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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Office of the Secretary Of Defense **Date:** May 2021

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0604875D8Z I <i>Joint Systems Architecture Development</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	27.726	8.971	8.492	7.859	-	7.859	-	-	-	-	-	-
875: <i>Portfolio Systems Acquisition (PSA)</i>	21.742	7.975	4.408	4.570	-	4.570	-	-	-	-	-	-
220: <i>Electronic Warfare Executive Committee</i>	5.984	0.996	4.084	3.289	-	3.289	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Joint Systems Architecture Development (JSAD) account directly supports the first priority of the 2018 National Defense Strategy, increasing lethality. All efforts within the Office of the Deputy Assistance Secretary of Defense (DASD) for Platform and Weapon Portfolio Management (PWPM) strive to deliver the warfighter the best equipment and systems, and to do so by performing top down, national security strategy-driven capabilities-based planning and fully leveraging Department and acquisition reform initiatives. Department of Defense (DoD) Instruction 5000.02 and Chairman of the Joint Chiefs of Staff Instruction 3170.01 promulgate capabilities-based requirements and acquisition processes. The JSAD program enables collaborative efforts to achieve these goals with a focus on Major Defense Acquisition Programs (MDAPs). These efforts entail use of Capability Portfolio Management, as well as application of mission engineering to develop mission threads; assessments of joint capability areas and joint integrating concepts; development of system-related data; integrated roadmaps to support acquisition investment decisions; and assessments of MDAPs in a capability area context. Activities in the JSAD project are divided into three areas:(1) capability-based analysis; (2) roadmaps; and (3) support tools and guidance. Capability-based analysis provides analysis of the different technology, functionality, and integration impacts of systems on warfighting capability. Acquisition roadmaps guide systems development and associated investment plans. JSAD support tools and guidance initiatives develop systems data, and tools, exploit modeling and simulation and architecture efforts to improve DoD’s overall assessment capability. These efforts guide the development and improve the testing and fielding of integrated systems of systems in order to achieve Joint mission capabilities. The Department uses enterprise-wide approaches which include:(1) horizontal integration within the Department and unity of effort through greater interagency collaboration; (2) engaging in a coordinated and portfolio-based approach to planning, programming, budgeting and execution; and (3) significant reforms at the governance, management and execution levels. To accomplish this intent, there needs to be a focused goal and concerted emphasis on shifting from systems acquisition to capabilities-based portfolio management (or portfolio systems acquisition). This program enables collaborative efforts to implement the Quadrennial Defense Review (QDR) direction outlined above in order to achieve portfolio systems acquisition goals. The program is broken up into two focus areas (Capability Portfolio Management and Reform Initiatives).

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B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	9.593	8.497	8.436	-	8.436
Current President's Budget	8.971	8.492	7.859	-	7.859
Total Adjustments	-0.622	-0.005	-0.577	-	-0.577
• Congressional General Reductions	-	-0.005			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.270	-			
• SBIR/STTR Transfer	-0.352	-			
• Program Adjustments	-	-	-0.577	-	-0.577

Change Summary Explanation

The FY 2022 funding request was reduced by \$0.418 million to account for the availability of prior year execution balances.

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Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0604875D8Z / Joint Systems Architecture Development				Project (Number/Name) 875 / Portfolio Systems Acquisition (PSA)			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
875: Portfolio Systems Acquisition (PSA)	21.742	7.975	4.408	4.570	-	4.570	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Department continues to use enterprise-wide approaches which are met through: (1) horizontal integration within the Department and unity of effort through greater interagency collaboration; (2) engaging in a coordinated and portfolio-based approach to planning, programming, budgeting and execution; and (3) significant reforms at the governance, management and execution levels. The Adaptive Acquisition Framework process, enacted in 2019 and 2020 as part of acquisition reform, provides the Defense Acquisition Executive and the Service Acquisition Executives alternative acquisition paths for rapid prototyping and rapid acquisition, in an effort to use the fastest, most affordable, and efficient way to deliver new weapon systems with mature technologies and maintains disciplined systems engineering approaches. The Department will improve how it matches requirements with mature technologies, maintains disciplined systems engineering approaches. To accomplish this direction, there needed to be a focused goal and concerted emphasis on shifting from acquisition of individual systems to Capability Portfolio Management. This program enables collaborative efforts to implement the NDR direction outlined above and achieve portfolio systems acquisition goals and to develop and implement acquisition reform initiatives.

