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| Exhibit R-2, RDT&E Budget Item Justification | DATE February 2008 |
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|---|--|
| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | PE NUMBER AND TITLE 0604857F Operationally Responsive Space |
|---|--|

| Cost (\$ in Millions) | FY 2007 Actual | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | Cost to Complete | Total |
|------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| Total Program Element (PE) Cost | 42.131 | 96.516 | 110.032 | 115.394 | 97.498 | 97.383 | 128.984 | Continuing | TBD |
| A015 ORS COMMON SERVICES | 22.534 | 94.711 | 12.800 | 11.000 | 11.000 | 11.000 | 11.000 | Continuing | TBD |
| A016 Operationally Responsive Lift | 19.597 | 1.805 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| A020 AF-funded ORSSats | 0.000 | 0.000 | 97.232 | 104.394 | 86.498 | 86.383 | 117.984 | Continuing | TBD |

In FY2009, Project 64A020, AF-funded ORSSats is being established to identify the funding the Air Force is planning to use for Air Force projects to meet ORS requirements.

In FY2009, Project 64A015 is renamed ORS Common Services from Tactical Satellites. This is to delineate the funding the Air Force is contributing to support the overall DoD ORS effort versus the funding the Air Force is using to pursue specific Air Force ORS projects.

(U) 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 an increased reliance on and demand for those 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 operational capability; 3) to rapidly exploit and infuse space technological or operational innovations to increase U.S. advantage. Operationally Responsive Space (ORS) is designed to both improve the responsiveness of existing space capabilities (e.g., space, launch, and ground segments) and to develop complementary, affordable small satellite/launch vehicle combinations, and associated ground and command and control systems, that can be deployed in operationally relevant timeframes.

The ORS goals are to 1) Connect space to the user--make space capabilities more relevant to Joint Force Commanders and more adaptable to future joint force needs. 2) Respond to urgent needs--deliver effects to joint warfare in response to an urgent or previously unanticipated need. 3) Reduce development/deployment time and cost--complement existing space capabilities with an element focused on increased value and timely delivery. 4) Capitalize on emerging/innovative capabilities--adopt new capabilities from advanced technologies and innovative operational concepts.

When enabling responsiveness conditions are fully established, commanders will have three "tiers" of ORS capabilities for meeting urgent needs. Tier 1 involves employing existing, fielded space capabilities in a new and novel fashion within hours to days. Tier-1 solutions will not typically involve the design, engineering, or fabrication of new materiel items. Tier 2 involves deploying field-ready capabilities within days to weeks through rapid assembly, integration, testing, and deployment of small, low-cost satellites. Tier 3 involves developing new capabilities within a months-to-one-year timeframe. Tier 3 activities will typically involve hardware and software design, engineering, fabrication, and integration. Insertion of advanced technology into Tier 3 systems must be consistent with the targeted timeframe for the solution.

ORS program funds (along with other Service and Agency funds) are programmed to systematically mature ORS enabling elements to meet the responsiveness timelines required by the USSTRATCOM CONOPS (hours, days, weeks, months...not years) and the price points established in the 2007 NDAA (\$40M satellite vehicles, \$20M launches) by 2015. ORS funds will also aid in the leadership, coordination, and integration of Tier-1, 2, and 3 activities; fund TacSat and ORS Sat

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2008

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604857F Operationally Responsive Space

launch vehicles and operations; fund transition of TacSat demos to operational capabilities; and acquire and deploy operational satellites in response to USSTRATCOM urgent needs. When ORS-appropriate USSTRATCOM urgent needs arise during execution year, programmed ORS projects may be modified or delayed to meet those urgent needs.

This program is Budget Activity 04, Advanced Component Development and Prototypes, because it involves operational experimentation and evaluating integrated technologies to assess the performance or cost reduction potential of advanced technology.

(U) **B. Program Change Summary (\$ in Millions)**

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|--------------------------------------|----------------|----------------|----------------|
| (U) Previous President's Budget | 35.411 | 87.032 | 111.657 |
| (U) Current PBR/President's Budget | 42.131 | 96.516 | 110.032 |
| (U) Total Adjustments | 6.720 | 9.484 | |
| (U) Congressional Program Reductions | | | |
| Congressional Rescissions | | -0.616 | |
| Congressional Increases | | 10.100 | |
| Reprogrammings | 7.500 | | |
| SBIR/STTR Transfer | -0.780 | | |

(U) **Significant Program Changes:**

FY2007: Transferred \$10M to ORS in support of RADARSAT-2. Transferred -\$2.5M to AFRL in support of TacSat-3.

