

**UNCLASSIFIED**

PE NUMBER: 0305173F  
 PE TITLE: Space & Missile Test & Evaluation Center

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>								<b>DATE</b> <b>February 2008</b>	
<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>				<b>PE NUMBER AND TITLE</b> <b>0305173F Space &amp; Missile Test &amp; Evaluation Center</b>					
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	2.526	3.070	1.985	1.660	1.685	1.718	1.752	Continuing	TBD
A014 R&D Space and Missile Operations	2.526	3.070	1.985	1.660	1.685	1.718	1.752	Continuing	TBD

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

The RDT&E efforts within this program focuses on the Multi-Mission Satellite Operations Center (MMSOC), which Research and Development (R&D) Space and Missile Operations (RDSMO) program started in FY07. The main objective of MMSOC is to transition R&D space vehicle technology with residual military utility to operational status for immediate real world support and to perform initial operational utility assessment for future acquisition programs. MMSOC is a multiple-mission operation system that uses standard software to (1) perform satellite command and control (C2) in support of launch requirements; (2) Develop/test tactics, techniques, procedures and concepts in order to conduct residual operations for R&D satellites; (3) provide a satellite C2 spiral evolution resource for RDT&E of new systems and concepts; and (4) deliver new operational flexibility for currently-flying assigned satellites. MMSOC leverages demonstrated RDT&E experience to expand the capabilities and proven technologies currently in use by other RDSMO facilities. MMSOC also supports all RDSMO-sustained space vehicles through existing resources. In addition, it adds the capability to rapidly support operational systems.

RDSMO develops and acquires systems to: operate experimental and demonstration satellites; operate fixed and deployable satellite ground systems; perform satellite compatibility testing; act as the focal point and center of expertise for DoD experimental and demonstration space and missile operations; support space and missile R&D; and conduct/support experimental/demonstration space and missile Developmental Test and Evaluation (DT&E) and Initial Operational Test and Evaluation (IOT&E) activities. It consists of (1) the RDT&E Support Complex (RSC) at Kirtland AFB, NM which operates R&D satellites; (2) the Center for Research Support (CERES) at Schriever AFB, CO which operates residual satellites and serves as a test bed; (3) the Camp Parks Communication Annex at Dublin, CA which provides multi-band Telemetry Tracking and Commanding (TT&C), calibration and on-orbit testing; (4) the Test, Operations, and Programs at Kirtland AFB which is the focal point for tests, plans, programs, and policy and (5) the deployable test systems, based at Kirtland AFB, NM which deploys mobile antennas worldwide to support space RDT&E activities.

This effort is in Budget Activity 7, Operational System Development, and it supports research and development of space systems.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	4.657	3.089	2.014
(U) Current PBR/President's Budget	2.526	3.070	1.985
(U) Total Adjustments	-2.131		
(U) Congressional Program Reductions		-0.190	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-2.000		
SBIR/STTR Transfer	-0.131		
(U) <u>Significant Program Changes:</u>			

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY <b>07 Operational System Development</b>				PE NUMBER AND TITLE <b>0305173F Space &amp; Missile Test &amp; Evaluation Center</b>			PROJECT NUMBER AND TITLE <b>A014 R&amp;D Space and Missile Operations</b>		
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
A014 R&D Space and Missile Operations	2.526	3.070	1.985	1.660	1.685	1.718	1.752	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

The RDT&E efforts within this program focuses on the Multi-Mission Satellite Operations Center (MMSOC), which Research and Development (R&D) Space and Missile Operations (RDSMO) program started in FY07. The main objective of MMSOC is to transition R&D space vehicle technology with residual military utility to operational status for immediate real world support and to perform initial operational utility assessment for future acquisition programs. MMSOC is a multiple-mission operation system that uses standard software to (1) perform satellite command and control (C2) in support of launch requirements; (2) Develop/test tactics, techniques, procedures and concepts in order to conduct residual operations for R&D satellites; (3) provide a satellite C2 spiral evolution resource for RDT&E of new systems and concepts; and (4) deliver new operational flexibility for currently-flying assigned satellites. MMSOC leverages demonstrated RDT&E experience to expand the capabilities and proven technologies currently in use by other RDSMO facilities. MMSOC also supports all RDSMO-sustained space vehicles through existing resources. In addition, it adds the capability to rapidly support operational systems.

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This effort is in Budget Activity 7, Operational System Development, and it supports research and development of space systems.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Multi-Mission Satellite Operations Center (MMSOC) development/integration	2.526	3.070	1.985
(U) Total Cost	2.526	3.070	1.985

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

	<u>FY 2007</u> <u>Actual</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>Cost to Complete</u>	<u>Total Cost</u>
(U) OPAF, Electronics & Telecom Equipment (BA 03, PE	3.741	7.714	10.045	3.498	3.550	3.621	3.692	Continuing	TBD

## Exhibit R-2a, RDT&amp;E Project Justification

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

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(U) D. Acquisition Strategy

The AF uses the competitively-awarded Engineering, Development, and Sustainment (EDS) Contract, managed by Space and Missile System Center, Space Development & Test Wing (formerly Detachment 12), to modernize and sustain RDSMO on a non-interference basis as it continues to support RDT&E and other designated users. The AF will use the competitively-awarded EDS Follow-on Contract to develop MMSOC.

