

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	3.636	3.798	3.851	-	3.851	3.902	3.981	4.105	4.160	Continuing	Continuing
664645: <i>International Cooperative Research & Development</i>	3.636	3.798	3.851	-	3.851	3.902	3.981	4.105	4.160	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The mission of this program is to establish, sustain, and expand mutually beneficial international partnerships through the implementation of international cooperative research, development, test, evaluation, and acquisition agreements thereby supporting the core competencies of the USAF and DoD and meeting mission requirements. These International Agreements (IAs) will significantly improve U.S. and allied conventional defense capabilities by leveraging our Allies' best defense technologies, eliminating costly duplication of research and development (R&D) efforts, accelerating the availability of defense systems, and promoting U.S. and allied interoperability or commonality.

The USAF is party to multiple bilateral and multilateral IAs to solve common US and allied military scientific and technological problems, develop materiel solutions, harmonize coalition requirements and build interoperability with our coalition partners. This program element funds the USAF to identify, develop, process, negotiate, implement, and manage IAs in compliance with statutory provisions, legal authorities, fiscal constraints, technology transfer controls, intellectual property rights, third party transfer provisions, equitability criteria, industrial base factors, and political-military interests. Included in this budget are international technology assessment teams; air, space, and cyber international armaments cooperation (IAC); specialized working groups; Air Senior National Representative activities; IAC program and project reviews; overseas R&D liaison offices; bilateral and multilateral staff talks; USAF displays at International Trade Shows to promote cooperation and interoperability activities; Engineering and Scientist Exchange Program (ESEP); and Administrative and Professional Exchange Program (APEP).

This program is in Budget Activity 6, Management and Support, because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation. These funds are not to be used for civilian salaries or the construction of permanent facilities.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	3.764	3.798	3.844	-	3.844
Current President's Budget	3.636	3.798	3.851	-	3.851
Total Adjustments	-0.128	-	0.007	-	0.007
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.109	-			
• Other Adjustments	-0.019	-	0.007	-	0.007

Change Summary Explanation

FY11: Adjustments (Cong General Reductions -\$0.019) shown in Other Adjustments Row.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
<p>Title: Engineer and Scientist Exchange Program/Administrative and Professional Exchange Program (ESEP/APEP)</p> <p>Description: Funds the USAF execution and management oversight of ESEP and APEP agreements. Funds eight to ten field level military and civilian personnel from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for tours at selected European and Asian government laboratories or other installations.</p> <p>FY 2011 Accomplishments: Continuation of execution and management oversight of ESEP and APEP agreements. Funds eight to ten field level military and civilian personnel from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for tours at selected European and Asian government laboratories or other installations.</p> <p>FY 2012 Plans: Continuation of execution and management oversight of ESEP and APEP agreements. Funds eight to ten field level military and civilian personnel from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for tours at selected European and Asian government laboratories or other installations.</p> <p>FY 2013 Base Plans:</p>	0.300	0.300	0.300	-	0.300

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continuation of execution and management oversight of ESEP and APEP agreements. Funds eight to ten field level military and civilian personnel from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for tours at selected European and Asian government laboratories or other installations. FY 2013 OCO Plans: N/A					
Title: International Research and Development Activities Description: Funds management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ) objectives and goals. Funds USAF participation in NATO forums to promote harmonization and interoperability between the U.S. and NATO through IAs. Funds USAF support and participation in OSD bi-lateral IAC forums. Funds technical assessments and discussions that support USAF and DoD objectives and goals. Funds USAF efforts to enhance existing relationships, technology development activities and interoperability issues with: Australia, Canada, Denmark, France, Germany, Israel, Italy, Japan, NATO, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, and UK. Funds USAF efforts to strengthen/build IAC relationships with: Brazil, Poland, Chile, Czech Republic, India, South Africa and Turkey. Funds USAF overseas R&D liaison office. FY 2011 Accomplishments: Continuation of management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ) objectives and goals. Funds USAF participation in NATO forums to promote harmonization and interoperability between the U.S. and NATO through IAs. Funds USAF support and participation in OSD bi-lateral IAC forums. Funds technical assessments and discussions that support USAF and DoD objectives and goals. Funds USAF efforts to enhance existing relationships, technology development activities and interoperability issues with: Australia, Canada, Denmark, France, Germany, Israel, Italy, Japan, NATO, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, and UK. Funds USAF efforts to strengthen/build IAC relationships with: Brazil, Poland, Chile, Czech Republic, India, South Africa and Turkey. Funds USAF overseas R&D liaison office. FY 2012 Plans: Continuation of management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ) objectives and goals. Funds USAF participation in NATO forums to promote harmonization and interoperability between the U.S. and NATO through IAs. Funds USAF support and participation in OSD bi-lateral IAC forums. Funds technical assessments and discussions that support USAF and DoD objectives	2.186	2.251	1.911	-	1.911

