

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense **Date:** February 2015

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)					PE 0605022D8Z / Defense Exportability Program							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	3.570	3.640	3.238	3.273	-	3.273	3.360	3.236	3.113	3.155	Continuing	Continuing
P013: Defense Exportability Features (DEF) Program	3.570	3.640	3.238	3.273	-	3.273	3.360	3.236	3.113	3.155	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Exportability Features (DEF) 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 is increased in FY 2016 to support an expansion of the number of designated systems included in the Defense Exportability Pilot Program and the greater costs of designing in technology protection. A number of designated systems participating in the DEF Pilot Program in FY16 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 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, increase quality and timely deliveries to allies and friends, and enhance US industry share of the global marketplace.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense	Date: February 2015
-----------------------------------------------------------------------------------------------------	----------------------------

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605022D8Z / <i>Defense Exportability Program</i>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	3.750	3.244	3.295	-	3.295
Current President's Budget	3.640	3.238	3.273	-	3.273
Total Adjustments	-0.110	-0.006	-0.022	-	-0.022
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-0.006			
• SBIR/STTR Transfer	-0.110	-			
• Baseline Program Adjustment	-	-	-0.022	-	-0.022

Change Summary Explanation

Program was minimally reduced for higher priorities within the department.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense										Date: February 2015		
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P013: Defense Exportability Features (DEF) Program	3.570	3.640	3.238	3.273	-	3.273	3.360	3.236	3.113	3.155	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Exportability Features (DEF) 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. Incorporation of defense exportability features in initial designs can help control costs throughout the product life cycle.

Funding in FY 2016 to support systems included in the Defense Exportability Pilot Program that are used to define and implement DEF 'best practice' program management, system engineering, and program 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, increase quality and timely deliveries to allies and friends, and enhance US industry share of the global marketplace.

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

	FY 2014	FY 2015	FY 2016
Title: Defense Exportability Features (DEF) Program	3.640	3.238	3.273
FY 2014 Accomplishments: - Funding was increased in FY 2014 to expand the number of systems included in the Defense Exportability Pilot Program that are used to define and implement DEF 'best practice' program management, system engineering, and program protection measures in the DoD acquisition process.			
Initiated or continued contracts for DEF feasibility studies or design analysis on the following seven systems:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015	
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 2014	FY 2015
<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) - Three-Dimensional Expeditionary Long-Range Radar (US Air Force) - Common Joint Proximity Height of Burst Fusing (US Army) - Common Infrared Countermeasures (US Army) <p>- Reviewed of major defense acquisition programs for exportability as part of the major milestone review process.</p> <p>- Identified new pilot candidates from military department nominations.</p> <p>- Identified Service leads and subject matter experts, to provide support to programs, prior to Milestone B, to develop plans for exportability features.</p> <p>- Implemented DOD procedures for the recoupment of the DEF investment in program protection through future foreign military sales.</p> <p>- Managed and tracked the completion of the contractor feasibility studies for exportability.</p> <p>- Reviewed contractor feasibility study Interim Progress Reviews and Final Reports for thoroughness, lessons learned, and best practices.</p> <p>- Drafted a legislative amendment adjusting the government/contractor cost-sharing ratio from 50%-50 to an "appropriate share."</p> <p>- Began drafting a DEF Policy Implementation Memorandum.</p> <p>- For both 3DELRR and CIRCM, requirements or options to fund DEF designs were included in their Requests for Proposals (RFPs), either as CLINs or CLIN Options.</p> <p>- Drafted and submitted the annual report to Congress on the program.</p> <p>FY 2015 Plans:</p> <p>- Funding is decreased in FY 2015 as Military Departments concentrated on follow-on DEF studies of select DEF programs, from feasibility studies to design analysis.</p> <p>Initiate or continue contracts for DEF feasibility studies on the following eleven systems (plus any DEF Pilot Programs selected by OSD for FY 2015):</p> <ul style="list-style-type: none"> - Air and Missile Defense Radar (US Navy) - Indirect Fires Protection Capability (US Army) - Integrated Air and Missile Defense (US Army) - P-8A Poseidon Multi-Mission Maritime Aircraft (US Navy) - Joint Air-to-Surface Standoff Missile (US Air Force) 			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015	
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 2014	FY 2015
<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 Joint Proximity Height of Burst Fusing (US Army) - Common Infrared Countermeasures (US Army) - Joint Air to Ground Missile (US Army) <p>- Review of major defense acquisition programs for exportability as part of the major milestone review process.</p> <p>- Identify new pilot candidates from Military Department 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 and track the completion of the contractor feasibility studies for exportability.</p> <p>- Complete and publish OSD DEF Policy Implementation Memorandum and Guidelines.</p> <p>- Oversee drafting of DEF Lessons Learned from MQ-9 and JASSM, and Interim Progress Reviews and Final Reports from IAMD, P-8A, SDB II, 3DELRR, MQ-4C, and HOBf.</p> <p>- Draft and submit the annual report to Congress on the program.</p> <p>The focus for FY 2015 for the DEF pilot program will be 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 will define the required actions for identifying the feasibility of DEF for programs and beginning DEF designs on select designated programs, and to assess the potential costs of those actions. OUSD (AT&L) will continue to engage with program offices through the Military Departments, and to serve 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, the DEF feasibility studies will be addressed in the Acquisition Strategy and the Program Protection Plan (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 are executed.</p> <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> - Funding will be increased in FY 2016 to expand the number of systems included in the Defense Exportability Pilot Program that are used to define and implement DEF 'best practice' program management, system engineering, and program protection measures in the DoD acquisition process, and to cover more expensive follow-on DEF incorporation into export designs. <p>Initiate or continue contracts for DEF feasibility studies on the following eleven systems (plus any DEF Pilot Programs selected by OSD for FY 2015 - 2016):</p>			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015	
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 2014	FY 2015
<ul style="list-style-type: none"> - Air and Missile Defense Radar (US Navy) - Indirect Fires Protection Capability (US Army) - Integrated Air and Missile Defense (US Army) - P-8A Poseidon Multi-Mission Maritime Aircraft (US Navy) - Joint Air-to-Surface Standoff Missile (US Air Force) - 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 Joint Proximity Height of Burst Fusing (US Army) - Common Infrared Countermeasures (US Army) - Joint Air to Ground Missile (US Army) <ul style="list-style-type: none"> - Review of major defense acquisition programs for exportability as part of the major milestone review process. - Identify new pilot candidates from Military Department nominations. - Identify Service leads and subject matter experts, to provide support to programs, prior to Milestone B, to develop plans for exportability features. - Manage and track the completion of the contractor feasibility studies for exportability. - Oversee drafting of DEF Lessons Learned from MQ-9, and Interim Progress Reviews and Final Reports from DEF studies conducted in FY 2015. - Draft and submit the annual report to Congress on the program. 			
Accomplishments/Planned Programs Subtotals		3.640	3.238
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics TBD			

