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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 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605022D8Z I <i>Defense Exportability Program</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	7.210	3.150	3.267	2.920	-	2.920	3.445	3.245	3.131	3.192	Continuing	Continuing
P013: <i>Defense Exportability Features (DEF) Program</i>	7.210	3.150	3.267	2.920	-	2.920	3.445	3.245	3.131	3.192	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Exportability Features (DEF) Pilot Program is a result of a USD(AT&L) sponsored legislative proposal for authorities to better prepare warfighting systems for non-US use. This program funds activities to support identification of major defense acquisition programs for possible export, and the planning for design and incorporation of exportability features during research and development of these programs. Features include, but are not limited to, technology and engineering design activity such as capability differentials, anti-tamper, system assurance, and software assurance. Activities include the development of program protection strategies for the program; the design and incorporation of exportability features into the system; implementation of exportability requirements onto contracts; and research, development, test, and evaluation activities.

Defense exportability features play a critically important role in United States Government/DoD efforts to build partnership capacity. Funds support building joint and coalition environments by enabling the export of DoD systems to a wide range of partner nations, resulting in improved security and interoperability. In addition to the operational benefits, by providing these resources up front, then collecting 'fair share' non-recurring cost recoupment, the United States and partner nations will save significant resources by more efficiently designing and producing exportable U.S. systems.

Funding was decreased in FY 2017 to account for availability of prior year execution balances and as part of internal realignment of funds to other programs to achieve efficiencies. A number of designated systems participating in the DEF Pilot Program in FY17 will continue defining and implementing DEF 'best practices' related to designing and developing technology protection in the areas of program management, system engineering, and technology protection measures in the DoD acquisition process. Failure to consider export variant designs early in the acquisition process results in increased costs, delayed delivery, and higher risk of sensitive technology compromise due to ad-hoc sales later in production. Early development of export variants, including systems design approaches to integrate adequate domestic and exportable anti-tamper (AT) protection and differential capability (DC) requirements to lower production costs, makes it possible to improve quality and timely deliveries to allies and friends, and may enhance US industry share of the global marketplace.

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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	3.238	3.273	3.360	-	3.360
Current President's Budget	3.150	3.267	2.920	-	2.920
Total Adjustments	-0.088	-0.006	-0.440	-	-0.440
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	-0.006			
• SBIR/STTR Transfer	-0.087	-			
• Fiscal Guidance	-	-	-0.392	-	-0.392
• Efficiency Redux	-	-	-0.048	-	-0.048

Change Summary Explanation

The FY 2017 funding request was reduced by \$0.392M to account for the availability of prior year execution balances. The program was reduced an additional \$0.048M as part of an internal realignment of funds to other programs to achieve efficiencies.

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Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605022D8Z / Defense Exportability Program				Project (Number/Name) P013 / Defense Exportability Features (DEF) Program			
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
P013: Defense Exportability Features (DEF) Program	7.210	3.150	3.267	2.920	-	2.920	3.445	3.245	3.131	3.192	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Exportability Features (DEF) Pilot Program was a result of a USD(AT&L) sponsored legislative proposal that was authorized in the FY 2011 NDAA for authorities to better prepare warfighting systems for non-US use. This program funds activities to support identification of major defense acquisition programs for possible export, and the planning for design and incorporation of exportability features during research and development of these programs. Features include, but are not limited to, technology and engineering design activity such as capability differentials, anti-tamper, system assurance, and software assurance. Activities include the development of technology protection strategies for the program; the design and incorporation of exportability features into the system; implementation of exportability requirements onto contracts; and research, development, test, and evaluation activities.

Defense exportability features play a critically important role in United States Government/DoD efforts to build partnership capacity. Funds support building joint and coalition environments by enabling the export of DoD systems to a wide range of partner nations, resulting in improved security and interoperability. In addition to the operational benefits, by providing these resources up front, then collecting 'fair share' non-recurring cost recoupment, the United States and partner nations may save significant resources by more efficiently designing and producing exportable U.S. systems. Incorporation of defense exportability features in initial designs also has the potential to help control costs throughout the product life cycle.