FY2008: Congressional increases of +\$4.0M for Low Earth Orbit Nanosatellite Integrated Defense Autonomous System, and +\$6.1M for classified effort.

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

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|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---|---------------------|---|--|
| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | | | | | | | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | | PROJECT NUMBER AND TITLE A015 ORS COMMON SERVICES | |
| Cost (\$ in Millions) | FY 2007 Actual | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | Cost to Complete | Total | |
| A015 ORS COMMON SERVICES | 22.534 | 94.711 | 12.800 | 11.000 | 11.000 | 11.000 | 11.000 | Continuing | TBD | |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

(U) A. Mission Description and Budget Item Justification

ORS Common Services will support the entire ORS partnership (Services, Intelligence Community, Reserve Component, NASA, and our Allies). These activities will include studies and analysis to maintain the ORS investment roadmap and coordination and planning activities across the ORS Enterprise. ORS Common Services will work with combatant commanders 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 will 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 will identify and present options for concepts/solutions and experimentation including international efforts, conduct concepts development, solutions assessment, rapid evaluation of alternatives, experimentation, modeling and simulation, and develop budgetary recommendations for ORS solutions. Funding will also be used for ground processing, dissemination and command and control capabilities to include software development, demonstrations, and modeling and simulation test beds. Additionally, Common Services will support on-going analyses, employment and integration of new concepts and methods for enhancing the responsiveness of the existing capabilities (Tier-1).

ORS Common Services may also include leveraging investments from other sources by providing launch vehicles, lift, integration, Tier 1-3 efforts, capabilities and studies, and interim transitions from ORS derived solutions to an operational capability in accordance with USSTRATCOM priorities/requests.

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

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|---|----------------|----------------|----------------|
| (U) Perform modeling, simulation, analysis, costing and assess utility for operationally responsive space concepts/requirements & program support | 3.434 | 17.100 | 9.800 |
| (U) TacSat integration and support, launch vehicle, range operations, and related launch support | 9.100 | 30.511 | |
| (U) ORS support to RADARSAT-2 | 10.000 | | |
| (U) ORS Sat block 1 and enabling elements | | 14.500 | |
| (U) ORS Sat block 2 and enabling elements | | 19.100 | |
| (U) Responsive application of existing capabilities (Tier I) | | 1.300 | |
| (U) Demonstration/integration/transition into common ground processing, dissemination, and command and control systems | | 2.100 | 3.000 |
| (U) Low Earth Orbit Nanosatellite Integrated Defense System | | 4.000 | |
| (U) Classified effort (per FY2008 congressional add) | | 6.100 | |
| (U) Total Cost | 22.534 | 94.711 | 12.800 |

Exhibit R-2a, RDT&E Project Justification

DATE

February 2008

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE

A015 ORS COMMON SERVICES

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

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</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>Complete</u> | |

(U)

(U) D. Acquisition Strategy

Execute through partnerships with selected existing acquisition organizations, using existing government contracts such as the Rocket Systems Launch Program's Orbital/Suborbital Program, Responsive Small Spacelift contracts, or AFRL Indefinite Delivery/Indefinite Quantity contracts when possible.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

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|---|--|--|--|--|--|--|--|--|--|--|--|--|
| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | | | | | | | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | | | PROJECT NUMBER AND TITLE A015 ORS COMMON SERVICES | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|