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense												Date: February 2015			
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					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Height of Burst Fuzing Defense Exportability Features (DEF) Program	MIPR	Picatinny Arsenal : NJ	0.906	1.242		0.914		1.202		-		1.202	Continuing	Continuing	-
Three Dimensional Extended Long Range Radar (3DELRR) DEF Program	C/CS	TBD - Competitive EMD Contract Award : TBD	0.450	1.110		0.803		-		-		-	Continuing	Continuing	-
Small Diameter Bomb II (SDB II) DEF Program	SS/CS	Raytheon Missile Systems : Tuscon, AZ	0.000	0.660		0.654		1.000		-		1.000	Continuing	Continuing	-
P-8A DEF Program	SS/CS	Boeing Company : Seattle, WA	0.000	0.231		-		-		-		-	-	0.231	-
Army Integrated Air and Missile Defense (AIAMD) DEF Program	SS/CS	Northrop Grumman : Huntsville, AL	0.650	-		0.567		-		-		-	Continuing	Continuing	-
Common Infrared Countermeasures (CIRCM) DEF Program	C/CS	TBD - Competitive EMD Contract Award : TBD	0.280	-		-		0.371		-		0.371	Continuing	Continuing	-
MQ-4C Triton (formerly BAMS) DEF Program	SS/CS	Northrop Grumman : Bethpage, NY	0.800	-		-		0.400		-		0.400	Continuing	Continuing	-
Subtotal			3.086	3.243		2.938		2.973		-		2.973	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DEF Contract Support	C/FFP	LMI : McLean, VA	0.334	0.250		0.250		0.250		-		0.250	-	1.084	-
DEF Contract Support - AAAS	MIPR	Oak Ridge Institute : AL	0.050	0.097		-		-		-		-	-	0.147	-
Subtotal			0.384	0.347		0.250		0.250		-		0.250	-	1.231	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense												Date: February 2015			
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>					

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Height of Burst Fuzing DEF Mgmt Support	MIPR	Picatinny Arsenal : NJ	0.100	0.050		0.050		0.050		-		0.050	-	0.250	-
Subtotal			0.100	0.050		0.050		0.050		-		0.050	-	0.250	-

