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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy **Date:** February 2015

Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603790N / NATO Research and Deve							
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	48.106	7.502	9.659	9.359	-	9.359	10.972	10.565	10.229	10.578	Continuing	Continuing
2293: NATO Cooperative R & D	48.106	7.502	9.659	9.359	-	9.359	10.972	10.565	10.229	10.578	Continuing	Continuing

A. Mission Description and Budget Item Justification

In accordance with Title 10 United States Code, Section 2350a, this Program Element (PE) provides funding for research and development (R&D) programs with approved allies under international agreements. These funds can only be applied to work efforts in the U.S., and the Under Secretary of Defense, Acquisition and Technology and Logistics (USD, AT&L) must approve each international agreement. The program provides funds for multiple projects under separately approved international agreements as well as funds that support the establishment of such agreements. Each international agreement is summarized in a separate Summary Statement of Intent (SSOI) that also states why the project serves to increase the defense capabilities of the U.S. The SSOI is used to obtain Project approval by the Department of the Navy and the Office of the Secretary of Defense.

The North Atlantic Treaty Organization (NATO) R&D cooperative programs differ from other Research, Development, Test and Evaluation (RDT&E) programs because issuance of funding from this PE coincides with the signature of international agreements. These signatures occur throughout the fiscal year and often encounter unexpected delays during the staffing and negotiation phases of agreement processing prior to signature.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	7.502	9.659	10.900	-	10.900
Current President's Budget	7.502	9.659	9.359	-	9.359
Total Adjustments	-	-	-1.541	-	-1.541
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-0.017	-	-0.017
• Rate/Misc Adjustments	-	-	-1.524	-	-1.524

Change Summary Explanation

The FY 2016 funding request was reduced by \$1.4 million to account for the availability of prior year execution balances.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603790N / NATO Research and Deve				Project (Number/Name) 2293 / NATO Cooperative R & D			
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
2293: NATO Cooperative R & D	48.106	7.502	9.659	9.359	-	9.359	10.972	10.565	10.229	10.578	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In accordance with Title 10 U.S. Code Section 2350a, this project provides funding for research and development projects with approved allies under international agreements. These funds can only be applied to work efforts in the U.S., and the Office of Secretary of Defense must approve each international agreement. The program provides funds for multiple projects under separately approved international agreements as well as funds that support the establishment of such agreements. Each international agreement is summarized in a separate SSOI which also states why the project serves to increase the conventional defense capabilities of the U.S. The SSOI is used to obtain project approval by the Department of the Navy and the Office of the Secretary of Defense.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: NATO Cooperative R & D	7.502	9.659	9.359	-	9.359
Articles:	-	-	-	-	-
FY 2014 Accomplishments: -Supported FY14 approved Cooperative Projects. -Advanced Electrical Magnetic (EM) Silencing U.S. and United Kingdom (UK) -Advance Electric Power and Propulsion U.S. and United Kingdom (UK) -Advance Material Propeller U.S. and Australia -High-Speed Multi-Hull Vessel Optimization (HSMVO) U.S. and Japan -Large Displacement Unmanned Undersea Vehicles (LD UUV)U.S. and Korea -Mine Counter-Measures Vessel (MCMV) U.S. and Finland -Modeling and Simulation U.S. -Pro-Simon U.S. and Netherlands (NL) -Sub Sonar Telemetry U.S. and United Kingdom (UK) -Sub Very Low Frequency U.S. and United Kingdom (UK) -Submarine Hydrodynamics U.S. and Australia -Test, Planning, and Execution (TPEX)U.S. and Multilateral (ML) -Waterside Rapid Deployment U.S., Australia, and Canada (CA) -Completed the following FY14 Cooperative Projects -Advanced Electrical Magnetic (EM) Silencing U.S. and United Kingdom (UK) -Modeling and Simulation U.S.					

