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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 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</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	502.023	105.990	110.291	152.126	-	152.126	120.879	116.498	119.033	121.414	-	-
638: <i>Rapid Prototyping Program</i>	502.023	105.990	110.291	152.126	-	152.126	120.879	116.498	119.033	121.414	-	-

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

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

The Rapid Prototyping Program (RPP) supports the rapid development of prototypes required in 12-to-24 months (technical maturation TRL 7-9) to address Joint urgent needs identified through ideation with the Joint Staff, Combatant Commands, or Secretary of Defense guidance. Prototype requirements are developed using threat-informed physics-based mission analyses and are evaluated under the Office of the Assistant Secretary of Defense for Mission Capabilities' (ASD(MC)) campaign of experimentation, resulting in a military utility assessment. RPP may support the maturation of Joint prototypes across the Department (to include those developed by the Strategic Capabilities Office (SCO), Defense Innovation Unit (DIU), Defense Advanced Research Projects Agency (DARPA), and the Services (TRL 5-6)) that have successfully demonstrated a required capability but have not been independently assessed in an inneroperable, system of system architectures.

Overarching program goals include modernization of cross-cutting Joint technology areas, providing fieldable end-to-end mission capabilities for joint application, informing disparate programs of record, and delivering capabilities more quickly than traditional acquisition. RPP develops prototypes that reduce technical and integration risk across the services and accelerate capabilities to programs of record and future experimentation, including Rapid Defense Experimentation Reserve (RDER) Joint experiments. RPP project selection aligns to priority Joint mission threads and technology areas including artificial intelligence / machine learning; autonomous systems; hypersonics; electronic warfare; sensors for intelligence, surveillance, and reconnaissance (ISR); and resilient communications. RPP rapidly develops and fields cross-cutting, Joint prototype capabilities demonstrated in an operational environment to inform DoD and Service leadership.

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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	109.189	110.291	112.483	-	112.483
Current President's Budget	105.990	110.291	152.126	-	152.126
Total Adjustments	-3.199	0.000	39.643	-	39.643
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.188	-			
• Cancelled Account	-0.011	-	-	-	-
• Program Adjustments	-	-	39.643	-	39.643

Change Summary Explanation

FY 2025 net increase of \$39.643 million consists of
 \$5.000 million classified increase
 \$65.400 million increase for JADC2 development
 \$0.368 million increases for Economic Assumptions.
 -\$1.125 million to meet DoD overall funding reductions, which were spread to mitigate impact.
 -\$30.000 million are funds realigned to Service RDT&E and Procurement PEs to fund selected efforts needed to meet operational needs

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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 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</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
<i>638: Rapid Prototyping Program</i>	502.023	105.990	110.291	152.126	-	152.126	120.879	116.498	119.033	121.414	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Rapid Prototyping Program (RPP) develops prototypes to deliver capabilities, inform requirements, and bridge the gap between RDT&E activities and fieldable solutions. RPP facilitates and accelerates joint, cross-cutting prototyping efforts within the Services and Defense Agencies. This program has the agility to select, fund, and implement projects in the year of execution as new opportunities or threats emerge. In consultation with the Service Science and Technology (S&T) executives, selected projects generally receive a single year of funding to accelerate capability transition to Services' and Agencies' programs of record. Projects deemed critical by the Under Secretary of Defense for Research and Engineering (USD(R&E)) receive higher amounts of funding across multiple years. Planned funding supports the Joint Warfighting Concept (JWC), the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) critical technology areas, and Service and Agency needs to enable rapid response to emergent and time-sensitive threats.

