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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 0604857F: <i>Operationally Responsive Space</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 | - | 108.014 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 64A015: <i>ORS Common Services</i> | - | 11.683 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 64A020: <i>AF Funded ORSSats</i> | - | 96.331 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

[#] 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

Note

Beginning in FY 2013, 0604857F, ORS, efforts are being descoped, and the remaining efforts transferred to other space programs in order to better integrate the ORS concept into the entire space architecture.

There is no funding required for this program beyond the FYDP.

A. Mission Description and Budget Item Justification

The successful integration of space-based capabilities into the core of U.S. national security operations has resulted in dramatically increased demand for and dependence upon space capabilities. As a result, U.S. Strategic Command (USSTRATCOM) identified three needs: 1) to rapidly augment existing space capabilities when needed to expand operational capability; 2) to rapidly reconstitute/replenish critical space capabilities to preserve "continuity of operations" capability; 3) to rapidly exploit and infuse space technological or operational innovations to increase U.S. advantage.

Since the ORS standup in 2007, the terms resiliency and responsiveness in association with space programs are now seen in almost every policy and guidance document, not just at the DoD level, but at a National level as well. Resilience has become a key criterion in evaluating alternative architectures, including cost-effective space system protection, hosting payloads on a mix of platforms in various orbits, drawing on distributed international and commercial partner capabilities, and developing and maturing responsive space capabilities. The Air Force is transitioning the activities of the ORS program, and synergistically applying its efforts to other space technology efforts.

This refocused effort will integrate the operationally responsive space efforts, lessons learned, principles, and activities into other Air Force Space and Missile Systems Center (SMC) programs of record. SMC will then be better able to improve resilience, survivability, and flexibility within programs across the SMC portfolio and to explore space mission augmentation options.

The Department of Defense will support the new approach by developing architectures for space mission areas that will include international cooperation and commercial solutions and will also look at how space missions are sustained and augmented to support the warfighter in all contingencies. The end result of the program's termination will be that operationally responsive space activities are fully integrated into SMC's ongoing architectures and Space Modernization Initiative, increasing resilience and flexibility in space systems.

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Exhibit R-2, RDT&E Budget Item Justification: 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 0604857F: *Operationally Responsive Space*

This program is in Budget Activity 04, Advanced Component Development and Prototypes, because the efforts are necessary to evaluate integrated technologies, representative modes, and prototype systems in a high fidelity and realistic environment.

| B. Program Change Summary (\$ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 110.379 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 108.014 | 0.000 | 0.000 | - | 0.000 |
| Total Adjustments | -2.365 | 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 | -2.365 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 64A020: *AF Funded ORSSats*

