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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	10.161	2.986	3.076	4.499	-	4.499	5.080	5.445	5.520	5.628	Continuing	Continuing
P875: <i>Portfolio Systems Acquisition (PSA)</i>	10.161	2.986	2.979	4.499	-	4.499	5.080	5.445	5.520	5.628	Continuing	Continuing
P220: <i>Electronic Warfare Executive Committee</i>	-	0.000	0.097	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Department and acquisition reform initiatives call for top down, national security strategy-driven capabilities-based planning. 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 include warfighting capability-based analyses; 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 has also undergone an institutional reorientation or shift in emphasis from organization-specific to enterprise-wide approaches. This means: (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 direction, 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 QDR direction outlined above in order to achieve portfolio systems acquisition goals. The program is broken up into two focus areas (Portfolio Management and Reform Initiatives).

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	3.087	3.081	4.634	-	4.634
Current President's Budget	2.986	3.076	4.499	-	4.499
Total Adjustments	-0.101	-0.005	-0.135	-	-0.135
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.100	-			
• FY16 FFRDC	-	-0.005	-	-	-
• Efficiency Reductions	-	-	-0.085	-	-0.085
• Economic Assumptions	-	-	-0.035	-	-0.035
• Other Reductions	-	-	-0.015	-	-0.015

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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) P875 / <i>Portfolio Systems Acquisition (PSA)</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P875: <i>Portfolio Systems Acquisition (PSA)</i>	10.161	2.986	2.979	4.499	-	4.499	5.080	5.445	5.520	5.628	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Departments 2005 Quadrennial Defense Review (QDR) laid out the need for an institutional reorientation or shift in emphasis from organization-specific to enterprise-wide approaches. This meant: (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 Department's 2010 QDR report further addressed reforming how we buy, noting that the conventional acquisition process is too long and too cumbersome to fit the needs of the many systems that require continuous changes and upgrades - a challenge that will become only more pressing over time. Better Buying Power (BBP) is the implementation of best practices to strengthen the Defense Department's buying power, improve industry productivity, and provide an affordable, value-added military capability to the Warfighter. Launched in 2010, BBP encompasses a set of fundamental acquisition principles to achieve greater efficiencies through affordability, cost control, elimination of unproductive processes and bureaucracy, and promotion of competition. BBP initiatives also incentivize productivity and innovation in industry and Government, and improve tradecraft in the acquisition of services. 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 portfolio management (or portfolio systems acquisition). This program enables collaborative efforts to implement the QDR direction outlined above and advance BBP initiatives to achieve portfolio systems acquisition goals and to develop and implement acquisition reform initiatives.

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

	FY 2015	FY 2016	FY 2017
Title: Portfolio Systems Acquisition (PSA)	2.986	2.979	4.499
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 2015 Accomplishments:			
-Continued to support Mission Area Portfolio Assessments and warfare areas to identify portfolio and program synergies, reduce duplication, and identify opportunities for cost savings.			
-Conducted additional analyses and support implementation of Better Buying Power (BBP) initiatives.			
-Provided technical expertise in support of warfare area portfolios, including Tactical Air (TACAIR) (e.g., F-35), unmanned systems, electronic warfare, and land warfare and munitions.			
--Specific research areas included the areas of critical energetics, design for demil, and joint munitions modeling and simulation.			

