to U.S. Navy and U.S. Army needs.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to the U.S. Marine Corps.</p>				
<p>Title: Artemis</p> <p>Description: Artemis develops and demonstrates a sensor package optimized for high-altitude operations. These sensors are packaged to minimize size, weight, and power (SWaP) requirements within a single multi-function stratospheric capable package. In FY 2023, activities included continuing the design and fabrication of the Artemis prototype.</p> <p>FY 2024 Plans: In FY 2024, activities include testing and demonstration of the Artemis multi-function RF sensor package on a surrogate fixed-wing aircraft prior to a performance demonstration during stratospheric flight. Following demonstration, the multi-function RF sensor package transitions to the U.S. Army for qualification testing.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to the U.S. Army.</p>		2.600	1.350	-
<p>Title: Advanced Tactical Communications (ATC)</p> <p>Description: Leveraging novel technologies, the ATC project develops a low SwaP communications capability that operates outside of the traditional RF spectrum. The developed capability provides up to a 100-fold increase in communication bandwidth enabling new and novel warfighting capabilities on SwaP constrained platforms such as tactical ground vehicles and small-unmanned aerial systems. In FY 2023, sub-component maturation and system development continued. Development of an early prototype led to a field demonstration in late FY 2023 to validate performance.</p> <p>FY 2024 Plans:</p>		1.625	1.575	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 plans include final refinement of the prototype subsystems, followed by manufacturing, integration, and testing of the final prototype. The ATC project culminates in a final test and evaluation of the integrated prototype in an operationally relevant environment before transitioning to the U.S. Army.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to the U.S. Army.</p>				
<p>Title: Extended Range Threat Detection</p> <p>Description: This project provides the ability to engage advanced threats at greater ranges through software enhancements. These software upgrades significantly increase tracking range providing an improved capability for advanced defense. In FY 2023, the project began work on the initial development of upgrades to enable radar to accept and process a track cue from a long-range sensor. Additional details are classified.</p> <p>FY 2024 Plans: In FY 2024, the project will continue to refine capabilities, begin drafting Concepts of Operations (CONOPS), and complete development in preparation for final testing at two field demonstrations before transitioning to the U.S. Army.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Efforts conclude at the end of FY 2024 with the developed capability transitioning to the U.S. Army.</p>		2.000	2.000	-
<p>Title: Counter Communications, Detection, Reconnaissance, and Engagement (CCoMMoDoRE) Focus Area</p> <p>Description: CCoMMoDoRE focuses on emerging capabilities to exploit weaknesses and degrade capabilities in adversary communications and sensor web networks, leveraging technology innovation from small businesses and non-traditional performers. Projects provide the architecture to ensure allied access, deny enemy use, and enable future capabilities for spectrum dominance. In FY 2023, I&M selected, executed, and transitioned multiple CCoMMoDoRE projects, including:</p> <ul style="list-style-type: none"> • Ragnar: This project matured a multi-function radio frequency (RF) system concept leveraging commercial-off-the-shelf (COTS) components, along with advancements in RF technology to drive innovation and deliver a low-cost, modular capability to the U.S. Army. Details about the functionality and application of Ragnar are classified. In FY 2023, market research was completed, and the concept matured prior to transition to the U.S. Army for further development. • Identity Warrior: This project leverages advances in optics, cloud computing, and artificial intelligence/machine learning (AI/ML) to passively capture and analyze human signatures at a distance. Identity Warrior screens individuals against known adversaries in real-time and provides automated reporting of significant events on existing Android computing platforms used throughout the Joint Force. In FY 2023, the project completed integration of optics, cloud computing, and AI/ML to passively capture human 		3.192	0.230	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>signatures at extended distances and generated automated reporting through ATAK mission planning and situational awareness core capabilities.</p> <p>FY 2024 Plans: In FY 2024, I&M intends to complete execution and transition the following CcoMMoDoRE project:</p> <ul style="list-style-type: none"> • Identity Warrior: The project completes operational assessments with end users prior to transition to the U.S. Army, USMC, and U.S. Special Operations Command (USSOCOM) in FY 2024. <p>FY 2024 to FY 2025 Increase/Decrease Statement: Respective efforts conclude at the end of FY 2024.</p>			
