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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</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	45.619	214.100	168.855	-	168.855	0.000	0.000	0.000	0.000	0.000	428.574
0385: <i>Rapid Prototype Development</i>	0.000	0.000	214.100	3.000	-	3.000	0.000	0.000	0.000	0.000	0.000	217.100
2803: <i>Classified #5</i>	0.000	0.366	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.366
2804: <i>OCTOPUS</i>	0.000	16.888	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	16.888
2805: <i>GRASP-X</i>	0.000	3.606	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	3.606
2806: <i>Classified #1</i>	0.000	19.230	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.230
2807: <i>Classified #2</i>	0.000	5.529	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.529
6021: <i>OpenSensorHub</i>	0.000	0.000	0.000	0.903	-	0.903	0.000	0.000	0.000	0.000	0.000	0.903
6022: <i>JRBL Cage</i>	0.000	0.000	0.000	6.232	-	6.232	0.000	0.000	0.000	0.000	0.000	6.232
6023: <i>Unmanned Maritime Deployment</i>	0.000	0.000	0.000	21.813	-	21.813	0.000	0.000	0.000	0.000	0.000	21.813
6024: <i>Pacific Haze</i>	0.000	0.000	0.000	17.048	-	17.048	0.000	0.000	0.000	0.000	0.000	17.048
6025: <i>Maritime Mines and Kinetic Effects</i>	0.000	0.000	0.000	18.065	-	18.065	0.000	0.000	0.000	0.000	0.000	18.065
6026: <i>Cadbury</i>	0.000	0.000	0.000	32.697	-	32.697	0.000	0.000	0.000	0.000	0.000	32.697
6027: <i>PENTHouse</i>	0.000	0.000	0.000	9.032	-	9.032	0.000	0.000	0.000	0.000	0.000	9.032
6028: <i>Echo Wraith / Omniscient Architect</i>	0.000	0.000	0.000	18.516	-	18.516	0.000	0.000	0.000	0.000	0.000	18.516
6029: <i>Maven + Bloodhound</i>	0.000	0.000	0.000	13.549	-	13.549	0.000	0.000	0.000	0.000	0.000	13.549
6030: <i>Classified</i>	0.000	0.000	0.000	28.000	-	28.000	0.000	0.000	0.000	0.000	0.000	28.000

Note
The Navy's Rapid Prototyping, Experimentation and Demonstration (RPED) program with oversight and accountability of projects funded by the DON Accelerated Acquisition Board of Directors (AABoD) concluded in FY21. As a result, Navy did not request FY22 RPED funding. To support the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)), Rapid Defense Experimentation Reserve (RDER) initiative, the projects described herein are the Navy RDER projects, or the Navy's portion of joint service RDER projects, as directed by OUSD(R&E).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	
A. Mission Description and Budget Item Justification <p>To facilitate rapid modernization of the force, the RDER initiative was established in the Defense Planning Guidance for Fiscal Year 2023-2027, to encourage multi-component experimentation through a campaign of learning. Services, Agencies, and other participating organizations are to identify "best of breed" capabilities developed among the DoD prototyping programs, and execute approved projects through large-scale experiments in order to refine and/or validate the Joint Warfighting Concept (JWC). Organizations are to nominate proposals to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) that are multi-component involving Joint Services, International partners and/or other government agencies and link to one or more of the four key supporting concepts ("functional battles") of the Joint Warfighting Concept: Joint Concept for Fires, Joint Concept for Command and Control, Joint Concept for Contested Logistics, and Joint Concept for Information Advantage.</p> <p>The Department will implement multiple RDER experimentation series through Service nominated projects with execution timelines ranging from one to two years. The USD (R&E) will review project progress, and recommend new projects at least annually with the goal of quickly incorporating the most promising innovative prototypes into experiments, and promptly terminating projects that fail to achieve expectations. To incentivize a disciplined approach to rapidly identify, incorporate, and execute projects largely through the Military Services, the Department will fund approved Service projects for the upcoming fiscal year out of the Department reserves. Funding decisions on additional funds in follow-on years for new projects, and funding decrements for project terminations will be incorporated in budgets annually based on emerging requirements and periodic assessments of project viability. Services will execute these funds under oversight of the OSD in a manner consistent with the experimentation scenario for which individual projects were selected.</p> <p>Service experimentation outcomes will be designed to validate required capabilities enabling the JWC by evaluating and integrating prototyped technologies in operationally relevant, multi-domain environments. Experimentation results will facilitate Joint Staff analysis in the evaluation of the Joint Warfighting Concept, assist the Joint Requirements Oversight Counsel in requirements determination, and inform the Deputy's Management Action Group to make budget decisions that effect changes throughout the Department.</p> <p>Advanced Component Development and Prototypes (ACD&P) efforts necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment are funded in this Program Element (PE). Most of the work in this PE can be classified between Technology Readiness Level (TRL) 6 (system/subsystem model or prototype demonstration in a relevant environment) and TRL 7 (system prototype demonstration in an operational environment).</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>
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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	50.580	214.100	0.000	-	0.000
Current President's Budget	45.619	214.100	168.855	-	168.855
Total Adjustments	-4.961	0.000	168.855	-	168.855
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.999	0.000			
• SBIR/STTR Transfer	-1.962	0.000			
• Rate/Misc Adjustments	0.000	0.000	168.855	-	168.855