Congressional Add: *Responsive Launch Capability*

Congressional Add Subtotals for Project: 64A020

Congressional Add Totals for all Projects

| FY 2012 | FY 2013 |
|----------------|----------------|
| | |
| 25.000 | - |
| 25.000 | 0.000 |
| 25.000 | 0.000 |

Change Summary Explanation

FY2012: -\$2.365M for SBIR

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| Exhibit R-2A, RDT&E Project Justification: 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 0604857F: Operationally Responsive Space | | | | PROJECT 64A015: ORS Common Services | | | |
| 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 |
| 64A015: ORS Common Services | - | 11.683 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 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 | | | | | | | | | | | | |
| Note | | | | | | | | | | | | |
| Beginning in FY 2013, 0604857F, ORS, efforts are being descope, and the remaining efforts transferred to other space programs in order to better integrate the ORS concept into the entire space architecture. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| ORS Common Services supports the entire ORS partnership (Services, Intelligence Community, Reserve Component, NASA, and our Allies). These activities include studies and analysis to maintain the ORS investment roadmap and coordination and planning activities across the ORS Enterprise. ORS Common Services works with Joint Force Commanders (JFC) and the Services to identify the most likely emergent space needs, make plans and preparations to meet those needs, evaluate results of operational experimentation, and prepare plans and procedures for operational employment and transition. These foundational activities ensure ORS enabler investments are optimally targeted to quickly mature ORS's ability to execute rapid responses to time-critical needs when they arise. Common Services identifies and presents options for concepts/solutions and experimentation including international efforts, conducts concepts development, solutions assessment, rapid evaluation of alternatives, experimentation planning, modeling and simulation, and develops budgetary recommendations for ORS solutions. Beginning in FY13, the effort in this BPAC is being continued in BPAC 64A020. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | FY 2012 | FY 2013 | FY 2014 | |
| Title: Analysis, modeling, simulation, and program support | | | | | | | | | 11.683 | 0.000 | 0.000 | |
| Description: Perform concepts and solutions for warfighter urgent needs. Perform modeling, simulations, and analyses for various alternative concepts, and develop conceptual requirements. Provides the total program management administration for the entire program. | | | | | | | | | | | | |
| FY 2012 Accomplishments: Performed further kick-off studies for urgent needs as presented by JFCs. Continued to fund operations and transition support and joint military utility analyses for ORS-1 and TacSat-4. Supported the transition of the ORS Office and transfer of data to the Space and Missile Systems Center. Supported COCOM wargames and International MOU workshops. Performed space maneuvering and nanosatellite performance studies. | | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | | 11.683 | 0.000 | 0.000 | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
| 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 0604857F: <i>Operationally Responsive Space</i> | PROJECT 64A015: <i>ORS Common Services</i> |
| C. Other Program Funding Summary (\$ in Millions) N/A | | |
| Remarks | | |
| D. Acquisition Strategy Competitively award contracts through ORS Office or partner organizations. | | |
| E. 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 0604857F: Operationally Responsive Space | | | | | | PROJECT 64A015: ORS Common Services | | | |
| 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 |
| ORS Concept Development | PO | Aerospace Corp:El Segundo, CA | - | 2.972 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 7.200 |
| Subtotal | | | 0.000 | 2.972 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 7.200 |
| 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 |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 |
| Program support including engineering, management, security, information technology, administrative, and security. (PMA) | Various | Various; | - | 2.971 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Engineering Mgt, Systems engineering (PMA) | PO | Aerospace:El Segundo, CA | - | 1.150 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Systems engineering (PMA) | C/T&M | Cobham:Albuquerque, NM | - | 3.542 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Engineering Management (PMA) | C/T&M | Scitor:Herndon, VA | - | 1.048 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 | | |
| 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 0604857F: <i>Operationally Responsive Space</i> | | | | PROJECT 64A015: <i>ORS Common Services</i> | | | | |

| 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 | 8.711 | | 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 | 11.683 | 0.000 | 0.000 | 0.000 | 0.000 | | | |

Remarks

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

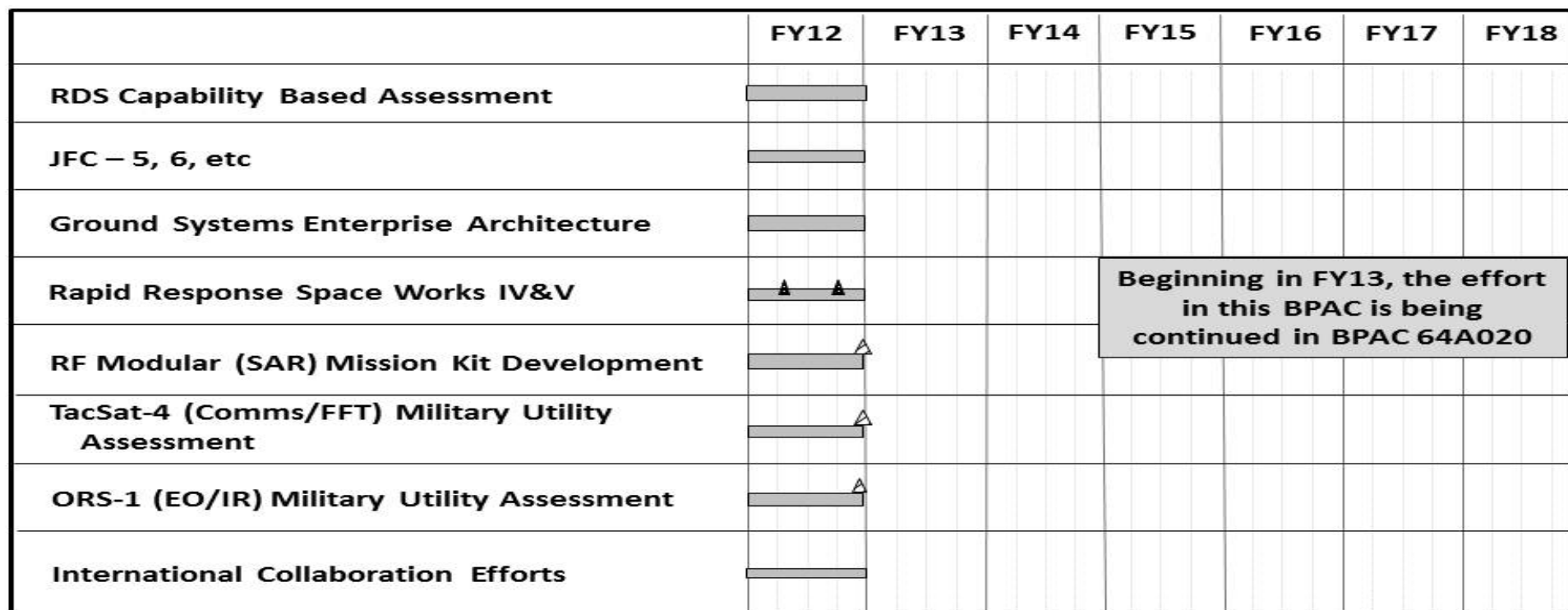
3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0604857F: Operationally Responsive Space