<p>Title: Disruptive Technologies through Novel Additive Manufacturing (NAM) Focus Area</p> <p>Description: NAM enables on-demand production of critical parts and supplies for deployed units that augment platforms, weapons, sensors, and other solutions to modernization challenges. Targeted investments accelerate capabilities to the warfighter and realize new disruptive technologies through low cost, rapid innovation, leveraging technology innovation from small businesses and non-traditional performers. In FY 2023, I&M selected, executed, and transitioned multiple NAM projects, including:</p> <ul style="list-style-type: none"> • 3D Printed Radiation Shielding of Electronic Components: This project investigated and developed a novel approach to mitigate radiation damage to microelectronic systems in extreme environments using unique additive manufacturing techniques. The project enables the DoD to integrate COTS electronics into emerging space systems at a significant SwaP advantage. In FY 2023, the project successfully manufactured radiation shielding materials that were tested for performance against proton, gamma ray, and heavy ion induced damage. This dataset was used to outline design rules for space systems travelling in low Earth orbit trajectories. Development of the prototype capability continues in FY 2024, using FY 2023 funds, to model the performance of the shielding materials for medium Earth orbit and geostationary orbit trajectories before transitioning to DoD and interagency partners. • Arctic Grid Energy Storage (AGES): This project developed and demonstrated a battery storage and tactical generator microgrid capability that meets critical operational requirements in extreme cold weather environments; emphasizing scalable, flexible, and high-power quality for continuous and high-energy demands. In FY 2023, preliminary, interim, and detailed design reviews were completed; final designs were provided; and operational testing was completed. Work continues in FY 2024, using FY 2023 funds, to deliver and demonstrate a hybrid operational energy microgrid at the Alaska Cold Region Research and Engineering Laboratory (CRREL) site during a North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM) field exercise, and for testing at the New Hampshire CRREL site. Final transition occurs in FY 2024 to NORAD, USNORTHCOM, Army Futures Command, and Army North (ARNORTH). 	9.851	1.200	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> • Intelligent Sensing for Remote and Field Care: This project prototyped an innovative ultrasound imaging system to enhance small unit medical self-sufficiency at the tactical edge in support of future distributed warfighting concepts. These concepts involve units separated by large geographic distances and operating in austere environments with area denial challenges, which necessitate the need for intelligent medical devices that support trauma care in the field. In FY 2023, the project focused on designing and maturing the prototype. The hardware components were received, and the project completed initial testing and design fabrication prior to transitioning to the Trauma Care in a Rucksack (TRACIR) project under USSOCOM, with the Joint Services identified as initial users. • Tactical Microgrid Standard Environmental Control Unit (TMS ECU): This project developed a TMS compliant controller for ECUs enabling networked capability to optimally operate heating and cooling equipment, reducing power demand and fuel consumption. In FY 2023, remote control of the ECU was demonstrated utilizing the TMS and the control algorithm design for the microgrid controller and the microgrid dashboard design were completed. Development work continues in FY 2024, using FY 2023 funds, concluding with a final demonstration before transitioning to the U.S. Army Program Manager Expeditionary Energy and Sustainment Systems (PM E2S2) to inform future procurement of ECUs and other smart TMS loads. • Small 3D Printed Unmanned Aerial Vehicles (UAVs): This project develops a low-cost UAV utilizing a low-cost sensor array, COTS parts, and 3D printing to reduce cost. In FY 2023, the project focused on reducing risk for the guidance capability and demonstrating range and sensing. In FY 2024, using FY 2023 funds, the project will focus on end-to-end development and high-fidelity sensing before transitioning to DoD partners. • AM-Enhanced Lattice Castings: This project uses distributed desktop-scale additive manufacturing to create casting patterns, deploy casting methodologies, and generate large-scale intricate lattice-enhanced design concepts. In FY 2023, sub-scale, multi-segment, lattice-enhanced cast engineering articles were successfully designed, segmented, additively manufactured, cast, and tested at relevant experimental conditions. Work continued in FY 2024 before transitioning to the Defense Threat Reduction Agency (DTRA). <p>FY 2024 Plans: In FY 2024, I&M intends to complete execution and transition the following NAM projects:</p> <ul style="list-style-type: none"> • AM-Enhanced Lattice Castings: In FY 2024, full-scale castings will be produced and tested to demonstrate scale-up, cost metrics, and performance targets before transitioning to DTRA for manufacturing large-scale, advanced concepts in mission critical applications. <p>FY 2024 to FY 2025 Increase/Decrease Statement: Respective efforts conclude at the end of FY 2024.</p>				