| <u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions) | <u>Contract Method & Type</u> | <u>Performing Activity & Location</u> | <u>Total Prior to FY 2007 Cost</u> | <u>FY 2007 Cost</u> | <u>FY 2007 Award Date</u> | <u>FY 2008 Cost</u> | <u>FY 2008 Award Date</u> | <u>FY 2009 Cost</u> | <u>FY 2009 Award Date</u> | <u>Cost to Complete</u> | <u>Total Cost</u> | <u>Target Value of Contract</u> |
|---|-----------------------------------|---|------------------------------------|---------------------|---------------------------|---------------------|---------------------------|---------------------|---------------------------|-------------------------|-------------------|---------------------------------|
| <u>(U) Product Development</u> | | | | | | | | | | | | |
| ORS Satellites (ORS Sat) block 1 and enabling elements | TBD | TBD | | | | 14.500 | Mar-07 | 0.000 | | | 14.500 | 14.500 |
| ORS Satellites (ORS Sat) block 2 and enabling elements | TBD | TBD | | | | 19.100 | Mar-07 | 0.000 | | | 19.100 | 19.100 |
| Responsive application of existing capabilities (Tier I) | TBD | TBD | | | | 1.300 | Mar-07 | 0.000 | | Continuing | TBD | TBD |
| Enablers for ground processing, dissemination and command and control | TBD | TBD | | | | 2.100 | Mar-07 | 3.000 | Oct-08 | Continuing | TBD | TBD |
| ORS support to RADARSAT-2 | SS-FFP | MacDonald Dettwiler Assoc. Richmond, British Columbia | | 10.000 | Sep-07 | | | | | | 10.000 | 10.000 |
| Low Earth Orbit Nanosatellite Integrated Defense System | TBD | TBD | | | | 4.000 | Mar-07 | | | | 4.000 | 4.000 |
| Classified effort (per FY2008 congressional add) | TBD | TBD | | | | 6.100 | Mar-07 | | | | 6.100 | 6.100 |
| Subtotal Product Development | | | 0.000 | 10.000 | | 47.100 | | 3.000 | | Continuing | TBD | TBD |
| Remarks: | | | | | | | | | | | | |
| <u>(U) Support</u> | | | | | | | | | | | | |
| Subtotal Support | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 |
| Remarks: | | | | | | | | | | | | |
| <u>(U) Test & Evaluation</u> | | | | | | | | | | | | |
| TacSat Launch Vehicle and Operations | C-FPI | Orbital, Chandler AZ | | 9.100 | | 30.511 | Mar-07 | | | Continuing | TBD | TBD |
| Subtotal Test & Evaluation | | | 0.000 | 9.100 | | 30.511 | | 0.000 | | Continuing | TBD | TBD |
| Remarks: | | | | | | | | | | | | |
| <u>(U) Management</u> | | | | | | | | | | | | |
| Perform modeling, simulation, analysis and assess alternative concepts/requirements & program support | various | various | | 3.434 | Dec-06 | 17.100 | Mar-07 | 9.800 | Oct-08 | Continuing | TBD | TBD |
| Subtotal Management | | | 0.000 | 3.434 | | 17.100 | | 9.800 | | Continuing | TBD | TBD |
| Remarks: | | | | | | | | | | | | |
| <u>(U)</u> | | | | | | | | | | | | |
| Subtotal | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 |
| Remarks: | | | | | | | | | | | | |

R-1 Line Item No. 56

Page-5 of 17

Project A015

Exhibit R-3 (PE 0604857F)