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Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603790N / NATO Research and Deve		Project (Number/Name) 2293 / NATO Cooperative R & D		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-Sub Very Low Frequency U.S. and United Kingdom (UK) -Test, Planning, and Execution (TPEX)U.S. and Multilateral (ML) - FY 2015 Plans: -Continue to support FY2014 approved Cooperative projects. Plan and support approved FY2015 Cooperative projects. -Advance Electric Power and Propulsion U.S. and United Kingdom (UK) -Advance Material Propeller U.S. and Australia -Australia/U.S. Expeditionary Modeling & Simulation Project Arrangement (AUSEMS) U.S. and Australia -Biomass to Fuel U.S. and Chile -Dynamic System Mechanics Advanced Simulation-Shallow Confined Waters (DYSMAS-SCW) U.S.and Germany -High-Speed Multi-Hull Vessel Optimization (HSMVO) U.S.and Japan -Hull Treatment U.S. and United Kingdom (UK) -Large Displacement Unmanned Undersea Vehicles (LD UUV)U.S.and Korea -Mine Counter-Measures Vessel (MCMV) U.S. and Finland -Optical Laser Capability (OLC)U.S.and United Kingdom (UK) -Pro-Simon U.S. and Netherlands (NL) -Sub Sonar Telemetry U.S.and United Kingdom (UK) -Submarine Hydrodynamics U.S.and Australia -Super Quantum Small Electromagnetic Sensor(QSES)U.S.and Australia -Ultra HeavyLift Amphibious Connector(UHAC) U.S.and Singapore -Waterside Rapid Deployment U.S.,Australia,and Canada (CA) FY 2016 Base Plans: -Continue to support approved Cooperative projects from FY2014/FY2015. Plan and support approved FY2016 Cooperative projects. -Advance Material Propeller U.S. and Australia -Australia/U.S. Expeditionary Modeling & Simulation Project Arrangement (AUSEMS) U.S. and Australia -Biomass to Fuel U.S. and Chile -Dynamic System Mechanics Advanced Simulation-Shallow Confined Waters (DYSMAS-SCW) U.S. and Germany -Hull Treatments U.S.and United Kingdom (UK) -Large Displacement Unmanned Undersea Vehicles (LD UUV)U.S.and Korea						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015	
Appropriation/Budget Activity 1319 / 4		R-1 Program Element (Number/Name) PE 0603790N / NATO Research and Deve		Project (Number/Name) 2293 / NATO Cooperative R & D	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
-Optical Laser Capability (OLC)U.S. and United Kingdom (UK) -Submarine Hydrodynamics U.S. and Australia -Super Quantum Small Electromagnetic Sensor(QSES)U.S. and Australia -Ultra HeavyLift Amphibious Connector(UHAC) U.S. and Singapore FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	7.502	9.659	9.359	-	9.359
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy N/A					
E. Performance Metrics The intent of the North Atlantic Treaty Organization (NATO) cooperative R&D program is to provide "start-up" funds for projects seeking allied contributions into cooperative research and development projects with the U.S. The primary metric used in the program is foreign contributions into projects supported by the program. The performance goal is met if total foreign contributions into projects exceed total NATO cooperative R&D program funds by over 100%. This program historically does not meet established execution benchmarks. The North Atlantic Treaty Organization (NATO) R&D cooperative programs differ from other Research, Development, Test and Evaluation (RDT&E) programs because issuance of funding from this PE coincides with the signature of international agreements. These signatures occur throughout the fiscal year and often encounter unexpected delays during the staffing and negotiation phases of agreement processing prior to signature.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603790N / NATO Research and Deve				Project (Number/Name) 2293 / NATO Cooperative R & D					
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
Developmental Test and Evaluation	C/FP	NAVSEA : Washington Navy Yard, DC	14.107	3.982	May 2014	5.124	Nov 2014	3.432	Nov 2015	-		3.432	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	NSWC : West Bethesda, MD	11.621	2.000	Sep 2014	-		-		-		-	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	NUWC : Newport, RI	1.752	0.500	Jan 2014	0.100	Feb 2015	-		-		-	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	SPAWAR : San Diego, CA	3.853	0.500	Sep 2014	-		0.500	Jan 2016	-		0.500	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	NAVAIR : Patuxent River, MD	1.750	0.386	Apr 2014	-		-		-		-	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	NRL : Washington, DC	2.350	0.134	Sep 2014	-		-		-		-	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	NAWC : Point Mugu, CA	5.500	-		-		0.600	Mar 2016	-		0.600	Continuing	Continuing	Continuing
Developmental Test and Evaluation	C/FP	Miscellaneous : Philadelphia, PA	7.124	-		-		2.927	Apr 2016	-		2.927	Continuing	Continuing	Continuing
Deveiopmental Test and Evaluation	C/FP	MARCOR : Washington.DC	0.000	-		0.900	Jan 2015	0.300	Dec 2015	-		0.300	-	1.200	-
Developmental Test and Evaluation	C/FP	NSWCCD : Carderock, MD	0.000	-		2.035	Jan 2015	-		-		-	-	2.035	-
Developmental Test and Evaluation	C/FP	ONR : Washington DC	0.000	-		1.500	May 2015	1.600	Jan 2016	-		1.600	-	3.100	-
Subtotal			48.057	7.502		9.659		9.359		-		9.359	-	-	-
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
ACQ Workforce Fund	Various	Various : Various	0.049	-		-		-		-		-	-	0.049	-
Subtotal			0.049	-		-		-		-		-	-	0.049	-

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	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	48.106	7.502		9.659		9.359		-		9.359	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0603790N / NATO Research and Deve

Project (Number/Name)
2293 / NATO Cooperative R & D

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Proj 2293																												
International Agreements																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603790N / <i>NATO Research and Deve</i>	Project (Number/Name) 2293 / <i>NATO Cooperative R & D</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 2293</i>				
International Agreements	1	2014	4	2017