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

	FY 2020	FY 2021	FY 2022
Title: Portfolio Systems Acquisition (PSA)	7.975	4.408	4.570
Description: The program is broken up into two focus areas (Portfolio Management and Reform Initiatives) and consolidates work previously performed under various other Program Elements			
FY 2021 Plans: FY 2021 Plans:			
- Continue efforts to further develop Capability Portfolio Management practices, including supporting Mission Engineering principles in an effort to make both practices more widespread in use through the Office of the Secretary of Defense, the Joint Staff, and the services.			
- Further develop portfolio management of programs falling within the Air, Ground, Maritime and Electromagnetic Warfare mission areas, to include application of mission engineering analysis of kill chains.			
- Identify portfolio and program synergies, reduce duplication, and identify opportunities for cost savings.			
- Provide technical expertise in support of warfare area portfolios.			
- Assess progress of program management initiatives and continue support to a variety of certification and qualification standards activities.			
- Utilized "reliability by design", capability, capacity, and lethality analyses and support to programs.			

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Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0604875D8Z / <i>Joint Systems Architecture Development</i>	Project (Number/Name) 875 / <i>Portfolio Systems Acquisition (PSA)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
<ul style="list-style-type: none"> - Update roadmaps and, where appropriate, generate new roadmaps to guide investments in critical areas (e.g., future vertical lift, unmanned systems, ground vehicles, weapons/munitions, and Integrated Air and Missile Defense (IAMD)). - Continue analytical support for the ground combat vehicle portfolio. - Continue analytical support for the naval warfare portfolio. - Continue analytical support for the munitions process, from requirements generation to demilitarization. - Further implement Mission Engineering practices within A&S to evaluate warfighter priority mission areas with a rigorous, data-driven analytic process to determine how systems work together in an operationally relevant environment and identify ways to integrate technology and systems to provide affordable capability solutions for our warfighters. - Respond to Government Accountability Office (GAO) inquiries. - Respond to DOD Inspector General (DODIG) inquiries. - Review Council on Foreign Investment in the United States (CFIUS) cases. - Reshape focus and drive solution-oriented outcomes and decisions in all senior-level leadership meetings for the F-35 program to include Executive Steering Groups (ESGs) and other information and decision forums. - Collaborate and shape outcomes across all Programming and Budget Review (PBR) activities such as Strategic Portfolio Reviews (SPRs), Issue Teams, Competitive Area Studies. - Provide support and participate, as needed, in the Joint Capabilities Integration and Development process, to include functional warfare working groups, Functional Capabilities Boards (FCBs), Joint Capabilities Boards (JCBs) and Joint Requirements Oversight Council (JROCs). - Lead, participate in, and provide support to the Strategic Portfolio Reviews (SPRs) and assigned issue paper teams. - Provide support to the Deputy's Management Action Group (DMAG) and shape outcomes through analytical efforts. - Provide support to the Secretary's Weekly Priority Review (SWPR) - Provide support to the 3 Star Programmer's meetings. <p>FY 2022 Plans: FY 2022 Plans:</p> <ul style="list-style-type: none"> - Continue efforts to further develop Capability Portfolio Management practices, including supporting Mission Engineering principles in an effort to make both practices more widespread in use through the Office of the Secretary of Defense, the Joint Staff, and the services. - Further develop portfolio management of programs falling within the Air, Ground, Maritime and Electromagnetic Warfare mission areas, to include application of mission engineering analysis of kill chains. - Continue to identify portfolio and program synergies, reduce duplication, and identify opportunities for cost savings. - Continue to provide technical expertise in support of warfare area portfolios. - Continue to assess progress of program management initiatives and continue support to a variety of certification and qualification standards activities. 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
<ul style="list-style-type: none"> - Continue to update roadmaps and, where appropriate, generate new roadmaps to guide investments in critical areas (e.g., future vertical lift, unmanned systems, ground vehicles, weapons/munitions, and Integrated Air and Missile Defense (IAMD)). - Continue analytical support for the ground combat vehicle portfolio. - Continue analytical support for the naval warfare portfolio. - Continue analytical support for the munitions process, from requirements generation to demilitarization. - Further implement Mission Engineering practices within A&S to evaluate warfighter priority mission areas with a rigorous, data-driven analytic process to determine how systems work together in an operationally relevant environment and identify ways to integrate technology and systems to provide affordable capability solutions for our warfighters. - Respond to Government Accountability Office (GAO) inquiries. - Respond to DOD Inspector General (DODIG) inquiries. - Review Council on Foreign Investment in the United States (CFIUS) cases. - Continue to reshape focus and drive solution-oriented outcomes and decisions in all senior-level leadership meetings for the F-35 program to include Executive Steering Groups (ESGs) and other information and decision forums. - Continue to collaborate and shape outcomes across all Programming and Budget Review (PBR) activities such as Strategic Portfolio Reviews (SPRs), Issue Teams, Competitive Area Studies. - Continue to provide support and participate, as needed, in the Joint Capabilities Integration and Development process, to include functional warfare working groups, Functional Capabilities Boards (FCBs), Joint Capabilities Boards (JCBs) and Joint Requirements Oversight Council (JROCs). - Continue to lead, participate in, and provide support to the Strategic Portfolio Reviews (SPRs) and assigned issue paper teams. - Continue to provide support to the Deputy's Management Action Group (DMAG) and shape outcomes through analytical efforts. - Continue to provide support to the Secretary's Weekly Priority Review (SWPR) - Continue to provide support to the 3 Star Programmer's meetings. <p><i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> FY 2022 increase due to a greater focus on establishing program management from a portfolio management perspective and application of mission engineering analyses of programs falling within assigned portfolios. Specifically, personnel will continue to develop outcomes based evaluation metrics and experimental designs to provide evaluation of mission effects/kill chains.</p>			
Accomplishments/Planned Programs Subtotals	7.975	4.408	4.570