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
<p>and goals. Funds USAF efforts to enhance existing relationships, technology development activities and interoperability issues with: Australia, Canada, Denmark, France, Germany, Israel, Italy, Japan, NATO, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, and UK. Funds USAF efforts to strengthen/build IAC relationships with: Brazil, Poland, Chile, Czech Republic, India, South Africa and Turkey. Funds USAF overseas R&D liaison office.</p> <p>FY 2013 Base Plans: Continuation of management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ) objectives and goals. Funds USAF participation in NATO forums to promote harmonization and interoperability between the U.S. and NATO through IAs. Funds USAF support and participation in OSD bi-lateral IAC forums. Funds technical assessments and discussions that support USAF and DoD objectives and goals. Funds USAF efforts to enhance existing relationships, technology development activities and interoperability issues with: Australia, Canada, Denmark, France, Germany, Israel, Italy, Japan, NATO, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, and UK. Funds USAF efforts to strengthen/build IAC relationships with: Brazil, Poland, Chile, Czech Republic, India, South Africa and Turkey. Funds USAF overseas R&D liaison office.</p> <p>FY 2013 OCO Plans: N/A</p>					
<p>Title: Armaments Cooperation</p> <p>Description: Funds the USAF's ability to identify, develop, process, negotiate, implement, and manage the increasing number bilateral and multilateral IAs that meet the mission, objectives, and goals of the USAF and DoD. Work will continue on IAs developed, but not signed, during FY10 in the areas of: materials and composites, human effectiveness, robotics, nanotechnology, coalition information sharing, biometrics, virtual munitions design, hypersonics, alternative energy, IED defeat, WMD defeat, distributed mission operations, lasers, unmanned air systems, C4ISR sustainment, development, capabilities, interoperability and system level programs.</p> <p>FY 2011 Accomplishments: Continuation of funding for the USAF's ability to identify, develop, process, negotiate, implement, and manage the increasing number bilateral and multilateral IAs that meet the mission, objectives, and goals of the USAF and DoD. Work will continue on IAs developed, but not signed, during FY10 in the areas of: materials and composites, human effectiveness, robotics, nanotechnology, coalition information sharing, biometrics, virtual</p>	0.750	0.800	0.750	-	0.750

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
<p>munitions design, hypersonics, alternative energy, IED defeat, WMD defeat, distributed mission operations, lasers, unmanned air systems, C4ISR sustainment, development, capabilities, interoperability and system level programs.</p> <p>FY 2012 Plans: Continuation of funding for the USAF's ability to identify, develop, process, negotiate, implement, and manage the increasing number bilateral and multilateral IAs that meet the mission, objectives, and goals of the USAF and DoD. Work will continue on IAs developed, but not signed, during FY10 in the areas of: materials and composites, human effectiveness, robotics, nanotechnology, coalition information sharing, biometrics, virtual munitions design, hypersonics, alternative energy, IED defeat, WMD defeat, distributed mission operations, lasers, unmanned air systems, C4ISR sustainment, development, capabilities, interoperability and system level programs.</p> <p>FY 2013 Base Plans: Continuation of funding for the USAF's ability to develop and negotiate the increasing number proposals for ICRD&A bi-lateral and multi-lateral Agreements with key allies. Work will continue on agreements developed, but not signed, during FY10 in the areas of: materials and composites, human effectiveness, robotics, nanotechnology, coalition information sharing, biometrics, virtual munitions design, hypersonics, alternative energy, IED defeat, WMD defeat, distributed mission operations, lasers, unmanned air systems, reconnaissance and surveillance, command and control, capabilities, interoperability and system level programs.</p> <p>FY 2013 OCO Plans: N/A</p>					
<p>Title: Air Force Material Command (AFMC)</p> <p>Description: Funds AFMC's ability to support IAC R&D efforts within the Air Force Research Laboratories (AFRL) and other organizations within AFMC. Funds technical assessments and discussions that support the development of IAs.</p> <p>FY 2011 Accomplishments: Continuation of funds AFMC's ability to support IAC R&D efforts within the Air Force Research Laboratories (AFRL) and other organizations within AFMC. Funds technical assessments and discussions that support the development of IAs.</p> <p>FY 2012 Plans:</p>	0.200	0.200	0.150	-	0.150

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
---	----------------	----------------	---------------------	--------------------	----------------------