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE

A015 ORS COMMON SERVICES

(U) Total Cost

0.000

22.534

94.711

12.800

Continuing

TBD

TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2008

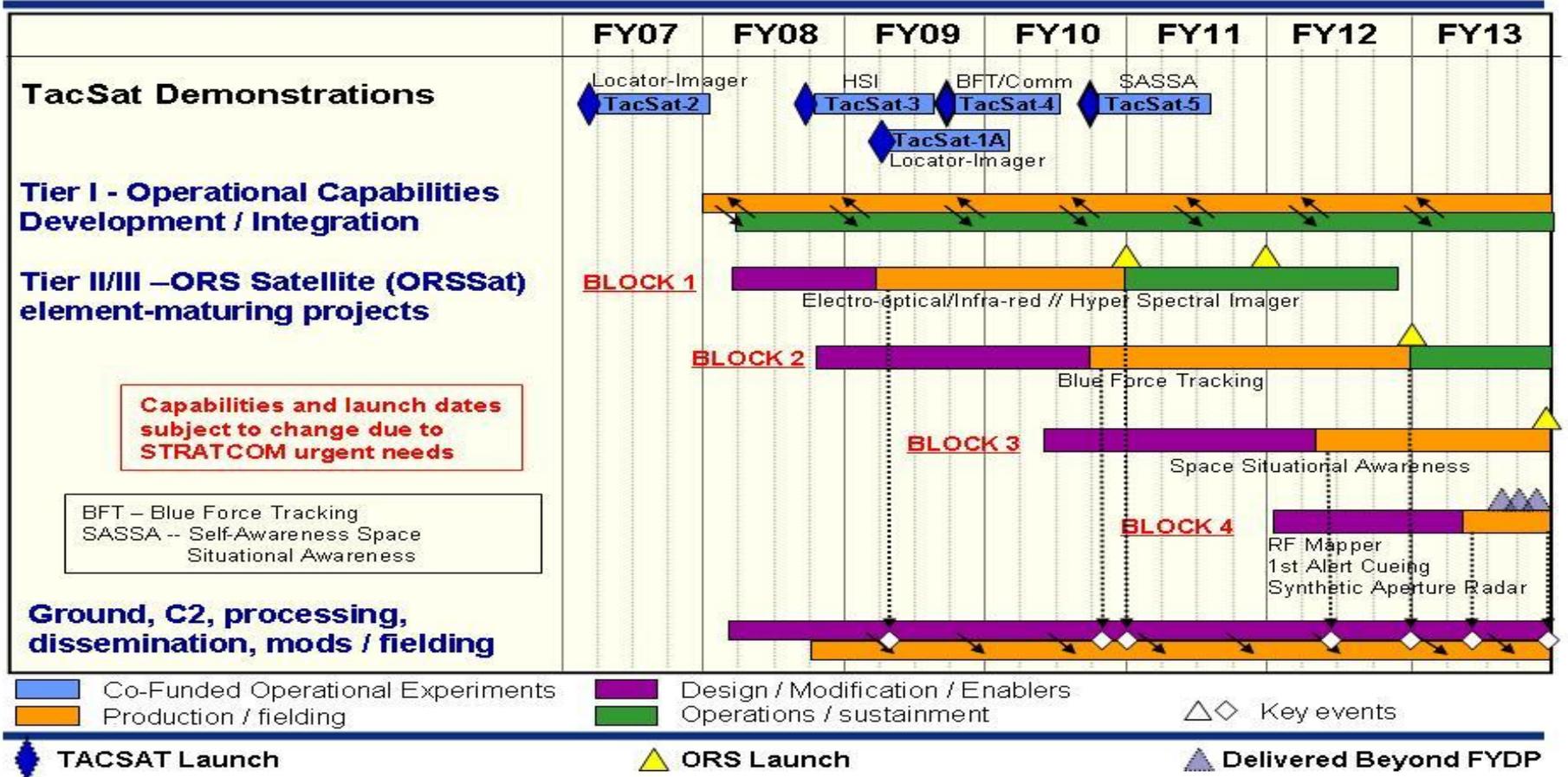
BUDGET ACTIVITY
04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE
0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE
A015 ORS COMMON SERVICES



Operationally Responsive Space Schedule



UNCLASSIFIED

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| Exhibit R-4a, RDT&E Schedule Detail | DATE February 2008 |
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| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | PROJECT NUMBER AND TITLE A015 ORS COMMON SERVICES |
|---|--|--|

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|--|----------------|----------------|----------------|
| (U) <u>Schedule Profile</u> | | | |
| (U) Tactical Satellite (TacSat)-2 Launch | 1Q | | |
| (U) TacSat-3 Launch | | 4Q | |
| (U) Operational ORS Sat Development begins | | 2Q | |
| (U) ORS Ground, Command and Control development begins | | 2Q | |
| (U) TacSat-4 Launch | | | 4Q |

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

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|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---|---------------------|---|--|
| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | | | | | | | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | | PROJECT NUMBER AND TITLE A016 Operationally Responsive Lift | |
| Cost (\$ in Millions) | FY 2007 Actual | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | Cost to Complete | Total | |
| A016 Operationally Responsive Lift | 19.597 | 1.805 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD | |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

(U) **A. Mission Description and Budget Item Justification**
 The Operationally Responsive Space (ORS) program is the rapid reaction combination of payloads, launch systems, and ranges; optimized to provide surge operations, reconstitution capability, and exploitation of new technologies. This encompasses the spacelift missions of delivering payloads to, or from, mission orbit and changing the orbit of existing systems to better satisfy new mission requirements.

| (U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u> | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|---|----------------|----------------|----------------|
| (U) Continue Small Launch Vehicle (SLV) system design and development, systems engineering and engine static firings for AirLaunch Phase II | 5.600 | | |
| (U) Perform analysis, costing and assess utility for operationally responsive space concepts/requirements and Program Management support | 3.397 | | |
| (U) TacSat-3&4 launch | 3.100 | 1.805 | |
| (U) Classified effort (per FY 2007 Congressional direction) | 7.500 | | |
| (U) Total Cost | 19.597 | 1.805 | 0.000 |

| (U) <u>C. Other Program Funding Summary (\$ in Millions)</u> | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</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>Complete</u> | |
| (U) Defensewide RDT&E, DARPA, PE 0603285E, Falcon (R-140) | 4.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 4.000 |