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

N/A

Remarks

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D. Acquisition Strategy
N/A

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Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0604875D8Z / <i>Joint Systems Architecture Development</i>				Project (Number/Name) 220 / <i>Electronic Warfare Executive Committee</i>			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
220: <i>Electronic Warfare Executive Committee</i>	5.984	0.996	4.084	3.289	-	3.289	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Electromagnetic Warfare (EW) Executive Committee (EXCOM) - co-chaired by the Under Secretary of Defense for Acquisition & Sustainment (USD(A&S)), and the Vice Chairman of the Joint Chiefs of Staff (VCJCS) - is tasked to provide senior oversight, coordination, budget/capability harmonization, and advice on EW matters to the Secretary of Defense, Deputy Secretary of Defense (DSD), and the Deputy's Management Action Group (DMAG). This program develops, maintains, and implements the overarching DoD EW Strategy and Implementation Plan to achieve Electromagnetic Spectrum (EMS) superiority. This program provides technical analyses, technology assessments, capability and capability gap identification, intelligence and threat evaluations to inform DoD EW requirements, acquisition programs, and investment decisions. This program also advances EW needs in modeling, simulation, test, exercises, experimentation, and training. This budget exhibit also provides support to the Electromagnetic Spectrum Operations Cross Functional Team (EMSO CFT) which was established and instituted in FY 2019.

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

	FY 2020	FY 2021	FY 2022
Title: Electronic Warfare Executive Committee	0.996	4.084	3.289
<p>Description: Description: Funds will be used to conduct analytic assessments of fielded and planned U.S. EW capabilities, threat analysis, and physics-based modeling and simulation of electronic warfare capabilities to support the Deputy Secretary of Defense-directed Electromagnetic Warfare (EW) Executive Committee (EXCOMM) and provide support to the Electromagnetic Spectrum Operations Cross Functional Team (EMSO CFT).</p> <p>FY 2021 Plans: Continue mission engineering analyses and integration to incorporate soft kill and Electromagnetic Warfare effects and weapon systems in critical mission thread areas in order to meet evolving threats. - Develop plans and conduct Doctrine, Organization, Training, Material, Leadership and Education, Personnel, Facilities and Policy (DOTMLPF-P) initiatives to implement the Department's EW strategy. - Continue to perform the necessary analytic underpinning to develop and field advanced EW capabilities, including EW manning, training, exercises, modeling and simulation. - Identify opportunities for Cross-Service EW collaboration, including EW research and development, acquisition programs, multi-purpose hardware and software, and other initiatives to increase EW investment efficiencies and promote interoperability.</p> <p>FY 2022 Plans: - Continue mission engineering analyses and integration to incorporate soft kill and Electromagnetic Warfare effects and weapon systems in critical mission thread areas in order to meet evolving threats.</p>			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<ul style="list-style-type: none"> - Continue to develop plans and conduct Doctrine, Organization, Training, Material, Leadership and Education, Personnel, Facilities and Policy (DOTMLPF-P) initiatives to implement the Department's EW strategy. - Continue to perform the necessary analytic underpinning to develop and field advanced EW capabilities, including EW manning, training, exercises, modeling and simulation. - Identify opportunities for Cross-Service EW collaboration, including EW research and development, acquisition programs, multi-purpose hardware and software, and other initiatives to increase EW investment efficiencies and promote interoperability. <p><i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> The FY 2022 funding request was reduced by \$0.418 million to account for the availability of prior year execution balances. Decrease also reflects program adjustments.</p>				
Accomplishments/Planned Programs Subtotals		0.996	4.084	3.289
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
D. Acquisition Strategy				
N/A				