Title: Resilient Position, Navigation, and Timing (PNT) to Support DoD Modernization Needs Focus Area		11.325	4.250	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: Resilient PNT develops new capabilities for alternative PNT to ensure and enhance situational awareness in contested environments. Projects explore technologies and capability concepts through platforms, command networks, and soldier systems, to extend the range of control and protect front-line warfighters and allies. Resilient PNT leverages technology innovation from small businesses and non-traditional performers. In FY 2023, I&M selected, executed, and transitioned multiple Resilient PNT projects, including:</p> <ul style="list-style-type: none"> • JUNU: This project developed an innovative electronic-warfare capability to existing ground, air, and maritime platforms mitigating current and future battlespace PNT challenges. In FY 2023, additional U.S. Army platforms were identified as transition partners and multiple operational demonstrations were achieved solidifying future opportunities to fulfill multiple mission needs and operational deficiencies. JUNU transitioned to U.S. Army, U.S. Air Force, U.S. Space Force, and U.S. Navy platforms. • Polar Skywave Radar (PSR): This project matured RF hardware and advanced radar processing algorithms to validate that over-the-horizon skywave radar is viable for a future surveillance system in the polar region. PSR focused on ten major tasks to extend skywave radar to the polar region, including deploying high frequency (HF) radar hardware for a scaled model and refining signal processing techniques. In FY 2023, PSR completed additional data collections to assess the seasonal ionospheric conditions and their impact on performance. PSR transitions into the NORAD/NORTHCOM Northern Approaches Surveillance system which includes an over-the-horizon radar network funded by the United States and Canada. • Expeditionary Accurate Tactical (EXACT): This project develops a low-SWaP software defined capability to provide accurate, robust, and reliable PNT information. In FY 2023, EXACT development continued with integration of the software and hardware into a functioning prototype with developmental testing in a controlled laboratory environment. The prototype transitioned to the U.S. Army's Joint Program Executive Office Armaments & Ammunition (JPEO A&A) for continued maturation and integration throughout FY 2024 finalizing in a demonstration in an operational environment before subsequent transition to existing planned warfighter capabilities. Additional details are classified. • Advanced Position, Navigation and Timing (APNT): This project accelerated development and matured components of a modular, agile, and reprogrammable APNT capability. The system provides a robust and secure PNT solution in GPS degraded or denied environments. In FY 2023, the system was integrated into a laboratory test architecture and assessed to verify operation in relevant environments prior to transition into a U.S. Air Force Life Cycle Management Center (AFLCMC) Program of Record. • Low-SWaP Anti-Jam Antenna (AJA) for Navigation Systems: This project miniaturizes existing anti-jam (AJ) technology into a dismounted form factor and integrates the unit with current and future dismounted GPS systems. The effort leverages an existing government-owned AJ design applicable for U.S. Army ground assured PNT systems and advances this design while reducing overall cost and SWaP. In FY 2023, the project integrated the antenna algorithm onto an ultra-low power field programmable gate array (FPGA) and adopted an AJ algorithm for simultaneous L1/L2 GPS frequencies. Development of the prototype capability 			

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

	FY 2023	FY 2024	FY 2025
<p>continues in FY 2024 with final transition to the U.S. Army's C5ISR Center Soldier Integrated Position, Navigation, and Timing (PNT) Science and Technology (S&T) project in support of the Dismounted Assured PNT System (DAPS) program of record.</p> <ul style="list-style-type: none"> • Modular Autonomous sUAS Swarm Delivery System (MASS-DS): This project provides a versatile set of domestically produced, AI-enabled, low-cost, attritable, small, unmanned aircraft systems (UAS) capable of being deployed in large numbers from a variety of crewed and un-crewed platforms and survivable in GPS/communications denied environments in order to perform intelligence, surveillance, and reconnaissance (ISR) tasks. In FY 2023, prototypes of two integrated MASS-DS airframes were developed and underwent initial testing to validate the core performance of the low-cost hardware and software in anticipation of technology evaluation at a FY 2024 Office of the Under Secretary of Defense (OUSD) Technology Readiness Exercise (TREX). Development of the prototype capability continues in FY 2024 with final transition to the U.S. Air Force Special Operations Command (AFSOC) sUAS System Program Office (SPO). • PNT Chain: This