Funding in FY 2017 supports systems selected to participate in the Defense Exportability Features Pilot Program that are defining and implementing DEF 'best practice' program management, system engineering, and technology protection measures in the DoD acquisition process. Failure to consider export variant designs early in the acquisition process results in increased costs, delayed delivery, and higher risk of sensitive technology compromise due to ad-hoc sales late in production. Early development of export variants, including systems design approaches to integrate adequate domestic and exportable anti-tamper (AT) protection and differential capability (DC) requirements to lower production costs, increases quality and timely deliveries to allies and friends, and enhances US industry share of the global marketplace.

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

	FY 2015	FY 2016	FY 2017
Title: Defense Exportability Features (DEF) Program	3.150	3.267	2.920
FY 2015 Accomplishments: - Funding was decreased in FY 2015 as Military Departments concentrated on follow-on DEF studies of select DEF programs, from feasibility studies to design analysis.			
Initiated or continued contracts for DEF feasibility studies on the following previously selected systems:			

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Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605022D8Z / <i>Defense Exportability Program</i>	Project (Number/Name) P013 / <i>Defense Exportability Features (DEF) Program</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
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<ul style="list-style-type: none"> - Integrated Air and Missile Defense (US Army) - P-8A Poseidon Multi-Mission Maritime Aircraft (US Navy) - Small Diameter Bomb II (US Air Force) - MQ-4C Triton formerly Broad Area Maritime Surveillance (US Navy) - Common Joint Proximity Height of Burst Fusing (US Army) - Reviewed major defense acquisition programs for exportability as part of the major milestone review process. - Identified new pilot candidates from Service Acquisition Executive nominations. - Identified Service leads and subject matter experts, to provide support to programs prior to Milestone B, to develop plans for exportability features. - Managed and tracked the completion of the contractor exportability feasibility studies and design activities. - Completed and published a USD(AT&L) signed OSD DEF Pilot Program Policy Implementation Memorandum and Guidelines. - Oversaw drafting of DEF Lessons Learned from MQ-9, JASSM, and P-8A programs, and Interim Progress Review briefings from P-8A, SDB II, HOBf, and MQ-4C, and Final Reports from IAMD, P-8A, and MQ-4C studies completed in FY15. - Drafted and submitted the annual report to Congress on the DEF Pilot Program. <p>The focus for FY 2015 for the DEF pilot program was to execute feasibility studies from selected DEF Pilot Programs that have yet to receive DEF funding, and to conduct follow-on DEF design studies on designated DEF pilot programs. As with the FY 2014 programs, FY 2015 feasibility studies further defined the required actions for incorporating DEF into programs, beginning DEF designs on select designated programs, and assessing the potential costs of those actions. OUSD (AT&L) continued to engage with program offices through the Military Department DEF POCs, and served as a liaison among the program offices, the Military Departments, and other Technology Security and Foreign Disclosure offices to facilitate the feasibility studies. For pre-MS A and B systems, OUSD(AT&L)/IC ensured the DEF feasibility studies were addressed in their program Acquisition Strategies and Program Protection Plans (PPP). For Post-MS B platforms, when there was already a contract in place, OUSD (AT&L) worked with the program managers and contracting officers to implement the necessary contractual modifications to ensure that the feasibility studies were executed.</p> <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> - Funding was slightly increased in FY 2016 to expand the number of systems included in the Defense Exportability Features Pilot Program that are used to define and implement DEF 'best practice' program management, system engineering, and technology protection measures in the DoD acquisition process, and to cover more expensive follow-on DEF export design activities. 			
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Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605022D8Z / <i>Defense Exportability Program</i>	Project (Number/Name) P013 / <i>Defense Exportability Features (DEF) Program</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>In FY16, the DEF Pilot Program is initiating or continuing contracts for DEF feasibility studies or DEF design activities on the following previously selected systems (plus any new DEF Pilot Program designated systems selected by OSD for FY 2016 - 2017):</p> <ul style="list-style-type: none"> - Small Diameter Bomb II (US Air Force) - Three-Dimensional Expeditionary Long-Range Radar (US Air Force) - Common Joint Proximity Height of Burst Fusing (US Army) - Joint Air to Ground Missile (US Army) - Indirect Fires Protection Capability (US Army) - Integrated Air and Missile Defense (US Army) - Miniature Air Launched Decoy (US Air Force) <p>- Review of major defense acquisition programs for exportability as part of the major milestone review process.</p> <p>- Identify and select new pilot program candidates from Service Acquisition Executive nominations.</p> <p>- Identify Service leads and subject matter experts, to provide support to programs, prior to Milestone B, to develop plans for exportability features.</p> <p>- Manage, fund, and track the completion of the contractor exportability feasibility studies and design activities.</p> <p>- Oversee drafting of DEF Lessons Learned and Interim Progress Reviews and Final Reports from DEF studies conducted in FY 2016.</p> <p>- Draft and submit the annual report to Congress on the program.</p> <p>The focus for FY 2016 for the DEF pilot program will be to execute initial or follow-on feasibility studies for selected DEF Pilot Programs, and to conduct initial or follow-on DEF design studies on designated DEF pilot programs. As with the FY 2015 programs, FY 2016 feasibility studies will define the required actions for incorporating DEF into programs, begin DEF designs on select designated programs, and assess the potential costs of those actions. OUSD (AT&L) will continue to engage with program offices through the Military Department DEF POCs, and serve as a liaison among the program offices, the Military Departments, and other defense agencies to facilitate the feasibility studies. For pre-MS A and B systems, OUSD(AT&L)/IC will ensure the DEF feasibility studies are addressed in their program Acquisition Strategies and Program Protection Plans (PPP). For Post-MS B platforms, when there is already a contract in place, OUSD (AT&L) will work with the program managers and contracting officers to implement the necessary contractual modifications to ensure that the feasibility studies were executed.</p> <p>FY 2017 Plans:</p> <ul style="list-style-type: none"> - Funding will decrease in FY 2017 to account for the availability of prior year execution balances and to fund other programs as part of an internal OSD realignment of funds to achieve efficiencies. Funding will be sufficient to support the number of systems included in the Defense Exportability Features Pilot Program that are used to define and implement DEF 'best practice' 			