(U) **D. Acquisition Strategy**
 SLV efforts were executed by the joint AF-DARPA Program Office.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | | | | PROJECT NUMBER AND TITLE | | | |
|--|-----------------------------------|---|------------------------------------|--|---------------------------|---------------------|---------------------------|---------------------|---|-------------------------|-------------------|---------------------------------|
| 04 Advanced Component Development and Prototypes (ACD&P) | | | | 0604857F Operationally Responsive Space | | | | | A016 Operationally Responsive Lift | | | |
| (U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions) | <u>Contract Method & Type</u> | <u>Performing Activity & Location</u> | <u>Total Prior to FY 2007 Cost</u> | <u>FY 2007 Cost</u> | <u>FY 2007 Award Date</u> | <u>FY 2008 Cost</u> | <u>FY 2008 Award Date</u> | <u>FY 2009 Cost</u> | <u>FY 2009 Award Date</u> | <u>Cost to Complete</u> | <u>Total Cost</u> | <u>Target Value of Contract</u> |
| (U) <u>Product Development</u> Falcon Phase II contractors: | OTA | Air Launch, Kirkland, WA | | 5.600 | Apr-07 | | | | | 0.000 | 5.600 | 5.600 |
| Classified effort (per FY 2007 congressional direction) | TBD | TBD | | 7.500 | Feb-07 | | | | | | 7.500 | 7.500 |
| Subtotal Product Development | | | 0.000 | 13.100 | | 0.000 | | 0.000 | | 0.000 | 13.100 | 13.100 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Support</u> | | | | | | | | | | | 0.000 | 0.000 |
| Subtotal Support | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Test & Evaluation</u> TacSat-3&4 launch | C-FPI | Orbital, Chandler, AZ | | 3.100 | May-06 | 1.805 | Oct-07 | | | Continuing | TBD | TBD |
| Subtotal Test & Evaluation | | | 0.000 | 3.100 | | 1.805 | | 0.000 | | Continuing | TBD | TBD |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Management</u> Perform analysis and assess alternative concepts/requirements & program support | various | various | | 3.397 | Dec-06 | | | | | 0.000 | 3.397 | TBD |
| Subtotal Management | | | 0.000 | 3.397 | | 0.000 | | 0.000 | | 0.000 | 3.397 | TBD |
| Remarks: | | | | | | | | | | | | |
| (U) Total Cost | | | 0.000 | 19.597 | | 1.805 | | 0.000 | | Continuing | TBD | TBD |