project seeks to deliver assured PNT to networked subscribers. The project creates and demonstrates a prototype system-of-systems, consisting of unique hardware executing novel algorithms that delivers assured PNT. In FY 2023, the project successfully created a system-of-systems prototype deployed with novel PNT algorithms. Development of the prototype capability continues in FY 2024 with final transition to multiple Services. • RASCAL: This project developed a novel, exportable system to enable small UAS to navigate to points of interest in denied and degraded environments using alternative means of navigation. Work continues in FY 2024 before transitioning to the US. Army. Additional details are classified. <p>FY 2024 Plans: In FY 2024, I&M intends to complete execution and transition the following Resilient PNT projects:</p> <ul style="list-style-type: none"> • Low-SWaP Anti-Jam Antenna (AJA) for Navigation Systems: Development of the prototype capability continues in FY 2024 through miniaturization of the antenna to a hand-held form factor; integration of the antenna with the GPS receiver; and preparation for the PNT Assessment Exercise (PNTAX) 24 field event before transitioning to the U.S. Army. • Modular Autonomous sUAS Swarm Delivery System (MASS-DS): Development of the prototype capability continues in FY 2024 where the MASS-DS airframes will be evaluated at an OUSD TREX event and an Air Force Special Operations Command (AFSOC) test event series prior to transition to AFSOC sUAS SPO. • PNT Chain: Development of the prototype capability continues in FY 2024 with testing and assessment of the prototype on progressively larger scales. The project will focus on delivery, deployment, and testing of novel algorithms for transition to multiple Services. • RASCAL: Prototype development continues in FY 2024 before transitioning to the US. Army. Additional details are classified. <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603838D8Z / <i>Defense Innovation Acceleration (DIA)</i>	Project (Number/Name) 731 / <i>Innovation and Modernization</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Respective efforts conclude at the end of FY 2024.			
<p>Title: Reversible Effects for Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) Focus Area</p> <p>Description: Reversible Effects for C5ISR focuses on non-kinetic effects for denying and/or degrading the C5ISR capabilities of an adversary, leveraging technology innovation from small businesses and non-traditional performers. Projects mature technologies and future capability concepts by developing platforms, sensors, and communication architectures that explore new or improved methods for denying and/or degrading adversary C5ISR capabilities. In FY 2023, I&M selected, executed, and transitioned multiple Reversible Effects for C5ISR projects, including:</p> <ul style="list-style-type: none"> • Automated Network Inference and Fusion: This project modernized how data is acquired and processed from diverse sources to build comprehensive and authoritative network depictions for effects-based analyses and precision options. In FY 2023, the project delivered an automated software capability to the Joint Warfare Analysis Center and streamlined processes for carrying out analyses in order to reduce analyst burden, speed-up network build throughput, and improve solutions provided. Work continues in FY 2024, using FY 2023 funds, to enhance the software capability by refining analysis tools, improving robustness and user experience, and adding additional features as directed, before transitioning to the U.S. Air Force for operational use. • Kestrel: This project develops and demonstrates critical technology prototypes for enhanced undersea situational awareness for the U.S. Navy. In FY 2023, the principal components of the technology were developed and demonstrated. The components were integrated into intermediate form factors, and some components were used operationally. Work continues in FY 2024, using FY 2023 funds, to integrate individual technology components into their final form factor with a demonstration in an operationally relevant environment before final transition to a USSOCOM Program of Record. Additional details are classified. • USSOCOM Ignite Innovation: This annual program is a low-cost innovation accelerator that combines the ingenuity and out-of-the-box thinking of military students, and the deep technical expertise of professional researchers, with real-world military problems curated by USSOCOM. Military students from multiple universities work together to develop prototype solutions to relevant challenges like drone autonomy, sensor and data fusion, tactical route planning, resource allocation, and casualty care at the tactical edge. Development of prototypes occurred in FY 2023 with final transition into operational capabilities. • Athena: This project matured a radio frequency system to address modern threats. In FY 2023, prototype integration and system validation were completed prior to demonstration in an operationally relevant environment. The developed capability transitioned to the U.S. Army. Additional details are classified. • Distributed sensing from Air, Ground, and Naval platforms (DRAGON): This project develops a cost-effective solution for incoming threat detection by incorporating advancements across multiple technology focus areas including improved infrared sensors, machine learning, and edge processing. Development of the prototype continued in FY 2023. Prototype development continues in FY 2024 with final transition to the U.S. Navy and U.S. Marine Corps. Additional details are classified. 	9.495	2.800	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603838D8Z / <i>Defense Innovation Acceleration (DIA)</i>	Project (Number/Name) 731 / <i>Innovation and Modernization</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