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

	FY 2023	FY 2024	FY 2025
<p>Title: Southern Cross Integrated Flight Research Experiment (SCIFIRE)</p> <p>Description: SCIFIRE is a joint U.S. - Australia (AUS) partnership to develop and demonstrate an air-launched air-breathing hypersonic weapon prototype leveraging previous S&T investments in hypersonics. SCIFIRE will further mature hypersonic cruise missile technologies to engage time-critical, heavily defended, and high-value targets in a contested environment. The SCIFIRE form factor provides enhanced capability by allowing for integration on fighter aircraft.</p> <p>In FY 2023, project completed major design trades. The effort completed prototype system performance analysis and system design. Detailed design and analysis progressing toward Critical Design Review (CDR). Sub-scale wind tunnel testing to assess staging and stores loads complete.</p> <p>FY 2024 Plans: Transition project to U.S. Air Force Hypersonic Attack Cruise Missile (HACM) Program of Record for continued development and testing.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: SCIFIRE ends in December 2023 and transitions to the U.S. Air Force for continued development.</p>	35.200	2.000	-
<p>Title: Joint Affordable Kill-Chain Closure (JAKCC)</p> <p>Description: JAKCC supports the National Defense Strategy's priorities to modernize key capabilities and evolve innovative operational concepts. This effort integrates the fully networked command, control, and communications (FNC3); autonomy;</p>	3.655	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>electronic warfare (EW); and intelligence, surveillance, and reconnaissance (ISR) prototypes developed on an autonomous platform. A series of incremental demonstration and experimentation activities are executed in coordination with the Services and Combatant Commands to validate the platform integrated prototype capability to accelerate development and adoption of cost effective and interoperable solutions for defense challenges. The JAKCC project leverages a government reference architecture developed in coordination with the Services and Combatant Commands to enable a Service agnostic prototype acquisition strategy.</p> <p>In FY 2023, the JAKCC project completed and transitioned work to U.S. Navy entities.</p>			
<p>Title: Wolfpack</p> <p>Description: Wolfpack will develop multi-domain prototypes that can deliver various payloads, both kinetic and non-kinetic, to a target from small, containerized launchers. Wolfpack leverages proven delivery platforms and integrates payloads to support ISR, kinetic, and decoy missions using attritable and swarming unmanned systems. Wolfpack prototypes will enable Joint mission engagement using integrated command and control of the Wolfpack unmanned platform and payload of swarming unmanned aerial systems that interface with multi-Service control systems.</p> <p>FY 2024 Plans: Continue system design and development. Integrate prototype payload with platform for system demonstration.</p> <p>FY 2025 Plans: Complete prototype system development and integrate prototype payload with platform for system live fire test.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase in funding between FY 2024 and FY 2025 is to complete the major prototyping development activities with the addition of a major live demonstration and final testing, and to transition the prototypes.</p>	6.490	12.900	24.000
<p>Title: Stratospheric Payload Development and Maturation</p> <p>Description: This effort will mature platforms, and develop and integrate payloads, in support of stratospheric domain operations. High altitude payloads will enable and improve multi-domain communication and collaboration, and provide additional intelligence, surveillance, and reconnaissance (ISR) capabilities.</p> <p>FY 2024 Plans: Continue development and testing of three prototype payloads to integrate into surrogate test platforms. Mature high altitude, long endurance platforms.</p> <p>FY 2025 Plans:</p>	26.094	34.000	26.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Complete development and testing of three prototype payloads that integrate into surrogate test platforms. FY 2024 to FY 2025 Increase/Decrease Statement: Decrease funding between FY 2024 and FY 2025 due to decrease in prototyping activities in FY 2025.				
Title: Swarming Prototype Attack Unmanned Aerial Systems Description: This effort will develop and integrate novel payloads and capabilities into existing unmanned aerial systems (UAS) to aid in kill-chain closure at the tactical edge. Effects will focus on autonomous target recognition, identification, and terminal engagement. Prototypes will seek to provide identification, targeting, and battle damage assessment with kinetic and non-kinetic effects. UAS will integrate swarm coordination and collaboration in multi-agent mission roles. Swarming Prototype Attack UAS will transition to the U.S. Navy. FY 2024 Plans: The Swarming Prototype Attack UAS effort will develop and test three prototype payloads to aid in find, fix, track, target, engage, and assess mission. FY 2025 Plans: The Swarming Prototype Attack UAS effort will complete development of prototype payloads and will demonstrate integrated system within unmanned aerial systems. FY 2024 to FY 2025 Increase/Decrease Statement: Decrease in funding between FY 2024 and FY 2025 due to the shift of prototyping to demonstrating and testing activities.		-	9.771	8.500
Title: Asymmetric Air Defense Description: This effort will accelerate the development and maturation of modular payloads for ground launched effects in support of air defense. Prototypes will allow for distributed and layered air defense sub-systems operating against a range of threats. Small form factor interceptors will operate in contested environments against peer adversaries. FY 2024 Plans: The Asymmetric Air Defense will start prototype payload and platform development, refining the modular architecture and prototyping first payload subsystem. FY 2024 to FY 2025 Increase/Decrease Statement: The decrease in funding from FY 2024 to FY 2025 is due to the completion of prototyping activities and the shift to demonstration activities.		-	10.620	-
Title: Joint Fires Network		10.046	30.000	79.275