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2008

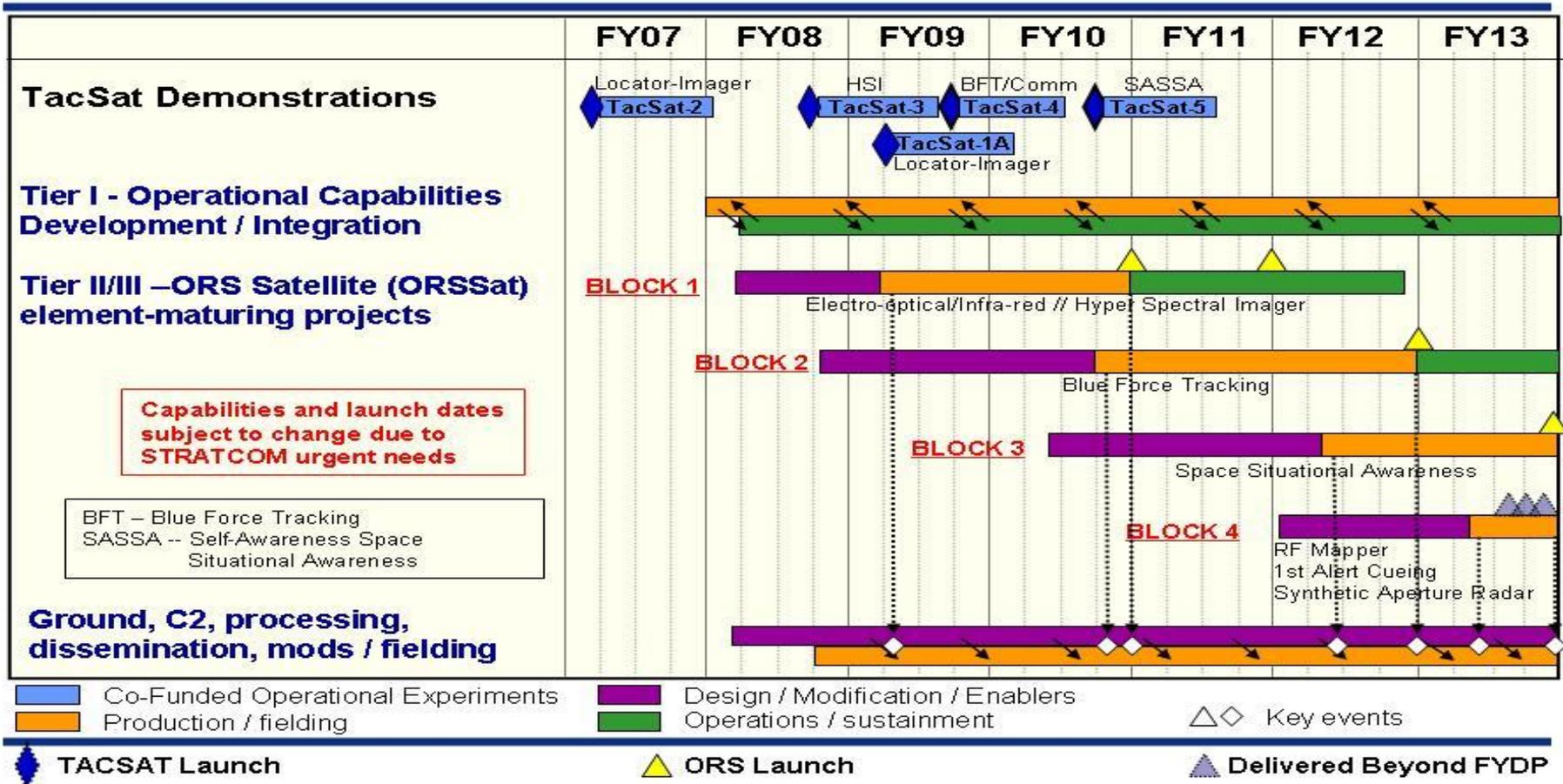
BUDGET ACTIVITY
04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE
0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE
A016 Operationally Responsive Lift



Operationally Responsive Space Schedule



UNCLASSIFIED

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|--|------------------------------|
| Exhibit R-4a, RDT&E Schedule Detail | DATE February 2008 |
|--|------------------------------|

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| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | PROJECT NUMBER AND TITLE A016 Operationally Responsive Lift |
|---|--|--|

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|-------------------------------------|----------------|----------------|----------------|
| (U) <u>Schedule Profile</u> | | | |
| (U) Space-X Falcon-1 Demo Flight #2 | 2Q | | |
| (U) Space-X Falcon-1 Demo Flight #3 | | 3Q | |
| (U) TacSat-3 Launch | | 4Q | |
| (U) TacSat-4 Launch | | | 4Q |

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

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|--|-------------------|---------------------|---------------------|---|---------------------|---------------------|---|---------------------|-------|
| BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P) | | | | PE NUMBER AND TITLE 0604857F Operationally Responsive Space | | | PROJECT NUMBER AND TITLE A020 AF-funded ORSSats | | |
| Cost (\$ in Millions) | FY 2007 Actual | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | Cost to Complete | Total |
| A020 AF-funded ORSSats | 0.000 | 0.000 | 97.232 | 104.394 | 86.498 | 86.383 | 117.984 | Continuing | TBD |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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

AF-funded Operational Responsive Space satellites (ORS Sats) will be optimized for prioritized theater use and/or surge, augmentation and replenishment of more traditional space capabilities. Current Concepts of Operation (CONOPS) drive the need for satellites featuring high degrees of modularity, standard interface vehicles, and the use of plug and play payloads and buses. Responsive satellites will be capable of rapid satellite initialization and be networked with other national security space, air and surface systems.

ORS Sats will provide a broad range of capabilities directly supporting warfighter needs. Potential missions include communications, data exfiltration, blue-force situational awareness, positioning, navigation and timing, weather, and battlefield intelligence, surveillance and reconnaissance. This funding is primarily for TacSats 4 and 5 and ORS Sats 1 through 7 to mature the ORS enabling elements and satisfy high priority needs for augmentation and reconstitution, such as Space Situational Awareness, Counterspace, Intelligence-Surveillance-Reconnaissance, and Missile Warning. The baseline capabilities planned for TacSats 4 and 5 and ORS Sats 1 through 7, as shown in Exhibit 4 (schedule), were selected to systematically mature the ORS enabling elements to fully meet the USSTRATCOM-specified responsiveness timelines and 2007 NDAA cost targets by 2015. When ORS-appropriate USSTRATCOM urgent needs arise during execution year, programmed ORS projects may be modified or delayed to meet those urgent needs.