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

	FY 2015	FY 2016	FY 2017
<ul style="list-style-type: none"> -Assessed progress of program management initiatives and continue support to a variety of certification and qualification standards activities. -Supported research in support of FY15 National Defense Authorization Act (NDAA) report to Congress. -Continued "reliability by design" analyses and support to programs. --Developed initial reliability model to assist in calculating investments needed to reach certain reliability values --Assisted in the development of requirements for G/ATOR radar reliability improvement and 3DELRR radar reliability requirements. --Studied Joint Strike Fighter (JSF) reliability data and growth predictions to support senior leadership DAB preparation. --Studied PKI SIPRNET token reliability problems and made recommendations for way ahead. -Developed DoD courses of action and views on homeland defense implementation and compliance issues in multiple bilateral and multilateral fora. -Updated roadmaps to guide investments in critical areas (e.g., future vertical lift, weapons, and Integrated Air and Missile Defense (IAMD)). -Continued analytical support for the IAMD portfolio. -Completed the Modularized Millimeter Wave(MMW) study and fold results into the FY2016 President's Budget Review. -Developed DoD courses of action and views on conventional and strategic arms control treaties implementation and compliance issues in multiple bilateral and multilateral fora. -Provided analytical support to the Homeland Defense Coordinator and DoD-DHS Capability Development Working Group (CDWG) functions within OUSD(AT&L). <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> -Continue and expand support Mission Area Portfolio Assessments and warfare areas to identify portfolio and program synergies, reduce duplication, and identify opportunities for cost savings. -Conduct additional analyses and support implementation of updated Better Buying Power (BBP) initiatives. -Provide technical expertise in support of warfare area portfolios including Tactical Air (TACAIR), unmanned systems, electronic warfare, and land warfare and munitions. -Assess progress of program management initiatives and continue support to a variety of certification and qualification standards activities. -Continue "reliability by design" analyses and support to programs. --Continue radar systems study of G/ATOR and 3DELRR reliability to reduce O&S cost. --Study requirements generation process to develop criteria to help ensure requirements are based on sound physics and understand correct entry points for OSD; goal is reduced test costs and better milestone readiness. --Continue support to programs/initiate new analyses. 			

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

	FY 2015	FY 2016	FY 2017
<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 and Integrated Air and Missile Defense (IAMD)). -Continue analytical support for the IAMD portfolio. -Provide analysis and support to the Homeland Defense Coordinator and DoD-DHS Capability Development Working Group (CDWG) Executive Secretary functions within OUSD(AT&L). <p>FY 2017 Plans:</p> <ul style="list-style-type: none"> -Continue and expand support Mission Area Portfolio Assessments and warfare areas to identify portfolio and program synergies, reduce duplication, and identify opportunities for cost savings. -Conduct additional analyses and support implementation of updated Better Buying Power (BBP) initiatives. -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. -Continue "reliability by design" analyses and support to programs. -Develop DoD courses of action and views on homeland defense implementation and compliance issues in multiple bilateral and multilateral fora. -Provide analytical support to the Homeland Defense Coordinator function within OUSD(AT&L). -Update roadmaps and where appropriate generate new roadmaps to guide investments in critical areas (e.g., future vertical lift, weapons and Integrated Air and Missile Defense (IAMD)). -Continue analytical support for the IAMD portfolio. -Provide analysis and support to the Homeland Defense Coordinator and DoD-DHS Capability Development Working Group (CDWG) Executive Secretary functions within OUSD(AT&L). 			
Accomplishments/Planned Programs Subtotals	2.986	2.979	4.499

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

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• P875: <i>Portfolio Systems Acquisition (PSA)</i>	2.986	2.979	4.619	0.000	4.619	5.121	5.458	5.563	5.672	Continuing	Continuing

Remarks

D. Acquisition Strategy

Not Applicable

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E. Performance Metrics

Not Applicable

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Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0604875D8Z / Joint Systems Architecture Development	Project (Number/Name) P220 / Electronic Warfare Executive Committee
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P220: <i>Electronic Warfare Executive Committee</i>	-	0.000	0.097	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Electronic Warfare (EW) Executive Committee(EXCOM)- co-chaired by the Under Secretary of Defense for Acquisition, Technology and Logistics and the Vice Chairman of the Joint Chiefs of Staff - is tasked to provide senior oversight, coordination, budget/capability harmonization, and advice on EW matters to the Secretary of Defense, Deputy Secretary of Defense, and the Deputy's Management Action Group. Primary focus areas include EW strategy, acquisition, operational support, and security objectives.

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

	FY 2015	FY 2016	FY 2017
Title: Electronic Warfare Executive Committee	-	0.097	-
Description: Funds are to conduct analytic assessments, threat-projective red-teaming, and physics-based modeling of electronic warfare capabilities to support the Deputy Secretary of Defense-directed Electronic Warfare (EW) Executive Committee (EXCOM).			
FY 2016 Plans: - Build analytic underpinning for strategy formulation, acquisition plans, operational support and security.			
Accomplishments/Planned Programs Subtotals	-	0.097	-

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

N/A

Remarks

D. Acquisition Strategy

Not Applicable

E. Performance Metrics

Not Applicable

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