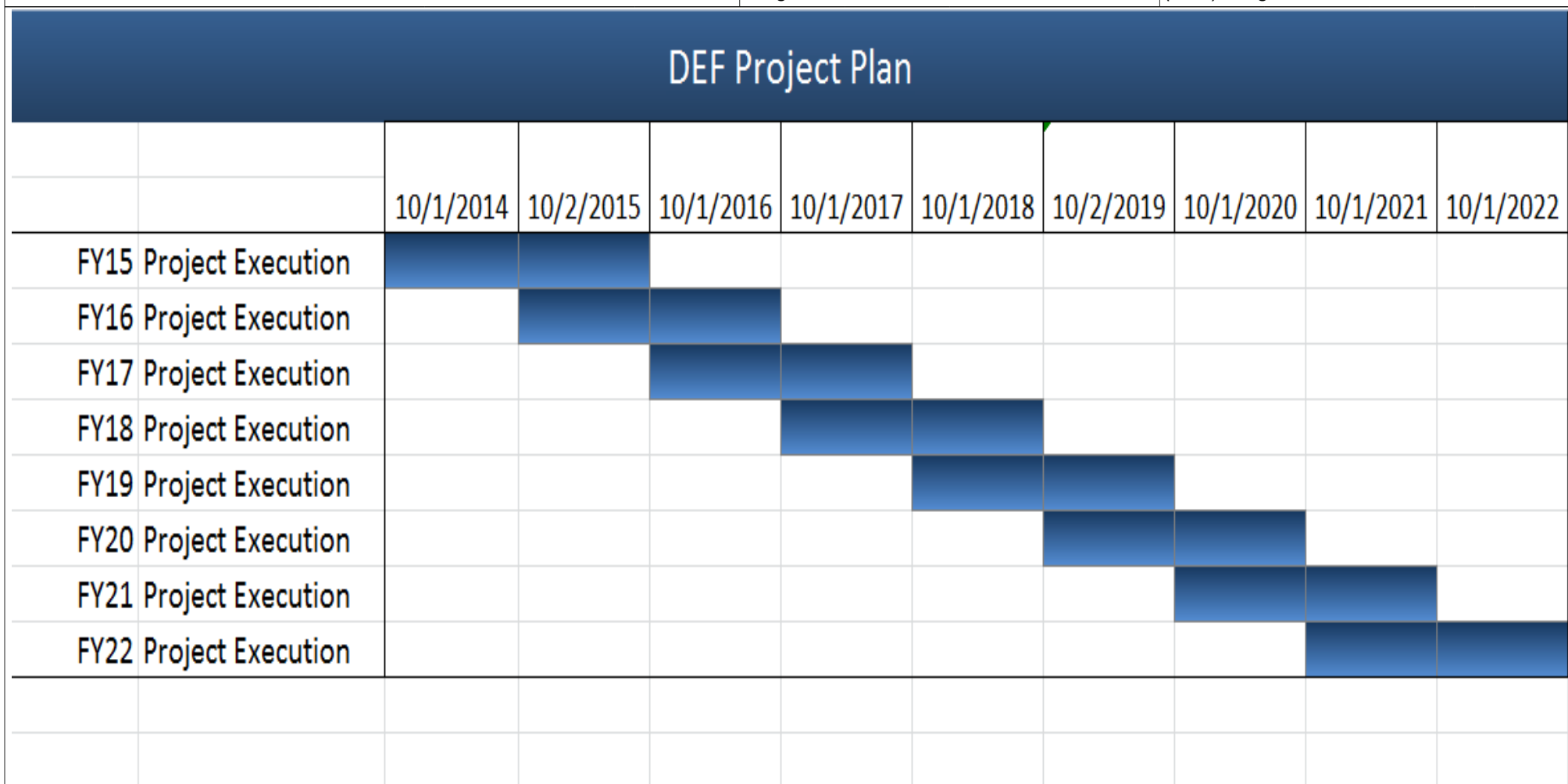
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.570	3.640		3.238		3.273		-		3.273	-	-	-

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of Defense	Date: February 2015
--------------------------------------------------------------------------------------------	----------------------------

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
--------------------------------------------------	-------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------



UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of Defense			Date: February 2015
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>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY14 DEF Studies	1	2014	1	2016
FY15 DEF Studies	1	2015	1	2017
FY16 DEF Studies	1	2016	1	2018
FY17 DEF Studies	1	2017	1	2019
FY18 DEF Studies	1	2018	1	2020
FY19 DEF Studies	1	2019	4	2020