Change Summary Explanation

FY23 funding reduced by \$-1.962M due to SBIR assessment.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>					Project (Number/Name) 0385 / <i>Rapid Prototype Development</i>		
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
0385: <i>Rapid Prototype Development</i>	0.000	0.000	214.100	3.000	-	3.000	0.000	0.000	0.000	0.000	0.000	217.100
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To facilitate rapid modernization of the force, the RDER initiative was established in the Defense Planning Guidance for Fiscal Year 2023-2027, to encourage multi-component experimentation through a campaign of learning. Services, Agencies, and other participating organizations are to identify "best of breed" capabilities developed among the DoD prototyping programs and execute approved projects through large-scale experiments in order to refine and/or validate the Joint Warfighting Concept (JWC). Organizations are to nominate proposals to the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) that are multi-component involving Joint Services, International partners and/or other government agencies and link to one or more of the four key supporting concepts ("functional battles") of the Joint Warfighting Concept: Joint Concept for Fires, Joint Concept for Command and Control, Joint Concept for Contested Logistics, and Joint Concept for Information Advantage.

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 2803 / <i>Classified #5</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
2803: <i>Classified #5</i>	0.000	0.366	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.366
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Details held at a higher classification

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>				Project (Number/Name) 2804 / <i>OCTOPUS</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2804: <i>OCTOPUS</i>	0.000	16.888	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	16.888
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Octopus is an integration of multi-modal communication technologies enabling multi-domain remote command and control (C2), long-range fires, and enhanced communications to support Joint Warfighting operations in a contested environment. Octopus will enable remote C2 by leveraging a rapidly deployed, cabled infrastructure, to employ acoustic, optical, and Radio Frequency (RF) communications and allow remote operators to communicate with air, surface, and subsurface assets. Octopus provides resilient communications to the battlespace Commander in a denied environment. This effort directly supports several of the Combatant Commands Integrated Priority List (IPLs), and will provide insight into Concept of Operations (CONOPs) development in support of the Joint Warfighting Concept (JWC).

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 2805 / <i>GRASP-X</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
2805: <i>GRASP-X</i>	0.000	3.606	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	3.606
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Geo-location and Reporting of Advanced Signals Pacific - eXpanded (GRASP-X) project 2805 is a follow-on project to expand the GRASP capability to additional threat signals of interest to USINDOPACOM. NAVAIR PMA-265 Program Office, EA-18G will transition capability into base Command & Control (C2) and Electromagnetic Support (ES) programs.

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 2806 / <i>Classified #1</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
2806: <i>Classified #1</i>	0.000	19.230	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	19.230
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Details held at a higher classification

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 2807 / <i>Classified #2</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>2807: Classified #2</i>	0.000	5.529	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.529
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Details held at a higher classification

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6021 / <i>OpenSensorHub</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
6021: <i>OpenSensorHub</i>	0.000	0.000	0.000	0.903	-	0.903	0.000	0.000	0.000	0.000	0.000	0.903
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6021 OpenSensorHub

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6022 / <i>JRBL Cage</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
6022: <i>JRBL Cage</i>	0.000	0.000	0.000	6.232	-	6.232	0.000	0.000	0.000	0.000	0.000	6.232
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6022 JRBL Cage

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>				Project (Number/Name) 6023 / <i>Unmanned Maritime Deployment</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
6023: <i>Unmanned Maritime Deployment</i>	0.000	0.000	0.000	21.813	-	21.813	0.000	0.000	0.000	0.000	0.000	21.813
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6023 Unmanned Maritime Deployment

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6024 / <i>Pacific Haze</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
6024: <i>Pacific Haze</i>	0.000	0.000	0.000	17.048	-	17.048	0.000	0.000	0.000	0.000	0.000	17.048
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6024 Pacific Haze

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>				Project (Number/Name) 6025 / <i>Maritime Mines and Kinetic Effects</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
6025: <i>Maritime Mines and Kinetic Effects</i>	0.000	0.000	0.000	18.065	-	18.065	0.000	0.000	0.000	0.000	0.000	18.065
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6025 Maritime Mines and Kinetic Effects

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6026 / <i>Cadbury</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
6026: <i>Cadbury</i>	0.000	0.000	0.000	32.697	-	32.697	0.000	0.000	0.000	0.000	0.000	32.697
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6026 Cadbury

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6027 / PENTHouse
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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
6027: PENTHouse	0.000	0.000	0.000	9.032	-	9.032	0.000	0.000	0.000	0.000	0.000	9.032
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6027 PENTHouse

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>				Project (Number/Name) 6028 / <i>Echo Wraith / Omniscient Architect</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
6028: <i>Echo Wraith / Omniscient Architect</i>	0.000	0.000	0.000	18.516	-	18.516	0.000	0.000	0.000	0.000	0.000	18.516
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6028 Echo Wraith / Omniscient Architect

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6029 / <i>Maven + Bloodhound</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>6029: Maven + Bloodhound</i>	0.000	0.000	0.000	13.549	-	13.549	0.000	0.000	0.000	0.000	0.000	13.549
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6029 Maven + Bloodhound

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604030N / <i>Rapid Prototyping, Experimentation & Dem</i>	Project (Number/Name) 6030 / <i>Classified</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
6030: <i>Classified</i>	0.000	0.000	0.000	28.000	-	28.000	0.000	0.000	0.000	0.000	0.000	28.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

6030 Classified