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<p>• CHROMATIC BUGLE: This project develops a modular payload for unmanned undersea systems. Development of this capability will complete in FY 2025 with transition to the U.S. Navy to inform the design of future DoD systems. Additional details are classified.</p> <p>FY 2024 Plans: In FY 2024, I&M intends to complete execution and transition the following Reversible Effects for C5ISR projects:</p> <ul style="list-style-type: none"> • Distributed sensing from Air, Ground, and Naval platforms (DRAGON): Development and evaluation of the technology in a relevant environment continues in FY 2024 prior to transitioning to the U.S. Navy and U.S. Marine Corps. Additional details are classified. • Low-Cost Precision Delivery: This project develops a low-cost precision delivery capability with a modular, multi-purpose payload carrier for a variety of operational use cases. In FY 2023, using FY 2022 funds, initial prototype development occurred, including prototype aerial delivery, custom hardware flight demonstration, and user interface development. In FY 2024, initial prototype testing and demonstration will take place with end-user observation before transitioning to USSOCOM. • CHROMATIC BUGLE: In FY 2024, this project continues to develop a modular payload for unmanned undersea systems, before transitioning in FY 2025 to the U.S. Navy. Additional details are classified. <p>FY 2024 to FY 2025 Increase/Decrease Statement: Respective efforts conclude at the end of FY 2024.</p>			
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<p>Title: Tactical Edge Kill Chains (TEK-C) Focus Area</p> <p>Description: TEK-C augments weapons/fires by improving the speed, precision, and reliability of fire support and kill chain capabilities. Projects leverage opportunities to rapidly mature and demonstrate advanced weapon systems through targeted prototyping of key enabling technologies, including technologies and capability concepts to enhance the lethality of the joint force, reduce the time to make critical decisions, autonomously distribute tasking and orders, and protect warfighters through increased use of intelligent networks, autonomous sensing platforms, and human-machine collaborative systems. TEK-C leverages technology innovation from small businesses and non-traditional performers. In FY 2023, I&M selected, executed, and transitioned multiple TEK-C projects, including:</p> <ul style="list-style-type: none"> • Automated Joint Terminal Attack Control Message Exchange (AJME): This project designed and developed a prototype software that automates the exchange of specific messages across joint systems using government off-the-shelf (GOTS) standards and technologies, improving the clarity and speed of communications necessary for coordinated fires support. Development of the technology continued in FY 2023 with transition to the U.S. Air Force and U.S. Army for future refinement in FY 2024. 	16.880	2.020	-
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<ul style="list-style-type: none"> • Perched Mantlet: This project developed an unattended ground sensor prototype to detect low and medium altitude threats. Prototype development continued in FY 2023 with final transition to DoD partners. Additional details are classified. • Intelligence, Surveillance, Reconnaissance, and Targeting (ISRT): This project developed a laser target designator for integration onto a small form factor gimbal to support ISR and targeting missions. This effort reduced the size, weight, and power (SWaP) of the gimbal to enable precision fires while conducting ISR missions with a small unmanned aerial system (s-UAS). Prototype development continued in FY 2023, with the initial targeting system undergoing operational testing and evaluation to ensure the advances in optical systems are compatible with s-UAS platforms. The project identified additional functionalities to provide enhancements to the gimbal that would improve the operators targeting capabilities. The project concluded with the developed capability transitioning to USSOCOM and the Joint Services for integration. • Aided Target Recognition (AiTR): This project accelerates the development and demonstration of a modular processing component that enables automatic threat detection capabilities on SWaP constrained platforms. AiTR provides embedded capabilities for existing and next-generation sensors, resulting in approximately 50 percent improvement in target identification