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024
<p>Description: The Joint Fires Network (JFN) prototype will connect sensors and weapon systems using enterprise and edge information technology to remove the latency of target quality data between multi-domain forces. The JFN will combine actionable and distributed data from sensors of multiple services to find, fix, track, target, engage, and assess (F2T2EA) targets using the most viable weapon system through an integrated joint fire control solution that will enable information and decision superiority at the combatant command level.</p> <p>In FY 2023, Joint Fires Network developed an initial prototype system with relevant combatant command.</p> <p>FY 2024 Plans: Joint Fires Network will refine, test, and demonstrate a federated JFN capability with advanced application integration.</p> <p>FY 2025 Plans: The effort will continue development of the federated JFN capability, expanding associated infrastructure and enablers to expand the JFN network. The project will continue integration and connections to Service and mission partner capabilities to complete end-to-end Service kill chains and demonstrate an integrated Joint fires capability.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase in funding from FY 2024 to FY 2025 is due to an increase in prototyping activities and expansion of the network to demonstrate the integrated Joint kill chain.</p>			
<p>Title: Mines and Fast Attack Craft</p> <p>Description: This effort will integrate, demonstrate and assess multiple mine and fast attack craft prototypes in support of combatant command mission threads. Prototypes will seek to provide autonomy for identification, targeting, and battle damage assessment with kinetic effects.</p> <p>FY 2025 Plans: This effort will demonstrate and assess a fast attack craft for priority combatant command missions.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: New project added to the Rapid Prototyping Program’s portfolio. Project starts in FY 2025.</p>		-	-
<p>Title: High Power Microwave for Air Base Defense (HPM – ABAD)</p> <p>Description: The HPM prototype, Counter Cruise Missile Extended Range Air Base Air Defense (ABAD), is designed to deliver sufficient power levels to negate cruise missile threats. The system provides a low cost per shot and a deep magazine.</p>		6.200	-
			9.351