PROJECT

64A015: ORS Common Services



Design / Modification / Enablers
 Jumpstarts / JOD events
 Deliverable

Comms – Communications
 FFT – Friendly Force Tracking
 HSI – Hyper-Spectral Imagery
 IV&V – Independent Validation & Verification
 JODs – Joint Operational Demonstrations

JFC – Joint Force Commander
 MOU – Memorandum of Understanding
 RDS – Rapidly Deployable Space
 RRSW – Rapid Response Space Works
 RF – Radio Frequency
 SAR – Synthetic Aperture Radar

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | | DATE: April 2013 |
| 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 0604857F: <i>Operationally Responsive Space</i> | PROJECT 64A015: <i>ORS Common Services</i> | |

Schedule Details

| Events | Start | | End | |
|-------------------------------------------------------------------------------------------------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Rapidly Deployable Space (RDS) Capability Based Assessment | 1 | 2012 | 4 | 2012 |
| Additional JFC urgent need analyses | 1 | 2012 | 4 | 2012 |
| Ground Systems Enterprise Architecture for surveillance/reconnaissance, communications, and space situational awareness | 1 | 2012 | 4 | 2012 |
| RRSW IV&V | 1 | 2012 | 4 | 2012 |
| SAR Mission Kit Development Support | 1 | 2012 | 4 | 2012 |
| TacSat-4 military utility assessment | 1 | 2012 | 4 | 2012 |
| ORS-1 military utility assessment | 1 | 2012 | 4 | 2012 |
| International collaboration efforts | 1 | 2012 | 4 | 2012 |

