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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force	DATE: April 2013
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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603790F: <i>NATO Research and Development</i>
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COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	4.424	4.507	4.568	-	4.568	4.633	4.715	4.795	4.881	Continuing	Continuing
64NATO: <i>Nato Coop R&D</i>	-	4.424	4.507	4.568	-	4.568	4.633	4.715	4.795	4.881	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

These funds will be used to initiate air, space, and cyber international cooperative research, and development (ICR&D) agreements with North Atlantic Treaty Organization (NATO) member states, major non-NATO allies and friendly foreign countries. Each of the selected programs and projects are required to have a concluded international agreements (IA), prior to funds being released, that implements the provisions of Title 10 U.S. Code, Section 2350a. The legislation (Title 10 U.S. Code, Section 2350) authorizes funds to significantly improve U.S. and allied conventional defense capabilities by leveraging the best defense technologies, eliminating costly duplication of R&D efforts, accelerating the availability of defense systems, and promoting US and allied interoperability or commonality. These funds will not be used for government civilian salaries, permanent construction, or spent overseas. This program element funds the implementation of Air Force ICR&D agreements in (1) Basic Research (2) Applied Research (3) Advanced Technology Development (4) Advanced Component Development and Prototypes (5) System Development and Demonstration and (6) RDT&E Management Support.

This PE is designated in Budget Activity 4 because most of the ICR&D projects support specific systems, include all efforts necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology, and help expedite technology transition from the laboratory to operational use.

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0603790F: NATO Research and Development			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	4.424	4.507	4.568	-	4.568
Current President's Budget	4.424	4.507	4.568	-	4.568
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	0.000			
• Congressional Directed Reductions	-	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	-	0.000			
• Congressional Directed Transfers	-	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.000	-	0.000
C. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2012	FY 2013	FY 2014		
Title: International Cooperative Research and Development	4.424	4.507	4.568		
Description: Supports bi- and multi-lateral international agreements that meet USAF RDT&E objectives and goals. Each of the cooperative projects that receive funding must meet one or more of the following requirements: enhance warfighter capabilities and coalition interoperability; accelerate the availability of defense systems; strengthen and reinforce strategic partnerships; gain access to the best defense technologies, capabilities and techniques; build relationships and influence with allies; and/or eliminate duplication of R&D efforts.					
FY 2012 Accomplishments: FY12 cooperative projects included but were not limited to: Monitoring and Controlling Multiple Assets within Complex Environments; Closed Loop Alternative Navigation Demonstrations; Joint and Coalition Training, Rehearsal, and Exercise Research; Life Prediction for Metallic Aircraft Structures; Aero Advisory and NOTAMS Tools; Cultural Radar for Human Terrain Effects; Computational Multi-Scale Modeling of Explosives; High Speed Penetrator Cases; and others					
FY 2013 Plans: FY13 cooperative projects include but are not limited to: Surveillance by Thermal Hypersectral Imaging Exploitation and Validation of Technology; Unmanned Aircraft Systems Heavy Fuels Operations; Background Oriented Schlieren Comparison; GPS/Inertial/Vision Integrated Navigation System; Fire and Explosion Vulnerability Assessment; Multi-Interoperability Experiment for Enhanced ISR Applications; Command and Control Information Synergy for Combined Space Operations; SiC/SiC-UHTC Compositions; and others					
FY 2014 Plans:					

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603790F: <i>NATO Research and Development</i>	
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
FY14 cooperative projects include but are not limited to: First Generation Quad-Stimulus Laser Eye Protection; Hot Spots Structural Health Monitoring; Coalition Live, Virtual and Constructive Training Research; Bio-Inspired Technologies for UAS; Air Vehicle Integrated Energy and Power Management Modeling and Simulation; Non-Invasive Rapid Detection of Stress Levels via Nano Devices; Solid Rocket Motor Critical Defect Analysis and Health Monitoring; Robust Affordable Network Global Navigation Satellite Systems Receiver for Military Applications; and others			
Accomplishments/Planned Programs Subtotals		4.424	4.507
D. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
E. Acquisition Strategy A principal goal of the NATO Cooperative R&D program is to effectively utilize the aggregate resources invested by the US and our allies in air, space, and cyber R&D. This program element provides the critical funding incentive needed to pursue air, space and cyber related ICRD&A agreements and helps to (a) leverage USAF and allied resources through cost sharing and economies of scale; (b) exploit the best US and allied technologies for equipping coalition forces; (c) demonstrate areas of commonality or interoperability with our allies; and (d) accelerate the availability of defense technology and systems. Candidate projects are reviewed against USAF goals, DoD objectives, and warfighter needs prior to being approved. An international agreement defining project objectives, responsibilities and costs is required prior to release of funds. To obtain these funds and ensure service commitment, projects are selected from existing or new RDT&E programs funded in the Future Years Defense Plan (FYDP). Project offices must show matching funds and contributions from associated program elements and equitable allied funding. As appropriate, funding responsibility for out-year requirements and follow-on efforts are transferred to the project office and associated program elements. Any new contracts are awarded after full and open competition.			
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)							R-1 ITEM NOMENCLATURE PE 0603790F: NATO Research and Development					PROJECT 64NATO: Nato Coop R&D			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
International Research Projects	Various	Various,;	-	3.998	Feb 2012	3.887	Feb 2013	3.568	Feb 2014	-		3.568	Continuing	Continuing	
Subtotal			0.000	3.998		3.887		3.568		0.000		3.568			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
International Research Projects	Various	Various,;	-	0.426	Feb 2012	0.620	Feb 2013	1.000	Feb 2014	-		1.000	Continuing	Continuing	
Subtotal			0.000	0.426		0.620		1.000		0.000		1.000			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
			All Prior Years	FY 2012	FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			0.000	4.424		4.507		4.568		0.000		4.568			
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