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
This FY 2023 effort integrated sensors with the ABAD HPM and assessed the capability of the integrated system. The risk mitigation testing supports transition to the Air Force and Navy, providing future capabilities to the U.S. Pacific Command.				
<p>Title: Nationwide Integration of Time Resiliency for Operations (NITRO)</p> <p>Description: This prototyping effort with the National Guard to provide resilient time to U.S. critical infrastructure to prevent disruptions. NITRO receives data from multiple space and terrestrial position, navigation, and tracking (PNT) services, determines the best accurate time, and distributes accurate time without requiring changes to end-user equipment.</p> <p>In FY 2023, this effort prototyped a meshed sensor grid for determining the best time signal available and transitioned the capability to the National Guard for continued development and testing.</p>		4.700	-	-
<p>Title: Project Mayo</p> <p>Description: Project Mayo is a classified effort to support National Defense Strategy's priorities to modernize key capabilities and evolve innovative operational concepts.</p> <p>In FY 2023 funding supported test and evaluation activities of an existing solution integrated into novel environments.</p>		3.900	-	-
<p>Title: Large Displacement - Autonomous Underwater Vehicle (LD-AUV)</p> <p>Description: The Large Displacement - Autonomous Underwater Vehicle (LD-AUV) project provides for evaluation of an AUV for long-range missions with large kinetic effects capable of being delivered subsurface to disrupt and deny an adversary's ability to establish or maintain power at sea. This effort will accelerate prototype military demonstration and evaluation of the LD-AUV system performance and capability.</p> <p>In FY 2023, this effort tested and evaluated the LD-AUV prototype vehicle and associated capabilities in relevant ocean environments to perform the missions required for large-payload delivery.</p>		1.000	-	-
<p>Title: Low SWAP-C RF Sensors</p> <p>Description: This effort will develop and demonstrate a wirelessly networked low-SWaP low-cost radio frequency (RF) sensor for asymmetric awareness over large maritime areas over a 12 month period. The prototype will monitor RF signals that indicate manned or unmanned activity over large geographical areas, particularly areas that stretch along a critical border or shoreline.</p> <p>In FY 2023, this effort developed a prototype system with tools to minimize the detectable RF footprint.</p>		0.830	2.000	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
<p>FY 2024 Plans: In FY 2024, the project will demonstrate the collection of signals in a realistic environment outside the continental United States.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Project ends in FY 2024.</p>				
<p>Title: Underwater Resupply/Autonomous Unmanned Vehicle (UWR AUV)</p> <p>Description: The Underwater Resupply/Autonomous Unmanned Vehicle (UWR AUV) effort will integrate novel capabilities onto commercial unmanned underwater vehicles (UUVs) for assessment and concept of operations (CONOPs) development. The UWR AUV will optimize sensors for maritime surveys, and integrate end effector payloads for kinetic and non-kinetic effects. Resulting data and integrated payloads will transition to the U.S. Navy.</p> <p>FY 2024 Plans: In FY 2024, this effort will integrate and optimize sensors for maritime surveys and payloads for delivery of kinetic and non-kinetic effects.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The decrease in funding from FY 2024 to FY 2025 is due to the decrease in required non-recurring engineering.</p>		-	9.000	-
<p>Title: Multi-domain Autonomous Tactical Expendable Radio (MATER)</p> <p>Description: MATER addresses the current challenge of low cost, attritable, frequency agile radios enabling joint force interoperability, especially on size weight and power constrained unmanned platforms. The intent of this effort is to leverage the multi-billion commercial investment in the development of low cost software-defined transceivers for the cellular industry and adapt militarily-relevant waveforms and applications for these platforms. This project has a foundation built upon the latest microelectronic processors operating in 5G cellphones, mobile broadband and IoT devices. Using these chips as the basis for a family of military communication devices allows the DoD not only to reap the benefits of their built-in advanced signal processing, encryption and acceleration capabilities, but also gain the size and power benefits of microelectronics manufactured at commodity scale on the most advanced micro-electronics manufacturing nodes for our low SWAP applications.</p>		2.375	-	-
<p>Title: Project Kahuna</p> <p>Description: The Project Kahuna effort will support the command and control of unmanned maritime platforms in disconnected, denied, intermittent, and limited communications environments. The effort will use proven commercial solutions to create and distribute an edge world model amongst a group of unmanned vehicles. The integrated solution will facilitate the rapid onboarding</p>		3.500	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
of machine learning perception and detection models, manage peer-to-peer synchronization in a robust manner, and seamlessly integrate size, weight, and power (SWaP)-efficient edge computation hardware.			
<p>Title: Multi-domain Unmanned Secure Integrated Communications (MUSIC)</p> <p>Description: This effort will develop and integrate an advanced networked capability to ensure tactical communications in denied and degraded environments. The capability will leverage multiple available communication networks to create resilient and dynamic communication pathways that seamlessly adapt to changing conditions. The highly dynamic and distributed communications network will be designed to scale across thousands of nodes and automatically prioritize traffic flows across the mission network in real-time.</p> <p>In FY 2023, MUSIC integrated the advanced networking capability for demonstration and assessment.</p>	2.000	-	-
<p>Title: Project Rain</p> <p>Description: This effort will develop an Intelligence, Surveillance, and Reconnaissance (ISR) and advanced Electronic Warfare (EW) payload in support of the Joint warfighter. Additional details are classified.</p> <p>FY 2025 Plans: In FY 2025, will develop a prototype system for a classified mission.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The project starts in FY 2025.</p>	0.000	-	5.000
Accomplishments/Planned Programs Subtotals	105.990	110.291	152.126

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

N/A

Remarks

N/A

D. Acquisition Strategy

RPP leverages the Services' and Defense Agencies' most efficient and effective acquisition approach for rapid prototyping. This includes using Other Transaction Authorities and new or existing contract vehicles.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

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	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SCIFIRE																												
Contract Award/Project Kickoff																												
Prototype Design Development																												
Prototype Development																												
Joint Affordable Kill-Chain Closure (JAKCC)																												
Project Kickoff																												
Prototype Design Development, Integration (Hardware/Software)																												
Project closeout																												
Wolfpack																												
Contract Award/Project Kickoff																												
Prototype Design Development, Integration (Hardware/Software)																												
Prototype Field Demonstration																												
Stratospheric Payload Development and Maturation																												
Project Kickoff																												
Prototype Design Development and Integration																												
Prototype Field Demonstration																												
Swarming Prototype Attack UAS																												
Project Kickoff																												
Prototype Development																												
Prototype Field Demonstration																												
Asymmetric Air Defense																												