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Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605022D8Z / <i>Defense Exportability Program</i>	Project (Number/Name) P013 / <i>Defense Exportability Features (DEF) Program</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>program management, system engineering, and program protection measures in the DoD acquisition process, and to cover more expensive follow-on DEF export design activities.</p> <p>In FY 2017, the pilot program is anticipating initiating or continuing contracts for DEF feasibility studies or DEF design activities on the following previously selected systems (plus any new DEF Pilot Program designated systems selected by OSD for FY 2017 - 2018):</p> <ul style="list-style-type: none"> - Small Diameter Bomb II (US Air Force) - MQ-4C Triton formerly Broad Area Maritime Surveillance (US Navy) - Three-Dimensional Expeditionary Long-Range Radar (US Air Force) - Common Infrared Countermeasures (US Army) - Joint Air to Ground Missile (US Army) - Armored Multipurpose Vehicle (US Army) - Air and Missile Defense Radar (US Navy) - Indirect Fires Protection Capability (US Army) - Integrated Air and Missile Defense (US Army) <p>(plus any new programs selected in FY16-17 that commence DEF studies or design activities)</p> <ul style="list-style-type: none"> - Review of major defense acquisition programs for exportability as part of the major milestone review process. - Identify and select new pilot program candidates from Service Acquisition Executive nominations. - Identify Service leads and subject matter experts, to provide support to programs, prior to Milestone B, to develop plans for exportability features. - Manage, resource, and track the completion of the contractor exportability feasibility studies and design activities. - Oversee drafting of DEF Lessons Learned, Interim Progress Review briefings, and Final Reports from DEF studies conducted in FY 2017. - Draft and submit the annual report to Congress on the program. <p>The focus for FY 2017 for the DEF pilot program will be to execute feasibility studies from newly selected DEF Pilot Programs that have yet to receive DEF funding, and to conduct follow-on DEF design studies on designated DEF pilot programs. As with the FY 2016 programs, FY 2017 feasibility studies will define the required actions for incorporating DEF into programs, begin DEF designs on select designated programs, and assess the potential costs of those actions. OUSD (AT&L) will continue to engage with program offices through the Military Department DEF POCs, and serve as a liaison among the program offices, the Military Departments, and other defense agencies to facilitate the feasibility studies. For pre-MS A and B systems, OUSD(AT&L)/IC will ensure the DEF feasibility studies are addressed in their program Acquisition Strategies and Program Protection Plans (PPP).</p>			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
For Post-MS B platforms, when there is already a contract in place, OUSD (AT&L) will work with the program managers and contracting officers to implement the necessary contractual modifications to ensure that the feasibility studies were executed.			
Accomplishments/Planned Programs Subtotals	3.150	3.267	2.920