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| Exhibit R-2A, RDT&E Project Justification: 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 0604857F: Operationally Responsive Space | | | | PROJECT 64A020: AF Funded ORSSats | | | |
| 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 |
| 64A020: AF Funded ORSSats | - | 96.331 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 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 | | | | | | | | | | | | |
| Note | | | | | | | | | | | | |
| Beginning in FY 2013, 0604857F, ORS, efforts are being descoped, and the remaining efforts transferred to other space programs in order to better integrate the ORS concept into the entire space architecture. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Operationally Responsive Space projects were optimized for prioritized theater use and/or surge, augmentation and replenishment of traditional space capabilities. The ORS Concept of Operations (CONOPS) drives the need for satellites featuring high degrees of modularity, standard interface vehicles, and the use of plug and play payloads and buses. | | | | | | | | | | | | |
| The Air Force will continue to maintain ORS-1, launched 29 Jun 2011 to respond to USCENTCOM's urgent need, validated by USSTRATCOM, to provide ISR for theater warfighters. The additional ORS Office efforts of maturing enabling elements will be descoped and the knowledge base will be transitioned as appropriate to other space programs including Global Positioning System, Advanced EHF Milsatcom, Space Based Infrared System, Space Control Technology, and the rest of the space architecture. | | | | | | | | | | | | |
| ORS is working with the University of Hawaii's (U of H) Hawaii Space Flight Laboratory (HSFL) and Sandia National Laboratory on the Low Earth Orbit Nanosatellite Integrated Defense Autonomous Systems (LEONIDAS) program. LEONIDAS is to design, fabricate, launch, and perform on-orbit operations of small and micro-satellites for early detection of missile launches by hostile forces. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | | FY 2012 | FY 2013 | FY 2014 |
| Title: Cross Cutting | | | | | | | | | | 4.745 | 0.000 | 0.000 |
| Description: Perform cross-cutting activities that support all three tiers of ORS activities. | | | | | | | | | | | | |
| FY 2012 Accomplishments: Continued operations, transition support, and joint military utility analyses for ORS-1 and TacSat-4. Continued SEPM and IV&V for RRSW & the Modular Space Vehicle (MSV). Continued ongoing systems engineering support of future mission development. Continued ORS-1 Mission Operations and Lessons Learned studies. Conducted Modeling and Simulations for Mission Evaluations for ORS Mission Kits. Refined ORS CONOPS, Enterprise and Architecture, and Systems Engineering Processes. | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 | | |
| 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 0604857F: <i>Operationally Responsive Space</i> | | PROJECT 64A020: <i>AF Funded ORSSats</i> | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2012 | FY 2013 | FY 2014 |
| Supported international Memorandum of Understanding workshops. Performed Space maneuvering and Nanosatellite performance studies. Transferred lessons learned, designs, data, and processes to the Space and Missile Systems Center. | | | | | |
| Title: Tier-1 | | | 4.498 | 0.000 | 0.000 |
| Description: Perform Tier-1 activities--establishing the use of existng space systems, operations, and processes to provide responsive effects in minutes to days from when need is established. | | | | | |
| FY 2012 Accomplishments: Continued to coordinate integration of ORS Tier-1 solutions, experiments and demonstrations into COCOMs and Component exercises and operations in order to establish visibility and socialization of ORS concepts and solutions. Developed CONOPs for COCOM use of assets. Supported COCOM wargames. Transferred the automated Toolkit to the Joint Space Operations Center Mission System. Continued ORS-1 operational support. | | | | | |
| Title: Tier-2 | | | 4.874 | 0.000 | 0.000 |
| Description: Perform Tier-2 deployment demonstrations to provide field-ready capabilities and enabler maturation projects. | | | | | |
| FY 2012 Accomplishments: Continued to support Rapid Response Space Works (RRSW) capabilities at the minimum level required to support ORS-2 MSV Bus delivery, ORS-3 Enabler Mission, ORS-4 Super Strypi FY13 launches, and maintain facility safety. | | | | | |
| Title: Tier-3 | | | 57.214 | 0.000 | 0.000 |
| Description: Perform Tier-3 design, fabrication, and integration to satisfy joint force commander needs. Provide strategic science and technology direction and execution and low cost launch vehicle development. | | | | | |
| FY 2012 Accomplishments: Continued development the ORS-2 MSV modular RF Payload to a pre-CDR design in order to complete and deliver the MSV multi-mission Bus and its associated hardware (space common data link radio) along with the Gryphon cryptology unit (software based encryption for satellite command and control) in FY13. Continued toward the ORS-3 Enabler Mission launch in 4QFY13. Continued the ORS-4 Super Strypi launcher (employing an Autonomous Flight Safety System) to launch a 300Kg microsatellite class space vehicle in 4QFY13. | | | | | |
| Accomplishments/Planned Programs Subtotals | | | 71.331 | 0.000 | 0.000 |
| | | | FY 2012 | FY 2013 | |
| Congressional Add: Responsive Launch Capability | | | 25.000 | - | |

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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 0604857F: <i>Operationally Responsive Space</i> | | PROJECT 64A020: <i>AF Funded ORSSats</i> |
| | | | FY 2012 | FY 2013 |
| FY 2012 Accomplishments: Continued the ORS-3 Enabler Mission and selected launch vehicle improvements leading to a launch in 4QFY13. Continued developing the ORS-4 Super Strypi ultra-low cost, rail launched new small launch capability. Continued development and qualification testing of autonomous flight safety assemblies, on-board metric tracking, and space based range. | | | | |
| Congressional Adds Subtotals | | | 25.000 | 0.000 |