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	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Project Kickoff																												
Prototype Development																												
Prototype Field Demonstration																												
Joint Fires Network (JFN)																												
Project Kickoff																												
Prototype Development																												
Prototype Field Demonstration																												
Mines and Fast Attack Craft																												
Project Kickoff																												
Prototype Development																												
Prototype Field Demonstration																												
High Power Microwave for Air Base Defense (HPM – ABAD)																												
Project Kickoff																												
Sensor Integration																												
Prototype Field Demonstration																												
Nationwide Integration of Time Resiliency for Operations (NITRO)																												
Project Kickoff																												
Prototype Development																												
Prototype Field Demonstration																												
Project Mayo																												
Project Kickoff																												
Prototype Field Assessment																												
Large Displacement - Autonomous Underwater Vehicle (LD-AUV)																												

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	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Project Kickoff</i>																												
<i>Prototype Development</i>																												
<i>Prototype Field Demonstration</i>																												
<i>Low SWAP-C RF Sensors</i>																												
<i>Project Kickoff</i>																												
<i>Prototype Development</i>																												
<i>Prototype Field Demonstration</i>																												
<i>Underwater Resupply/Autonomous Unmanned Vehicle (UWR AUV)</i>																												
<i>Project Kickoff</i>																												
<i>Prototype Development</i>																												
<i>Prototype Field Demonstration</i>																												
<i>Multi-domain Autonomous Tactical Expendable Radio (MATER)</i>																												
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<i>Project Kickoff</i>																												
<i>Prototype Development</i>																												
<i>Prototype Field Demonstration</i>																												
<i>Multi-domain Unmanned Secure Integrated Communications (MUSIC)</i>																												
<i>Project Kickoff</i>																												
<i>Prototype Development</i>																												
<i>Prototype Field Demonstration</i>																												

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FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Project Rain	
Project Kickoff	
Prototype Development	
Prototype Field Demonstration	

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

SCIFIRE	
Contract Award/Project Kickoff	
Prototype Design Development	
Prototype Development	
Joint Affordable Kill-Chain Closure (JAKCC)	
Project Kickoff	
Prototype Design Development, Integration (Hardware/Software)	
Project closeout	
Wolfpack	
Contract Award/Project Kickoff	
Prototype Design Development, Integration (Hardware/Software)	
Prototype Field Demonstration	
Stratospheric Payload Development and Maturation	
Project Kickoff	
Prototype Design Development and Integration	

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	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prototype Field Demonstration					██████████																							
Swarming Prototype Attack UAS																												
Project Kickoff					████																							
Prototype Development					██████████																							
Prototype Field Demonstration													████															
Asymmetric Air Defense																												
Project Kickoff					████																							
Prototype Development					██████████																							
Prototype Field Demonstration													██████															
Joint Fires Network (JFN)																												
Project Kickoff			████																									
Prototype Development			██████████																									
Prototype Field Demonstration							██████████																					
Mines and Fast Attack Craft																												
Project Kickoff													████															
Prototype Development													██████████															
Prototype Field Demonstration																	██████████											
High Power Microwave for Air Base Defense (HPM – ABAD)																												
Project Kickoff																												
Sensor Integration			██████																									
Prototype Field Demonstration			██████████																									
Nationwide Integration of Time Resiliency for Operations (NITRO)																												
Project Kickoff			████																									
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</i>
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	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prototype Field Demonstration					■																							
<i>Project Mayo</i>																												
Project Kickoff			■																									
Prototype Field Assessment			■	■																								
<i>Large Displacement - Autonomous Underwater Vehicle (LD-AUV)</i>																												
Project Kickoff			■																									
Prototype Development							■	■																				
Prototype Field Demonstration												■																
<i>Low SWAP-C RF Sensors</i>																												
Project Kickoff			■	■																								
Prototype Development			■	■			■	■																				
Prototype Field Demonstration																												
<i>Underwater Resupply/Autonomous Unmanned Vehicle (UWR AUV)</i>																												
Project Kickoff							■																					
Prototype Development											■	■																
Prototype Field Demonstration																■												
<i>Multi-domain Autonomous Tactical Expendable Radio (MATER)</i>																												
Project Kickoff				■																								
Prototype Development							■	■																				
Prototype Field Demonstration																												
<i>Project Kahuna</i>																												
Project Kickoff				■																								
Prototype Development																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</i>
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	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Prototype Field Demonstration																																
<i>Multi-domain Unmanned Secure Integrated Communications (MUSIC)</i>																																
Project Kickoff																																
Prototype Development																																
Prototype Field Demonstration																																
<i>Project Rain</i>																																
Project Kickoff																																
Prototype Development																																
Prototype Field Demonstration																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SCIFIRE				
Contract Award/Project Kickoff	1	2021	1	2021
Prototype Design Development	2	2021	4	2023
Prototype Development	4	2023	1	2024
Joint Affordable Kill-Chain Closure (JAKCC)				
Project Kickoff	4	2020	4	2020
Prototype Design Development, Integration (Hardware/Software)	1	2021	3	2022
Project closeout	1	2023	3	2023
Wolfpack				
Contract Award/Project Kickoff	4	2023	4	2023
Prototype Design Development, Integration (Hardware/Software)	4	2023	3	2025
Prototype Field Demonstration	4	2025	4	2025
Stratospheric Payload Development and Maturation				
Project Kickoff	2	2023	2	2023
Prototype Design Development and Integration	4	2023	4	2025
Prototype Field Demonstration	1	2024	2	2026
Swarming Prototype Attack UAS				
Project Kickoff	3	2024	3	2024
Prototype Development	4	2024	4	2025
Prototype Field Demonstration	1	2026	1	2026
Asymmetric Air Defense				
Project Kickoff	3	2024	3	2024