range. In FY 2023, prototype and targeting algorithm development was completed with an initial evaluation against military relevant targets. AiTR transitioned to the U.S. Army for further development. • El Camino: This project developed machine learning approaches to enhance imagery to aid in aircraft navigation. Prototype development and demonstration continued in FY 2023. Additional details are classified. • Flying Self Emplacement Sea Glider: This project merged two distinct unmanned systems: Unmanned Undersea Vehicle (UUVs) and Unmanned Aerial Vehicles (UAVs) resulting in a hybrid unmanned system capable of autonomous flight followed by transition to underwater operation. Development of the capability continued in FY 2023 with final transition to the U.S. Navy. • Measured Threat Risk Assessment (MeTRA): This project develops a model-based systems engineering environment and knowledge management collaboration platform to reduce security vulnerabilities, increase resiliency, and to support agile analysis for making data-driven security decisions. In FY 2023, MeTRA initiated modeling and process assessments with final transition to a DoD partner in FY 2024. • Dark Skies: This project reduced risk for tactical aircraft in contested environments. Prototype development continued in FY 2023 with final transition to a DoD partner. Additional details are classified. • Next Generation Hypersonic Testing (NiGHT): This project tested and assessed the utility of a novel technology capable of providing significant performance benefits for future DoD applications. In FY 2023, the project successfully conducted a test program at a government facility and completed initial conceptual design and mission analysis. In FY 2024, using FY 2023 funds, the project will finalize conceptual design and mission analysis before transitioning to the U.S. Air Force and U.S. Navy. Additional details are classified. • Digital Power-Optimized Pixel (D-POP): This project demonstrated a digital pixel circuit design that can reduce camera power consumption by 90 percent when compared to current-fielded digital-pixel camera systems. This project designed, fabricated, and characterized test devices to prove the feasibility of building larger camera systems with this technology. In FY 2023, the project completed the design and fabrication of test chips that integrate a new low-power pixel design into an imaging array readout 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>circuit. Initial laboratory testing and characterization of the devices began. In FY 2024, using FY 2023 funds, the project will complete performance characterization of the new pixel design and transition to DoD partners.</p> <ul style="list-style-type: none"> • Project HighJumper: This project improved current vision-based guidance for aerial systems. Prototype development continued in FY 2023 with final transition to DoD partners. Additional details are classified. • LAMPOST: This project designed and fabricated a novel millimeter-scale hydrophone allowing a larger number of sensors to be deployed in a given system, increasing the area coverage and sensor performance. FY 2023, LAMPOST developed an analytical and computational model that estimates the bandwidth of the hydrophone. Work continues in FY 2024 before transitioning to the U.S. Navy. • Project 3750: This project developed technologies for information sharing and distributed collaboration. Prototype development continued in FY 2023. Work continues in FY 2024 before transitioning to DoD partners. Additional details are classified. <p>FY 2024 Plans: In FY 2024, I&M intends to complete execution and transition the following TEK-C projects:</p> <ul style="list-style-type: none"> • LAMPOST: Prototype development continues in FY 2024, with plans to fabricate and test a prototype hydrophone with analog output before transitioning to the U.S. Navy after an ocean-based demonstration. • Project 3750: Prototype development continues in FY 2024 before transitioning to DoD partners. Additional details are classified. <p>FY 2024 to FY 2025 Increase/Decrease Statement: Respective efforts conclude at the end of FY 2024.</p>			
<p>Title: Resilient Position, Navigation, and Timing (PNT) Focus Area</p> <p>Description: Resilient PNT develops new capabilities for alternative PNT to ensure and enhance situational awareness in contested environments. This project explores technologies and capability concepts through platforms, command networks, and soldier systems, to extend the range of control and protect front-line warfighters and allies. Individual efforts are identified and refined throughout the year of execution through outreach and discovery engagements, including pitch days with industry and non-traditional performers. Prospective efforts are closely coordinated with the Services to deconflict, improve jointness, and increase transition to Service acquisition programs. These investments support targeted efforts, with co-funding from development and transition partners, to prototype solutions for augmenting Global Navigation Satellite Systems (GNSS) and military Global Positioning System (GPS)-denied capabilities with additional capability that can support low-cost platforms or provide backup systems.</p> <p>FY 2024 Plans:</p>	-	10.960	7.976