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**Exhibit R-3, RDT&E Project Cost Analysis**

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<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; 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> Engineering, Development, and Sustainment (EDS) Follow-on Contract	C/CPAF	TBD/Kirtland, Schreiver AFB		0.966	Dec-06	1.469	Nov-07	0.845	Oct-08	Continuing	TBD	TBD	
Subtotal Product Development			0.000	0.966		1.469		0.845		Continuing	TBD	TBD	
Remarks:													
<u>(U) Support</u> Program Support (SETA, SPO ops)	Various	Various		1.006	Dec-06	1.301	Dec-07	0.840	Dec-08	Continuing	TBD	TBD	
Subtotal Support			0.000	1.006		1.301		0.840		Continuing	TBD	TBD	
Remarks:													
<u>(U) Product Development</u> System Test and Engineering (STEC) Contract	C/CPAF	Kirtland, AFB		0.554	Dec-06	0.300	Nov-07	0.300	Oct-08	Continuing	TBD		
Subtotal Product Development			0.000	0.554		0.300		0.300		Continuing	TBD	0.000	
Remarks:													
<u>(U) Total Cost</u>			0.000	2.526		3.070		1.985		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

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PROJECT NUMBER AND TITLE  
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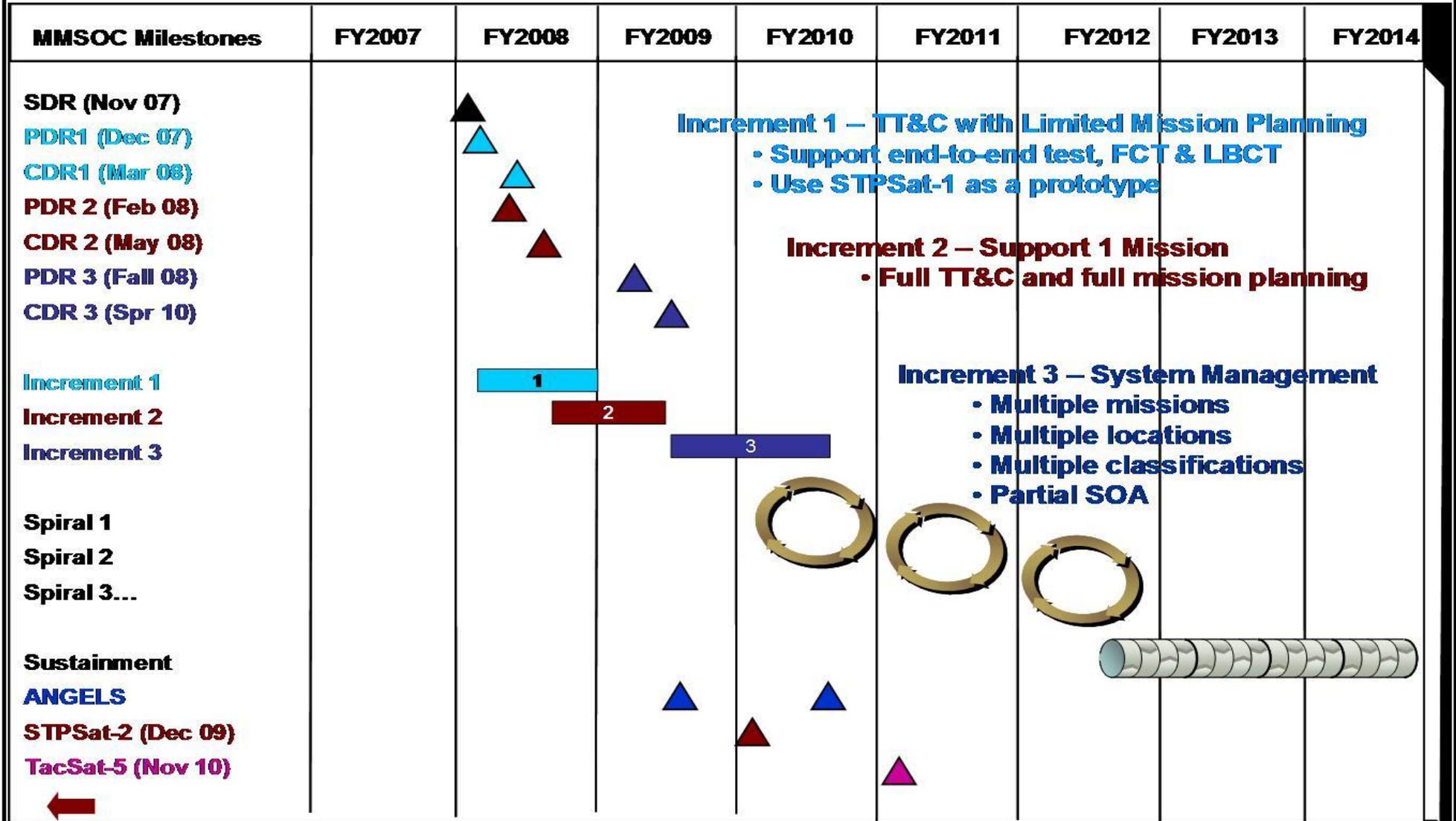


Exhibit R-4a, RDT&E Schedule Detail

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PROJECT NUMBER AND TITLE

A014 R&D Space and Missile Operations

(U) Schedule Profile

FY 2007

FY 2008

FY 2009

(U) SDR

1Q

(U) Increment 1-TT&C with Limited Mission Planning

4Q

(U) Increment 2-Support 1 Mission

2Q