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Prototype Development	4	2024	4	2025
Prototype Field Demonstration	3	2025	4	2025
<i>Joint Fires Network (JFN)</i>				
Project Kickoff	3	2023	3	2023
Prototype Development	4	2023	1	2025
Prototype Field Demonstration	1	2025	4	2025
<i>Mines and Fast Attack Craft</i>				
Project Kickoff	2	2025	2	2025
Prototype Development	3	2025	3	2026
Prototype Field Demonstration	4	2026	2	2027
<i>High Power Microwave for Air Base Defense (HPM – ABAD)</i>				
Project Kickoff	1	2018	1	2018
Sensor Integration	3	2023	4	2023
Prototype Field Demonstration	4	2023	4	2024
<i>Nationwide Integration of Time Resiliency for Operations (NITRO)</i>				
Project Kickoff	2	2023	2	2023
Prototype Development	3	2023	2	2024
Prototype Field Demonstration	2	2024	2	2024
<i>Project Mayo</i>				
Project Kickoff	3	2023	3	2023
Prototype Field Assessment	3	2023	1	2024
<i>Large Displacement - Autonomous Underwater Vehicle (LD-AUV)</i>				
Project Kickoff	3	2023	3	2023
Prototype Development	1	2024	2	2024
Prototype Field Demonstration	3	2024	3	2024

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense **Date:** March 2024

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604331D8Z / <i>Rapid Prototyping Program</i>	Project (Number/Name) 638 / <i>Rapid Prototyping Program</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Low SWAP-C RF Sensors</i>				
Project Kickoff	4	2023	4	2024
Prototype Development	4	2023	2	2024
Prototype Field Demonstration	3	2024	3	2024
<i>Underwater Resupply/Autonomous Unmanned Vehicle (UWR AUV)</i>				
Project Kickoff	1	2024	1	2024
Prototype Development	2	2024	1	2025
Prototype Field Demonstration	2	2025	3	2025
<i>Multi-domain Autonomous Tactical Expendable Radio (MATER)</i>				
Project Kickoff	4	2023	4	2023
Prototype Development	1	2024	4	2024
Prototype Field Demonstration	4	2024	1	2025
<i>Project Kahuna</i>				
Project Kickoff	4	2023	4	2023
Prototype Development	4	2024	4	2024
Prototype Field Demonstration	2	2024	1	2025
<i>Multi-domain Unmanned Secure Integrated Communications (MUSIC)</i>				
Project Kickoff	4	2023	1	2024
Prototype Development	1	2024	1	2025
Prototype Field Demonstration	2	2024	1	2025
<i>Project Rain</i>				
Project Kickoff	2	2024	2	2024
Prototype Development	3	2024	2	2025
Prototype Field Demonstration	2	2025	3	2025