ORS Satellite Blocks include satellite vehicle(s), launch, integration, operational experimentation, and interim transitions from ORS derived solutions to operational capabilities. Each block also includes enabler investments to improve the responsiveness and lower the cost of designing, fabricating, launching, and operating ORS space capabilities. These blocks culminate in on-orbit capabilities ready for operational experimentation and, when desired, transition to enduring operations.

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

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
|---|----------------|----------------|----------------|
| (U) TacSat 4&5 launch vehicle, range operations, and related launch support | | | 24.700 |
| (U) ORS Sat block 1 and enabling elements | | | 41.600 |
| (U) ORS Sat block 2 and enabling elements | | | 11.900 |
| (U) Operational launch vehicles buy | | | 15.000 |
| (U) Tier 1 operational capabilities, development, and integration | | | 4.032 |
| (U) Total Cost | 0.000 | 0.000 | 97.232 |

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

| | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</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>Complete</u> | |
| (U) N/A | | | | | | | | | |

Exhibit R-2a, RDT&E Project Justification

DATE

February 2008

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604857F Operationally Responsive
Space

PROJECT NUMBER AND TITLE

A020 AF-funded ORSSats

(U) **D. Acquisition Strategy**

Execute through partnerships with selected existing acquisition organizations, using existing government contracts such as the Rocket Systems Launch Program's Orbital/Suborbital Program, Responsive Small Spacelift contracts, or AFRL Indefinite Delivery/Indefinite Quantity contracts when possible.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | | | | PROJECT NUMBER AND TITLE | | | |
|---|-----------------------------------|---|------------------------------------|--|---------------------------|---------------------|---------------------------|---------------------|-------------------------------|-------------------------|-------------------|---------------------------------|
| 04 Advanced Component Development and Prototypes (ACD&P) | | | | 0604857F Operationally Responsive Space | | | | | A020 AF-funded ORSSats | | | |
| (U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions) | <u>Contract Method & Type</u> | <u>Performing Activity & Location</u> | <u>Total Prior to FY 2007 Cost</u> | <u>FY 2007 Cost</u> | <u>FY 2007 Award Date</u> | <u>FY 2008 Cost</u> | <u>FY 2008 Award Date</u> | <u>FY 2009 Cost</u> | <u>FY 2009 Award Date</u> | <u>Cost to Complete</u> | <u>Total Cost</u> | <u>Target Value of Contract</u> |
| (U) <u>Product Development</u> | | | | | | | | | | | | |
| ORS Sat block 1 | | TBD | | | | | | 41.600 | Oct-09 | 72.500 | 114.100 | 114.100 |
| ORS Sat block 2 | | TBD | | | | | | 11.900 | Oct-09 | 63.600 | 75.500 | 75.500 |
| Tier-1 operational capabilities, development, and integration | | | | | | | | 4.032 | Jan-09 | Continuing | TBD | TBD |
| Subtotal Product Development | | | 0.000 | 0.000 | | 0.000 | | 57.532 | | Continuing | TBD | TBD |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Support</u> | | | | | | | | | | | 0.000 | 0.000 |
| Subtotal Support | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Test & Evaluation</u> | | | | | | | | | | | | |
| TacSat 4&5 launch vehicle, range operations, and related launch support | | | | | | | | 24.700 | | | 24.700 | 36.000 |
| ORS Launch Vehicles | | | | | | | | 15.000 | Jan-09 | 40.000 | 55.000 | 55.000 |
| Subtotal Test & Evaluation | | | 0.000 | 0.000 | | 0.000 | | 39.700 | | 40.000 | 79.700 | 91.000 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Management</u> | | | | | | | | | | | | |
| Perform analysis and assess alternative concepts/requirements & program support | | | | | | | | | | Continuing | TBD | |
| Subtotal Management | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | Continuing | TBD | 0.000 |
| Remarks: | | | | | | | | | | | | |
| (U) Total Cost | | | 0.000 | 0.000 | | 0.000 | | 97.232 | | Continuing | TBD | TBD |

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2008

BUDGET ACTIVITY
04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE
0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE
A020 AF-funded ORSSats