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

TBD

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

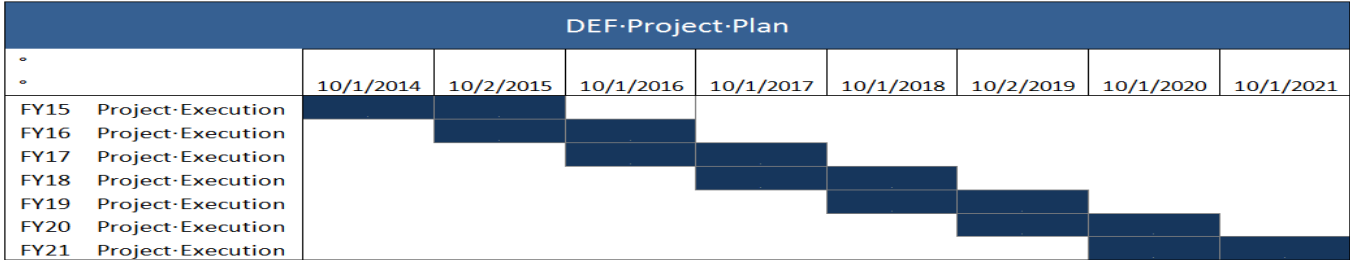
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Height of Burst Fuzing Defense Exportability Features (DEF) Program	MIPR	Picatinny Arsenal : NJ	2.148	1.510		0.617		0.000		-		0.000	Continuing	Continuing	-
Three Dimensional Extended Long Range Radar (3DELRR) DEF Program	C/CS	TBD - Competitive EMD Contract Award : TBD	1.560	0.000		0.900		0.500		-		0.500	Continuing	Continuing	-
Small Diameter Bomb II (SDB II) DEF Program	SS/CS	Raytheon Missile Systems : Tuscon, AZ	0.660	0.501		0.000		0.500		-		0.500	Continuing	Continuing	-
P-8A DEF Program	SS/CS	Boeing Company : Seattle, WA	0.231	0.000		0.000		0.000		-		0.000	0.000	0.231	-
Army Integrated Air and Missile Defense (AIAMD) DEF Program	SS/CS	Northrop Grumman : Huntsville, AL	0.650	0.814		0.000		0.445		-		0.445	Continuing	Continuing	-
Common Infrared Countermeasures (CIRCM) DEF Program	C/CS	TBD - Competitive EMD Contract Award : TBD	0.280	0.000		0.000		0.000		-		0.000	Continuing	Continuing	-
MQ-4C Triton (formerly BAMS) DEF Program	SS/CS	Northrop Grumman : San Diego, CA	0.800	0.000		0.000		0.400		-		0.400	Continuing	Continuing	-
Indirect Fires Protection Capability (IFPC) DEF Program	MIPR	Redstone Arsenal : Huntsville, AL	0.000	0.000		0.250		0.400		-		0.400	Continuing	Continuing	-
Joint Air-to-Ground Missile (JAGM) DEF Program	SS/CS	Lockheed Martin : Huntsville, AL	0.000	0.000		0.500		0.400		-		0.400	Continuing	Continuing	-
Miniature Air Launched Decoy (MALD) DEF Program	C/CS	TBD - Competitive Award : TBD	0.000	0.000		0.675		0.000		-		0.000	Continuing	Continuing	-
Subtotal			6.329	2.825		2.942		2.645		-		2.645	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY15 DEF Studies	1	2015	4	2016
FY16 DEF Studies	1	2016	4	2017
FY17 DEF Studies	1	2017	4	2018
FY18 DEF Studies	1	2018	4	2019
FY19 DEF Studies	1	2019	4	2020
FY20 DEF Studies	1	2020	4	2021
FY21 DEF Studies	1	2021	4	2021

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