C. Other Program Funding Summary (\$ in Millions)

| <u>Line Item</u> | <u>FY 2012</u> | <u>FY 2013</u> | <u>FY 2014</u> <u>Base</u> | <u>FY 2014</u> <u>OCO</u> | <u>FY 2014</u> <u>Total</u> | <u>FY 2015</u> | <u>FY 2016</u> | <u>FY 2017</u> | <u>FY 2018</u> | <u>Cost To</u> <u>Complete</u> | <u>Total Cost</u> |
|-----------------------------------------------------------------------------------------------------------|----------------|----------------|-------------------------------|------------------------------|--------------------------------|----------------|----------------|----------------|----------------|-----------------------------------|-------------------|
| • RDTE: BA04: Line Item # 0603430F: <i>Advanced EHF MILSATCOM (SPACE)</i> | 0.000 | 1.500 | 1.500 | | 1.500 | 1.500 | 1.500 | 1.500 | 0.000 | Continuing | Continuing |
| • RDTE: BA04: Line Item # 0603438F: <i>Space Control Technology</i> | 0.000 | 2.000 | 2.000 | | 2.000 | 2.000 | 2.000 | 2.000 | 0.000 | Continuing | Continuing |
| • RDTE: BA04: Line Item # 0604858F: <i>Tech Transition Program</i> | 0.000 | 3.000 | 3.000 | | 3.000 | 3.000 | 3.000 | 3.000 | 0.000 | Continuing | Continuing |
| • RDTE: BA05: Line Item # 0604441F: <i>Space Based Infrared System (SBIRS) High EMD</i> | 0.000 | 2.000 | 2.000 | | 2.000 | 2.000 | 2.000 | 2.000 | 0.000 | Continuing | Continuing |
| • RDTE: BA07: Line Item # 0603423F: <i>Global Positioning System III - Operational Control Segment</i> | 0.000 | 1.500 | 1.500 | | 1.500 | 1.500 | 1.500 | 1.500 | 0.000 | Continuing | Continuing |

Remarks

D. Acquisition Strategy

Expediently award contracts through ORS Office or partner organizations.

E. 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 0604857F: Operationally Responsive Space | | | | | | PROJECT 64A020: AF Funded ORSSats | | | |
| 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 |
| Tier 1 operational capabilities, development, and integration | Various | Various; | - | 2.968 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| ORS-1 (JFC need #3) (Tier 1) | SS/CPFF | Goodrich:Danbury, CT | - | 1.530 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 212.800 |
| Rapid Response Space Works | C/CPFF | Millenium Eng.:Arlington, VA | - | 4.874 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| MSV RF Modular Payload (SAR) (Tier 3) | C/CPFF | Sierra Nevada:Sparks, NV | - | 9.080 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 500.000 |
| MSV Modular Bus (Tier 3) | C/CPFF | Northrop Grumman:Redondo Beach, CA | - | 25.028 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 500.000 |
| Space Common Data Link (Tier 3) | C/CPFF | L3 Comm.:Salt Lake, UT | - | 6.900 | May 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Sys Eng, Launch & Range, TPED Enablers (Tier 3) | Various | Various; | - | 16.206 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Responsive Launch Capability (ORS-3) | C/FPIF | Orbital:Chandler, AZ | - | 4.110 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Responsive Launch Capability (ORS-4) | SS/CPFF | U. of HI:Honolulu, HI | - | 10.006 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Responsive Launch Capability | Various | Various; | - | 10.884 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 57.100 |
| Subtotal | | | 0.000 | 91.586 | | 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 |
| Systems Eng. and Technical Asst. (Cross Cutting) | C/T&M | GSA:San Antonio, TX | - | 3.699 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |

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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 0604857F: Operationally Responsive Space | | | | | | PROJECT 64A020: AF Funded ORSSats | | | |
| 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 |
| Perform modeling, simulation, analysis, and assess alternative concepts/requirements (Cross Cutting) | Various | Various: | - | 1.046 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Subtotal | | | 0.000 | 4.745 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |
| 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 |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |
| 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 | 96.331 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |
| Remarks | | | | | | | | | | | | | | | |