Operationally Responsive Space Schedule

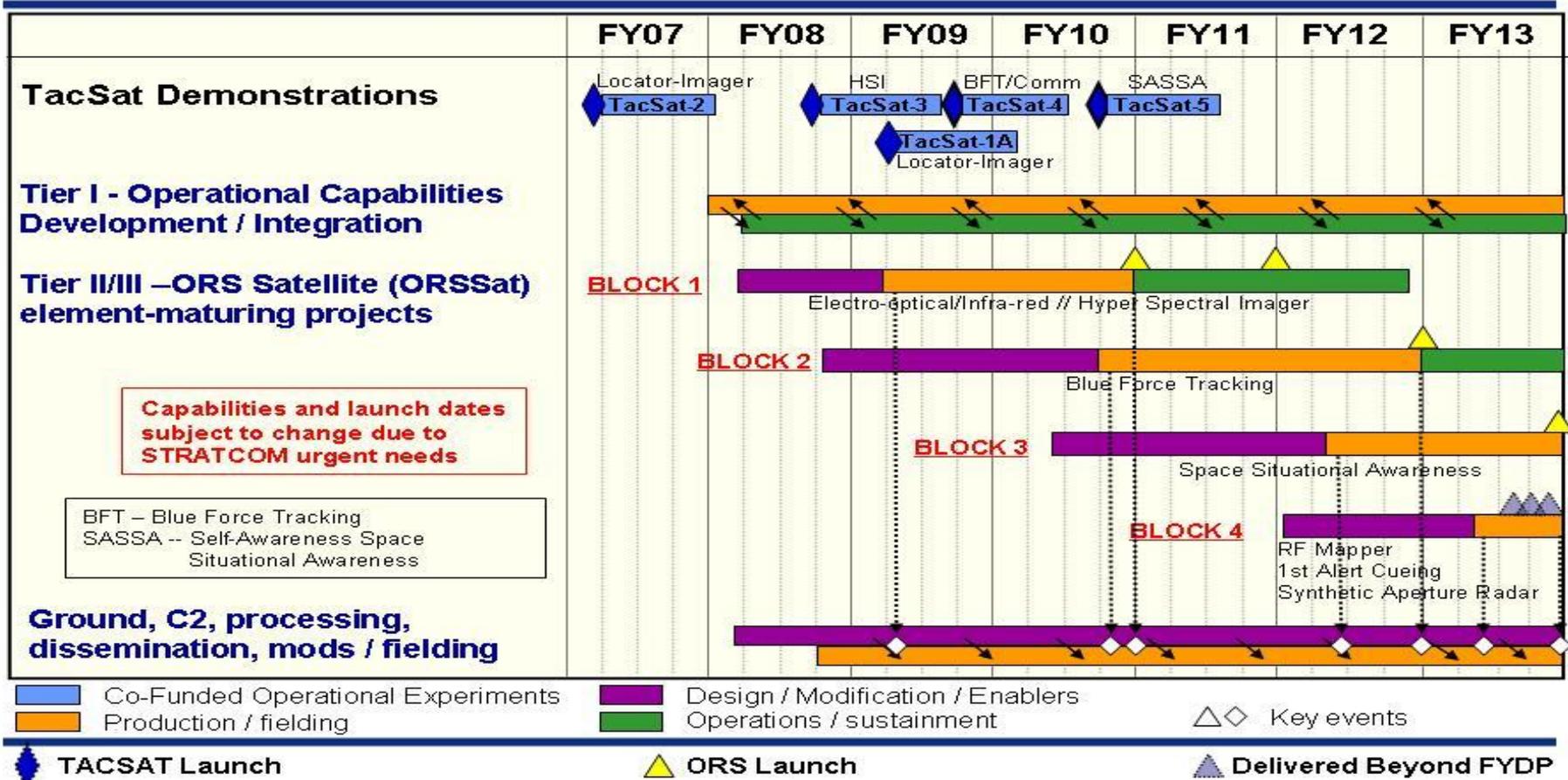


Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2008

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0604857F Operationally Responsive Space

PROJECT NUMBER AND TITLE

A020 AF-funded ORSSats

(U) Schedule Profile

FY 2007

FY 2008

FY 2009

(U) Initiate development of ORS Sat block 1 and enablers

1Q

(U) Initiate development of ORS Sat block 2 and enablers

4Q

(U) TacSat-3 launch

4Q

(U) TacSat-1A launch

2Q

(U) TacSat-4 launch

4Q