

UNCLASSIFIED

PE NUMBER: 1001004F
PE TITLE: International Activities

| Exhibit R-2, RDT&E Budget Item Justification | | | | | | | | | DATE February 2005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------|---------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|------------------------------|-------|--|----------------|----------------|----------------|----------------|---------------------------------|-------|-------|-------|-------|------------------------------------|-------|-------|-------|-------|-----------------------|--------|--------|--|--|--------------------------------------|--|--|--|--|---------------------------|--|--|--|--|-------------------------|--|--|--|--|----------------|--------|--------|--|--|--------------------|--|--|--|--|--|--|--|--|--|-----|--|--|--|--|
| BUDGET ACTIVITY 06 RDT&E Management Support | | | | | PE NUMBER AND TITLE 1001004F International Activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cost (\$ in Millions) | FY 2004 Actual | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Program Element (PE) Cost | 3.594 | 3.910 | 3.739 | 3.867 | 3.939 | 4.006 | 4.099 | 4.175 | Continuing | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4645 International Cooperative Research & Development | 3.594 | 3.910 | 3.739 | 3.867 | 3.939 | 4.006 | 4.099 | 4.175 | Continuing | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description and Budget Item Justification</u></p> <p>The mission of this program is to gain access to our Allies' best defense technologies, eliminate costly duplication of Research and Development (R&D) efforts, accelerate availability of defense systems, and to deploy and sustain common or interoperable USAF and Allied equipment through International Cooperative Research and Development (ICR&D).</p> <p>The USAF is party to multiple international cooperative agreements to solve common US and Allied military scientific and technological problems and to develop materiel solutions to harmonize coalition requirements. This program funds the USAF to support, develop, process, negotiate, implement, and manage these international cooperative agreements and projects in compliance with statutory reporting provisions and exacting legal statutes, fiscal constraints, technology transfer controls, intellectual property rights, third party transfer provisions, quid-pro-quo criteria, industrial base factors, and political-military interests. Included in this budget are domestic and international technology assessment teams; specialized working groups; Long-Term Technology Project developments; support for cooperative opportunity assessments; developing, processing, negotiating and managing international agreements; oversight of ICR&D projects; overseas R&D liaison and coordination offices; bilateral and multilateral staff talks; Engineering and Scientist Exchange Program (ESEP); and Administrative and Professional Exchange Program (APEP). Funds USAF participation in the NATO Research and Technology Organization (RTO). Funding in support of International Space Cooperation.</p> <p>This program is in Budget Activity 6, Management and Support, funding provides for general R&D Management support for all aspects of ICR&D activities in the USAF.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>B. Program Change Summary (\$ in Millions)</u></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 55%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2004</u></th> <th style="width: 10%; text-align: center;"><u>FY 2005</u></th> <th style="width: 10%; text-align: center;"><u>FY 2006</u></th> <th style="width: 10%; text-align: center;"><u>FY 2007</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">3.834</td> <td style="text-align: center;">3.945</td> <td style="text-align: center;">4.026</td> <td style="text-align: center;">4.099</td> </tr> <tr> <td>(U) Current PBR/President's Budget</td> <td style="text-align: center;">3.594</td> <td style="text-align: center;">3.910</td> <td style="text-align: center;">3.739</td> <td style="text-align: center;">3.867</td> </tr> <tr> <td>(U) Total Adjustments</td> <td style="text-align: center;">-0.240</td> <td style="text-align: center;">-0.035</td> <td></td> <td></td> </tr> <tr> <td>(U) Congressional Program Reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional Rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional Increases</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Reprogrammings</td> <td style="text-align: center;">-0.240</td> <td style="text-align: center;">-0.035</td> <td></td> <td></td> </tr> <tr> <td> SBIR/STTR Transfer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) <u>Significant Program Changes:</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> N/A</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | (U) Previous President's Budget | 3.834 | 3.945 | 4.026 | 4.099 | (U) Current PBR/President's Budget | 3.594 | 3.910 | 3.739 | 3.867 | (U) Total Adjustments | -0.240 | -0.035 | | | (U) Congressional Program Reductions | | | | | Congressional Rescissions | | | | | Congressional Increases | | | | | Reprogrammings | -0.240 | -0.035 | | | SBIR/STTR Transfer | | | | | (U) <u>Significant Program Changes:</u> | | | | | N/A | | | | |
| | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Previous President's Budget | 3.834 | 3.945 | 4.026 | 4.099 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Current PBR/President's Budget | 3.594 | 3.910 | 3.739 | 3.867 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Total Adjustments | -0.240 | -0.035 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Congressional Program Reductions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Congressional Rescissions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Congressional Increases | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reprogrammings | -0.240 | -0.035 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SBIR/STTR Transfer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) <u>Significant Program Changes:</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