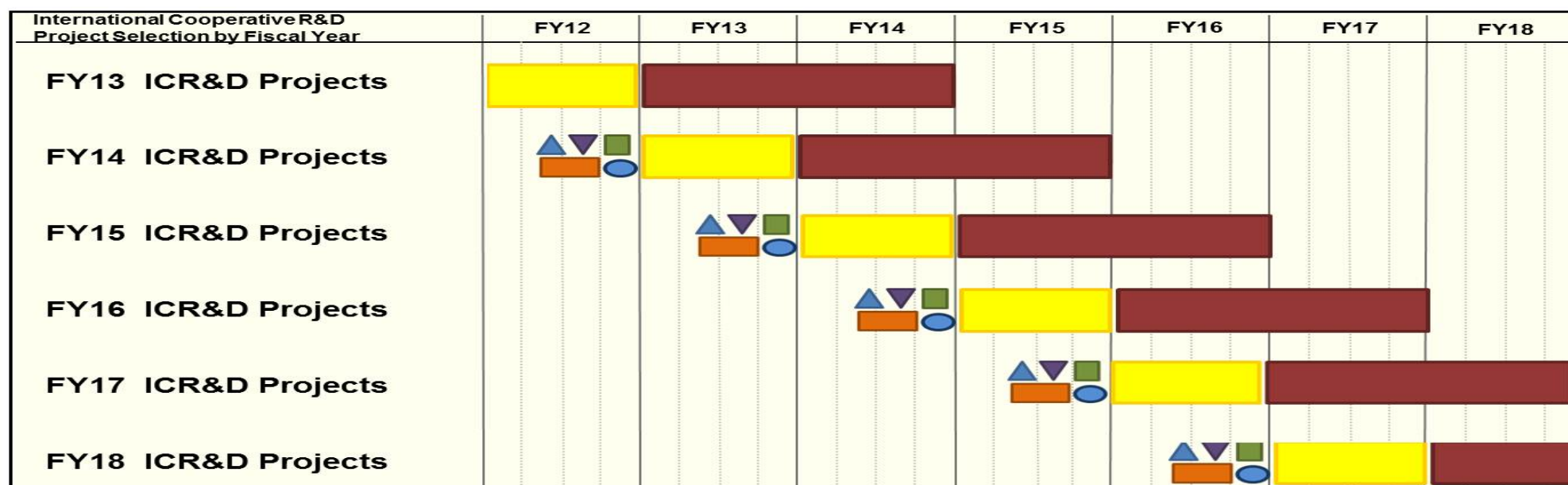
R-1 ITEM NOMENCLATURE

PE 0603790F: NATO Research and Development

PROJECT

64NATO: Nato Coop R&D

PE 63790F – International Cooperative Research and Development Schedule



Legend:

- | | | |
|---------------------------------|--|---|
| Call letter to MAJCOMs | Coordination of review panel results | Project Being Worked with ICR&D funding |
| Project nomination packages due | Approved projects letter sent to MAJCOMs | |
| Review Panel | Selected projects develop International Agreements | |

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY14 ICR&D Projects - Call Letter	2	2012	2	2012
FY14 ICR&D Projects - nomination package development	2	2012	3	2012
FY14 ICR&D Projects - Review panel	3	2012	3	2012
FY14 ICR&D Projects - Coordination of review panel results	4	2012	4	2012
FY14 ICR&D Projects - Approved projects letter sent to MAJCOMs	4	2012	4	2012
FY14 ICR&D Projects - Agreement development, negotiations, and signature	1	2013	4	2013
FY14 ICR&D Projects - RDT&E cooperative project work	1	2014	4	2015
FY15 ICR&D Projects - Call Letter	2	2013	2	2013
FY15 ICR&D Projects - Approved projects letter sent to MAJCOMs	4	2013	4	2013
FY15 ICR&D Projects - RDT&E cooperative project work	1	2015	4	2016
FY16 ICR&D Projects - Call Letter	2	2014	2	2014
FY16 ICR&D Projects - Approved projects letter sent to MAJCOMs	4	2014	4	2014
FY16 ICR&D Projects - RDT&E cooperative project work	1	2016	4	2017
FY17 ICR&D Projects - Call Letter	2	2015	2	2015
FY17 ICR&D Projects - Approved projects letter sent to MAJCOMs	4	2015	4	2015
FY17 ICR&D Projects - RDT&E cooperative project work	1	2017	4	2018
FY18 ICR&D Projects - Call Letter	2	2016	2	2016
FY18 ICR&D Projects - Approved projects letter sent to MAJCOMs	4	2016	4	2016
FY18 ICR&D Projects - RDT&E cooperative project work	1	2018	4	2018