

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force	DATE: April 2013
--	-------------------------

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>					PE 0604857F: <i>Operationally Responsive Space</i>							
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.

UNCLASSIFIED

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

UNCLASSIFIED

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	

UNCLASSIFIED

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.		

UNCLASSIFIED

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

UNCLASSIFIED

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	Award Date	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

UNCLASSIFIED

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

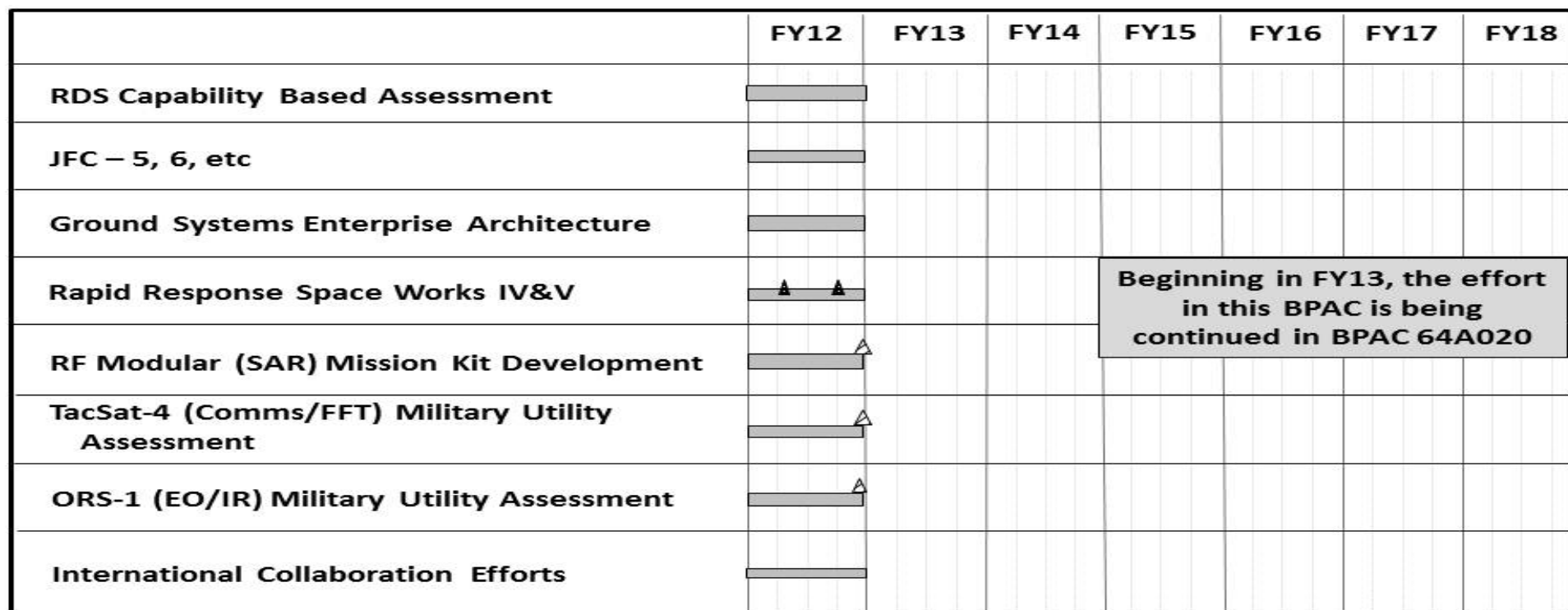
3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 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

UNCLASSIFIED

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

UNCLASSIFIED

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.												

UNCLASSIFIED

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 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.			4.498	0.000	0.000
Title: Tier-2 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.			4.874	0.000	0.000
Title: Tier-3 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.			57.214	0.000	0.000
Accomplishments/Planned Programs Subtotals			71.331	0.000	0.000
			FY 2012	FY 2013	
Congressional Add: Responsive Launch Capability			25.000	-	

UNCLASSIFIED

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>
			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.