| BUDGET ACTIVITY 06 RDT&E Management Support | | | | | PE NUMBER AND TITLE 1001004F International Activities | | | PROJECT NUMBER AND TITLE 4645 International Cooperative Research & Development | | |
|---|-------------------|---------------------|---------------------|---------------------|--|---------------------|---------------------|---|---------------------|-------|
| Cost (\$ in Millions) | FY 2004 Actual | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total |
| 4645 International Cooperative Research & Development | 3.594 | 3.910 | 3.739 | 3.867 | 3.939 | 4.006 | 4.099 | 4.175 | Continuing | TBD |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

(U) **A. Mission Description and Budget Item Justification**

The mission of this program is to gain access to our Allies' best defense technologies, eliminate costly duplication of Research and Development (R&D) efforts, accelerate availability of defense systems, and to deploy and sustain common or interoperable USAF and Allied equipment through International Cooperative Research and Development (ICR&D).

The USAF is party to multiple international cooperative agreements to solve common US and Allied military scientific and technological problems and to develop materiel solutions to harmonize coalition requirements. This program funds the USAF to support, develop, process, negotiate, implement, and manage these international cooperative agreements and projects in compliance with statutory reporting provisions and exacting legal statutes, fiscal constraints, technology transfer controls, intellectual property rights, third party transfer provisions, quid-pro-quo criteria, industrial base factors, and political-military interests. Included in this budget are domestic and international technology assessment teams; specialized working groups; Long-Term Technology Project developments; support for cooperative opportunity assessments; developing, processing, negotiating and managing international agreements; oversight of ICR&D projects; overseas R&D liaison and coordination offices; bilateral and multilateral staff talks; Engineering and Scientist Exchange Program (ESEP); and Administrative and Professional Exchange Program (APEP). Funds USAF participation in the NATO Research and Technology Organization (RTO). Funding in support of International Space Cooperation.

This program is in Budget Activity 6, Management and Support, funding provides for general R&D Management support for all aspects of ICR&D activities in the USAF.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

| | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|--|----------------|----------------|----------------|----------------|
| (U) NC3A - Funds the US R&D Coordination Office and administrative support for the assigned US Engineering and Technical professionals and cooperative Research and Development activities assigned to the NC3A. | 0.100 | 0.100 | 0.100 | 0.000 |
| (U) ESEP/APEP - Funds the USAF execution and the management oversight of ESEP and APEP agreements. Funds approximately eight to ten field level military and civilian personnel from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for two-year tours at selected European and Asian government laboratories or other institutions. By FY06, the USAF will have signed ESEP agreements with 18 countries and be in negotiation with an additional 3 countries. By FY06, the USAF will have signed APEP agreements with 2 countries and be in negotiations with at least one other country. | 0.175 | 0.175 | 0.175 | 0.175 |
| (U) ICR&D - Funds USAF overseas R&D liaison offices. Funds management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ). Funds USAF participation at the | 1.799 | 2.140 | 1.994 | 2.222 |

Project 4645

R-1 Shopping List - Item No. 117-2 of 117-4

Exhibit R-2a (PE 1001004F)