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>FY 2024 plans include development of physical hardware, such as novel inertial measurement units (IMUs) or resonators; software, such as PNT fusion algorithms; concepts, such as mesh networking PNT; and related systems or networks (e.g., communications, advanced processors and algorithms, and sensors that support PNT). These solutions leverage advancements in commercial autonomy, indoor and underground navigation, and opportunities in an increasingly connected world (e.g., PNT through Internet-of-Things (IOT) mapping), particularly through innovation from small businesses and non-traditional performers. Each prototype represents a component of the Resilient PNT project with multiple on-ramps and rapid innovation cycles to maximize the potential impacts for DoD modernization through innovation. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 6 to 9 new prototypes to support Resilient PNT in FY 2024.</p> <p>FY 2025 Plans: FY 2025 plans include continued development of physical hardware, software, concepts, and related systems or networks. These solutions will leverage advancements in commercial autonomy, indoor and underground navigation, and opportunities in an increasingly connected world, particularly through innovation from small businesses and non-traditional performers. Each prototype represents a component of the Resilient PNT project with multiple on-ramps and rapid innovation cycles to maximize the potential impacts for DoD modernization through innovation. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 8 to 11 new prototypes to support Resilient PNT in FY 2025.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>			
<p>Title: Autonomy at the Tactical Edge Focus Area</p> <p>Description: Autonomy at the Tactical Edge explores joint mission capabilities to enhance the lethality of the joint force, reduce the time to make critical decisions, autonomously distribute tasking and orders, and protect warfighters through increased use of low-cost, attritable, autonomous systems and enabling intelligent networks. Individual efforts are identified and refined throughout the year of execution through outreach and discovery engagements, including pitch days with industry and non-traditional performers. Prospective efforts are closely coordinated with the Services to deconflict, improve jointness, and increase transition to Service acquisition programs. Selected prototypes target key capabilities that enable leap-ahead improvements in intelligent autonomous systems with cost effective investments from small business and non-traditional performers, aligning with DoD priorities. Solutions may build upon commercial autonomy products, providing a rapid, alternative pathway to military capabilities. These projects leverage advances in high performance computing, autonomy, and machine learning to transfer cognitive burden closer to the point of collection and action.</p>	-	11.960	10.630

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p><i>FY 2024 Plans:</i> FY 2024 plans include maturation of enhanced capabilities for multiple autonomous systems to cooperatively interact; tools to fuse and infer information; autonomous task discrimination and prioritization; collaborative systems for efficient distribution of contested logistics; data pre-processing for fully integrated command and control; and human-machine collaborative decision making. These efforts will examine common software platforms and modular open architecture systems to reduce development cost, increase collaboration among manned and unmanned platforms, and inform requirements. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 7 to 10 new prototypes to support Autonomy at the Tactical Edge in FY 2024.</p> <p><i>FY 2025 Plans:</i> FY 2025 plans include continued maturation of enhanced capabilities for multiple autonomous systems to cooperatively interact; development of agile computer vision systems; tools to fuse and infer information from a wide variety of sensors and datasets; autonomous task discrimination and prioritization; autonomous operation in complex terrain; collaborative systems for efficient distribution of contested logistics; data pre-processing to reduce bandwidth requirements for fully integrated command and control; and human-machine collaborative decision making providing faster-than-human response to threats. These efforts will examine common software platforms and modular open architecture systems to reduce development cost, increase collaboration among manned and unmanned platforms, and inform requirements. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 9 to 13 new prototypes to support Autonomy at the Tactical Edge in FY</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>			