<p>Continuation of funds AFMC's ability to support IAC R&D efforts within the Air Force Research Laboratories (AFRL) and other organizations within AFMC. Funds technical assessments and discussions that support the development of IAs.</p> <p>FY 2013 Base Plans: Continuation of funds AFMC's ability to support IAC R&D efforts within the Air Force Research Laboratories (AFRL) and other organizations within AFMC. Funds technical assessments and discussions that support the development of IAs.</p> <p>FY 2013 OCO Plans: N/A</p>					
---	--	--	--	--	--

<p>Title: International Space Cooperation</p> <p>Description: Funds research and development activities to provide a foundation upon which to develop operational strategies, concepts of operations, tactics techniques and procedures, and technologies and prototype systems with our allies, which in turn provides foundation for long-term, full spectrum operational cooperation. Space cooperation with our allies enables the USAF access to critical geography for distributed ground systems, and remote test ranges for test and evaluation of space capabilities in electronically challenged environments, as well as joint development and acquisition of space systems.</p> <p>FY 2011 Accomplishments: Continuation of funds to support research and development activities to provide a foundation upon which to develop operational strategies, concepts of operations, tactics techniques and procedures, and technologies and prototype systems with our allies, which in turn provides foundation for long-term, full spectrum operational cooperation. Space cooperation with our allies enables the USAF access to critical geography for distributed ground systems, and remote test ranges for test and evaluation of space capabilities in electronically challenged environments, as well as joint development and acquisition of space systems.</p> <p>FY 2012 Plans: Continuation of funds to support research and development activities to provide a foundation upon which to develop operational strategies, concepts of operations, tactics techniques and procedures, and technologies and prototype systems with our allies, which in turn provides foundation for long-term, full spectrum operational cooperation. Space cooperation with our allies enables the USAF access to critical geography for distributed</p>	0.150	0.187	0.190	-	0.190
--	-------	-------	-------	---	-------

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

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

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
ground systems, and remote test ranges for test and evaluation of space capabilities in electronically challenged environments, as well as joint development and acquisition of space systems. FY 2013 Base Plans: Continuation of funds to support research and development activities to provide a foundation upon which to develop operational strategies, concepts of operations, tactics techniques and procedures, and technologies and prototype systems with our allies, which in turn provides foundation for long-term, full spectrum operational cooperation. Space cooperation with our allies enables the USAF access to critical geography for distributed ground systems, and remote test ranges for test and evaluation of space capabilities in electronically challenged environments, as well as joint development and acquisition of space systems. FY 2013 OCO Plans: N/A					
Title: Cyberspace Cooperation Description: Funds establishing cooperative relationships with allies in cyberspace missions to ensure interoperability, sharing of information on threats, and developing new capabilities to defeat threats to our critical information systems. Supports integration of air, space, and cyberspace capabilities to create global effects. Cyberspace requires significant research and development efforts and responsiveness to avoid technological surprise. FY 2011 Accomplishments: Funds establishing cooperative relationships with allies in cyberspace missions to ensure interoperability, sharing of information on threats, and developing new capabilities to defeat threats to our critical information systems. Supports integration of air, space, and cyberspace capabilities to create global effects. Cyberspace requires significant research and development efforts and responsiveness to avoid technological surprise. FY 2012 Plans: Continuation of funds establishing cooperative relationships with allies in cyberspace missions to ensure interoperability, sharing of information on threats, and developing new capabilities to defeat threats to our critical information systems. Supports integration of air, space, and cyberspace capabilities to create global effects. Cyberspace requires significant research and development efforts and responsiveness to avoid technological surprise. FY 2013 Base Plans:	0.050	0.060	0.550	-	0.550

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 1001004F: <i>International Activities</i>
---	--

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Continuation of funds establishing cooperative relationships with allies in cyberspace missions to ensure interoperability, sharing of information on threats, and developing new capabilities to defeat threats to our critical information systems. Supports integration of air, space, and cyberspace capabilities to create global effects. Cyberspace requires significant research and development efforts and responsiveness to avoid technological surprise. FY 2013 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	3.636	3.798	3.851	-	3.851

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

E. Acquisition Strategy
This program element is the only source of USAF funds to identify, develop, process, negotiate, implement, and manage IA opportunities for international armaments cooperation to (a) deploy and support common or interoperable equipment with our allies; (b) leverage USAF resources with our allies through cost sharing and economies of scale; and (c) exploit the best US and allied technologies for equipping coalition forces and supporting interoperability. We obtain these benefits only after IAC opportunities are identified, explored, assessed, developed and IAs are negotiated and concluded. This PE provides funds to execute up-front IAC responsibilities, realize cooperative opportunities, assess allied technologies and generate sound, cost-effective cooperative programs between the USAF and our international partners. Once these initiatives, programs, and projects are concluded IAs they are transferred to the appropriate technology or systems program office and are then funded by the program office.

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.