UNCLASSIFIED

| Exhibit R-2a, RDT&E Project Justification | | | | DATE | |
|---|--|---|-------|---|-------|
| | | | | February 2005 | |
| BUDGET ACTIVITY | | PE NUMBER AND TITLE | | PROJECT NUMBER AND TITLE | |
| 06 RDT&E Management Support | | 1001004F International Activities | | 4645 International Cooperative Research & Development | |
| <p>NATO Five-Power Forum to promote NATO harmonization of requirements, standardization, and new cooperative R&D programs. Funds USAF participation at the US-Japan Systems and Technology Forum and Defense Cooperation Committee Meetings with Singapore and South Korea. Partially funds technical assessments and international agreements negotiation start-up costs associated with promising cooperative R&D programs. Funds upgrades to the DoD International Agreements Management System. Funds negotiation and support costs associated with the NATO AWACS Board of Directors. Funds periodic bilateral/multilateral meetings to define new areas of possible cooperation and exploratory visits to Brazil, Czech Republic, Denmark, India, Israel, Italy, Netherlands, Poland, Portugal, Spain, Singapore, Sweden, Taiwan, Ukraine, and other countries on new technology exchange projects.</p> | | | | | |
| (U) | Armaments Cooperation - Funds the USAF's ability to develop and negotiate the increasing number of proposals for ICR&D bi-lateral and multi-lateral Agreements with key allies. Work will continue on agreements developed, but not signed, during FY05 and work will be initiated in the areas of: Communication and Information; Interoperability; Coalition Warfare; Reconnaissance and Surveillance; Global Positioning Satellites; SATCOM; Space Surveillance; Ground Based Relay Stations; Unmanned Combat Air System; Airborne Radar; Early Warning Systems; Counter Air Weapons; Command and Control; Biological Warfare Protection; Distributed Simulation Technology; Non-lethal Technologies; Laser Technology; Propulsion; Directed-Energy Technology; and Electromagnetic Technology. | 0.800 | 0.800 | 0.800 | 0.800 |
| (U) | AFRL - Funds support and oversight of International Armaments Cooperation R&D efforts within the Air Force Research Laboratories (AFRL). Funds AFRL technical assessments and discussions to identify, create, and develop promising cooperative R&D programs. Funds AFMC participation in panel meetings of The Technical Coordination Program (TTCP), Air Standardization Coordinating Committee and NATO Conference of National Armaments Directors (CNAD) Working Groups. | 0.600 | 0.600 | 0.600 | 0.600 |
| (U) | NATO RTO - Funds USAF participation in the NATO RTO activities. The FY06/07 activities will include but are not limited to: 1) Mitigation and Control of High Cycle Fatigue; 2) Critical Technologies for Hypersonic Vehicle Development; 3) Unmanned Material Vehicles as Force Multipliers; 4) Network Centric Operations Security; 5) Testing of Precision Airdrop Systems; 6) Information and Knowledge; 7) Mission Management; and 8) Sensors, Electronics, Processing and Components. | 0.075 | 0.050 | 0.025 | 0.025 |
| (U) | International Space Cooperation - New and growing mission requirement to be supported by the International Activities. Funds research and development cooperation to provide a foundation upon which to develop operational strategies, concepts, and technologies with our allies which in turn provides a foundation for long-term operational cooperation. Cooperation with our allies in space will allow the USAF to geographically distributed ground systems and provides invaluable access to remote test ranges for test and evaluation of space systems | 0.045 | 0.045 | 0.045 | 0.045 |
| (U) | Total Cost | 3.594 | 3.910 | 3.739 | 3.867 |
| Project 4645 | | R-1 Shopping List - Item No. 117-3 of 117-4 | | Exhibit R-2a (PE 1001004F) | |

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY

06 RDT&E Management Support

PE NUMBER AND TITLE

1001004F International Activities

PROJECT NUMBER AND TITLE

4645 International Cooperative
Research & Development(U) **C. Other Program Funding Summary (\$ in Millions)**

| <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>Cost to</u> | <u>Total Cost</u> |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| <u>Actual</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Complete</u> | |

(U) N/A

(U) **D. Acquisition Strategy**

This program element is the only source of USAF funds to identify and initiate 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. We obtain these benefits only after international cooperative opportunities are identified, explored, developed, assessed and international agreements are negotiated and concluded. This PE provides funds to execute up-front armaments cooperation responsibilities, realize cooperative opportunities, assess allied technologies, and generate sound, cost-effective cooperative programs between the USAF and our international partners. Once these initiatives and programs are started as international efforts they are transferred to the appropriate technology or systems program office and are then funded by the program office.