<p><i>Title:</i> Innovative Concepts for Counter C5ISR Focus Area</p> <p><i>Description:</i> Controlling the modern battlespace requires controlling the flow of information. Although traditionally a defense only technology area, advances in commercial sensors and apertures, autonomy, low-cost space platforms, and artificial intelligence or machine learning allow for innovative applications of commercial technology to address Joint C-C5ISR gaps. Individual efforts are identified and refined throughout the year of execution through outreach and discovery engagements, including pitch days with industry and non-traditional performers. Prospective efforts are closely coordinated with the Services to deconflict, improve jointness, and increase transition to Service acquisition programs. Innovative Concepts for Counter C5ISR explores prototypes that counter the adversary's ability to collect information through sensors and networks.</p> <p><i>FY 2024 Plans:</i></p>	-	12.076	9.995

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 plans include exploration of multi-function, autonomous targeting and decision support tools, net-centric electromagnetic spectrum apertures, advanced materials, novel algorithms and waveforms, capabilities that monitor and impact information networks, and other systems to conceal, confuse, disrupt, degrade or destroy C5ISR capabilities. Specifically, efforts target advancements led by commercial and non-traditional performers that may have a disruptive effect on military concepts. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 7 to 10 new prototypes to support Innovative Concepts for Counter C5ISR in FY 2024.</p> <p>FY 2025 Plans: FY 2025 Plans: FY 2025 plans include continued exploration and maturation of multi-function, autonomous targeting and decision support tools, net-centric electromagnetic spectrum apertures, advanced materials, novel algorithms and waveforms, capabilities that monitor and impact information networks, and other systems to conceal, confuse, disrupt, degrade or destroy C5ISR capabilities. Specifically, efforts target advancements led by commercial and non-traditional performers that may have a disruptive effect on military concepts. I&M final investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying approximately 9 to 13 new prototypes to support Innovative Concepts for Counter C5ISR in FY 2025.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>				
<p>Title: Prototyping Through Small Business and Non-Traditional Pathways</p> <p>Description: Prototyping Through Small Business and Non-Traditional Pathways leverages innovative technologies and emerging products developed by Service laboratories, FFRDCs/UARCs, the defense industry, small businesses, non-traditional performers, and academia. Individual efforts are identified and refined throughout the year of execution through outreach and discovery engagements, including pitch days with industry and non-traditional performers. Prospective efforts are closely coordinated with the Services to deconflict, improve jointness, and increase transition to Service acquisition programs. Promising solutions are selected for prototyping, and if successful, transition through partnerships with the Services, CCMDs, and other defense agencies. This effort supports the Department's objectives of leveraging commercial innovation to maintain technology superiority; increasing rate of technology maturation; exploring alternative and faster pathways for acquisition; and fielding affordable and effective joint mission capabilities.</p> <p>FY 2024 Plans: FY 2024 plans are informed by three to four planned Innovation Outreach solution meetings, conducted in partnership with Department and defense agency sponsor, and six to ten industry/innovation discovery events. Focus is planned on engagement</p>		-	20.000	12.844

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>with small business and non-traditional performers that are not already integrated with the Defense ecosystem. Innovation and Modernization investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying multiple new prototypes in FY 2024.</p> <p><i>FY 2025 Plans:</i> FY 2025 plans are informed by three to four planned Innovation Outreach solution meetings, conducted in partnership with Department and defense agency sponsor, and six to ten industry/innovation discovery events. Focus is planned on engagement with small business and non-traditional performers that are not already integrated with the Defense ecosystem. Innovation and Modernization investment decisions are made during the execution year in response to DoD, CCMD, Service, and other government priorities. I&M anticipates identifying multiple new prototypes in FY 2025.</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> In FY 2025, funding for this focus area decreases to support acceleration of other high priority prototypes addressing the DoD's current priority challenges.</p>			
Accomplishments/Planned Programs Subtotals	80.000	74.821	41.445

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

N/A

Remarks

D. Acquisition Strategy

Innovation and Modernization (I&M) will support FY 2025 performance metrics to transition projects to the joint warfighter and enable DoD modernization capabilities. I&M leverages the DoD's most efficient and effective acquisition approaches for rapid prototyping. This includes using Other Transaction Authorities, Broad Area Announcements, and new or existing contract vehicles.