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

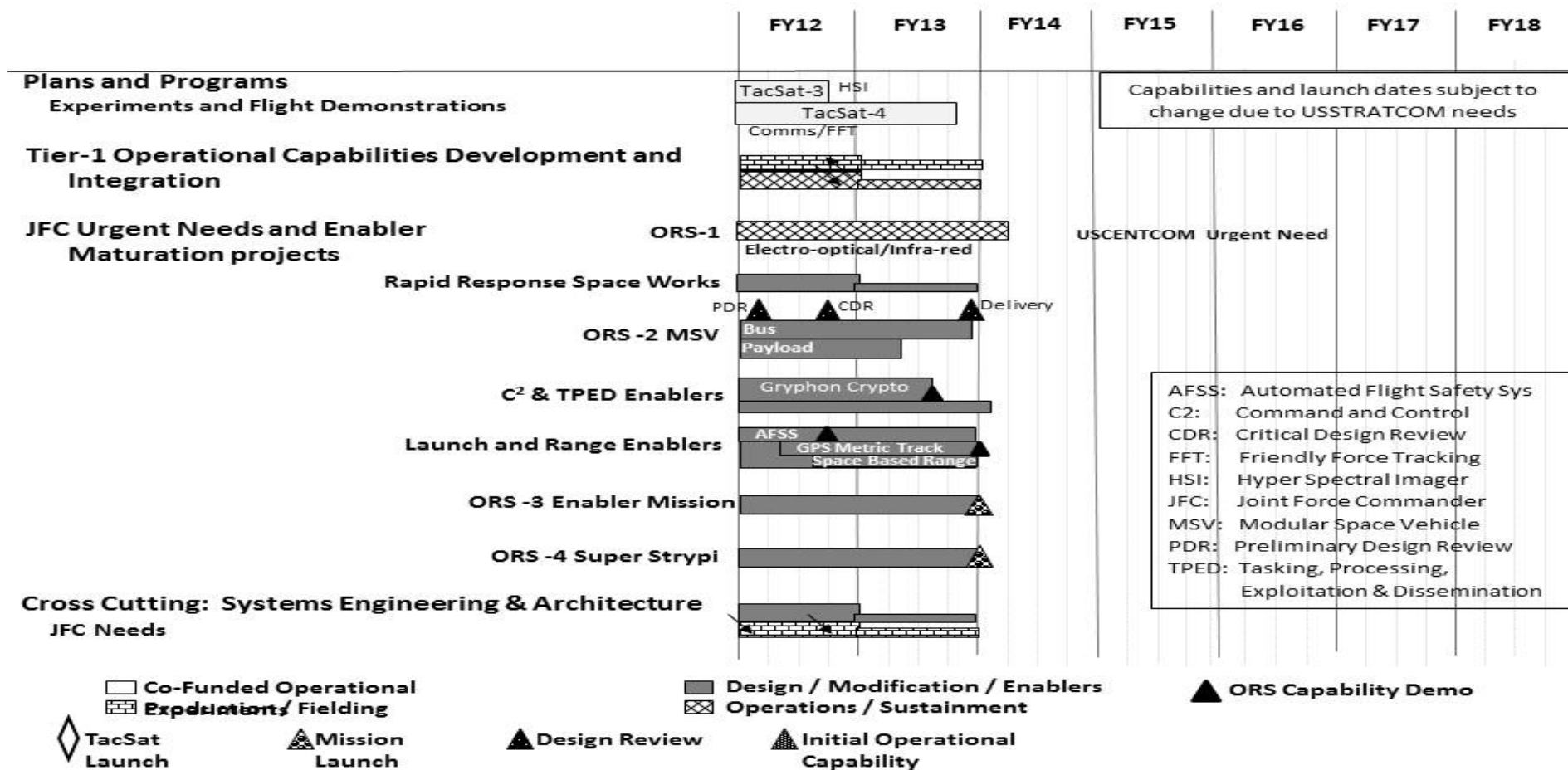
3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0604857F: Operationally Responsive Space

PROJECT

64A020: AF Funded ORSSats



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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | | DATE: April 2013 |
| 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 0604857F: <i>Operationally Responsive Space</i> | PROJECT 64A020: <i>AF Funded ORSSats</i> | |

Schedule Details

| Events | Start | | End | |
|--------------------------------------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| TacSat-3 launch and ops | 1 | 2012 | 3 | 2012 |
| TacSat-4 launch and ops | 1 | 2012 | 4 | 2013 |
| Cross-Cutting Activities: Systems Engineering & Architecture | 1 | 2012 | 4 | 2013 |
| Tier-1 Operational Capabilities Development and Integration | 1 | 2012 | 4 | 2013 |
| ORS-1 (CENTCOM Urgent Need) | 1 | 2012 | 1 | 2014 |
| MSV RF Modular Bus & Payload | 1 | 2012 | 4 | 2013 |
| C2 & TPED Enablers | 1 | 2012 | 4 | 2013 |
| ORS-3 Enabler Mission | 1 | 2012 | 4 | 2013 |
| ORS-4 Super Strydi | 1 | 2012 | 4 | 2013 |
| Launch and Range Enabler Maturation | 1 | 2012 | 4 | 2013 |
| Rapid Response Space Works | 1 | 2012 | 4 | 2013 |