UNCLASSIFIED

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

UNCLASSIFIED

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															

UNCLASSIFIED

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

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

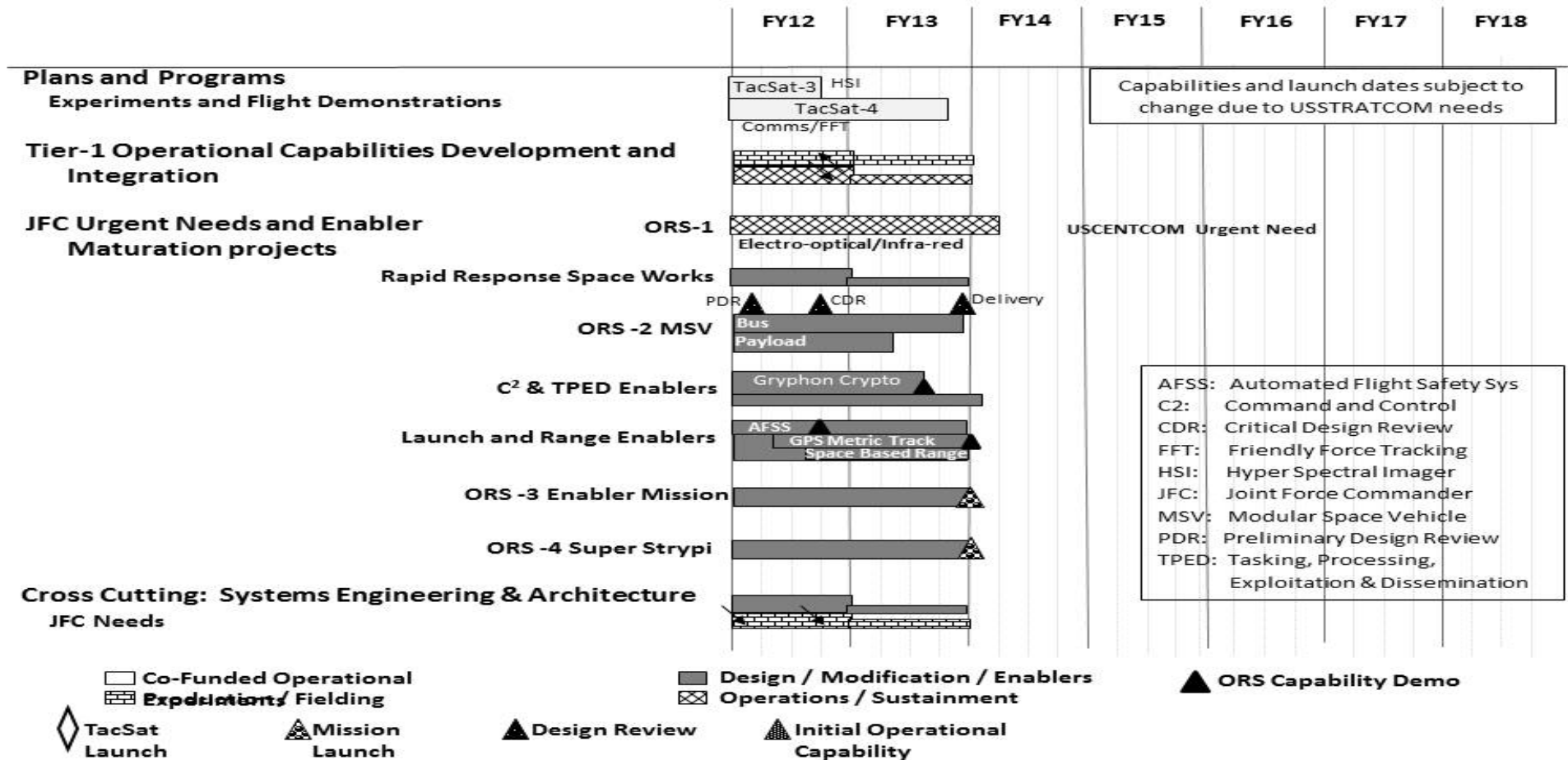
3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0604857F: Operationally Responsive Space

PROJECT

64A020: AF Funded ORSSats



UNCLASSIFIED

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