

**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 2007</b>
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<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>
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	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	0.000	4.657	3.089	2.014	1.685	1.710	1.743	1.778	Continuing	TBD
A014 R&D Space and Missile Operations	0.000	4.657	3.089	2.014	1.685	1.710	1.743	1.778	Continuing	TBD

Note: In FY 2007, all funding from BPAC 4992 (PE# 0305173F) was transferred to new BPAC A014 - this rename better reflects focus of efforts.

**(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 FY 2007. 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) conduct residual operations capability for R&D satellites in order to develop/test tactics, techniques, procedures and concepts; (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.

The RDSMO Program Element also contains O&M and OPAF funds. 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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	0.000	4.675	3.060	1.990
(U) Current PBR/President's Budget	0.000	4.657	3.089	2.014
(U) Total Adjustments	0.000			
(U) Congressional Program Reductions				
Congressional Rescissions		0.018		
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer				
(U) <u>Significant Program Changes:</u>				
FY 2007 New Start Effort (MMSOC)				

**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 2006 Actual	FY 2007 Estimate	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	0.000	4.657	3.089	2.014	1.685	1.710	1.743	1.778	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

Note: In FY 2007, all funding from BPAC 4992 (PE# 0305173F) was transferred to new BPAC A014 - this re-name better reflects focus of efforts.

**(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 FY 2007. 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) conduct residual operations capability for R&D satellites in order to develop/test tactics, techniques, procedures and concepts; (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.

The RDSMO Program Element also contains O&M and OPAF funds. 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.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Multi-Mission Satellite Operations Center (MMSOC) development/integration	0.000	4.657	3.089	2.014
(U) Total Cost	0.000	4.657	3.089	2.014

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) OPAF, Electronics & Telecom Equipment (BA 03, PE 0305173F, P-48)	0.263	7.042	7.766	10.183	3.545	3.600	3.671	3.743	Continuing	TBD

(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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BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT NUMBER AND TITLE				
<b>07 Operational System Development</b>			<b>0305173F Space &amp; Missile Test &amp; Evaluation Center</b>								<b>A014 R&amp;D Space and Missile Operations</b>				
<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 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</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		0.000		2.720	Dec-06	1.788	Dec-07	1.168	Dec-08	Continuing	TBD	TBD	
Subtotal Product Development			0.000	0.000		2.720		1.788		1.168		Continuing	TBD	TBD	
Remarks:															
<u>(U) Support</u>															
Program Support (SETA, SPO ops)	Various	Various		0.000		1.937	Dec-06	1.301	Dec-07	0.846	Dec-08	Continuing	TBD	TBD	
Subtotal Support			0.000	0.000		1.937		1.301		0.846		Continuing	TBD	TBD	
Remarks:															
<u>(U) Total Cost</u>			0.000	0.000		4.657		3.089		2.014		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

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07 Operational System Development

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

PROJECT NUMBER AND TITLE  
A014 R&D Space and Missile Operations



# MMSOC Schedule

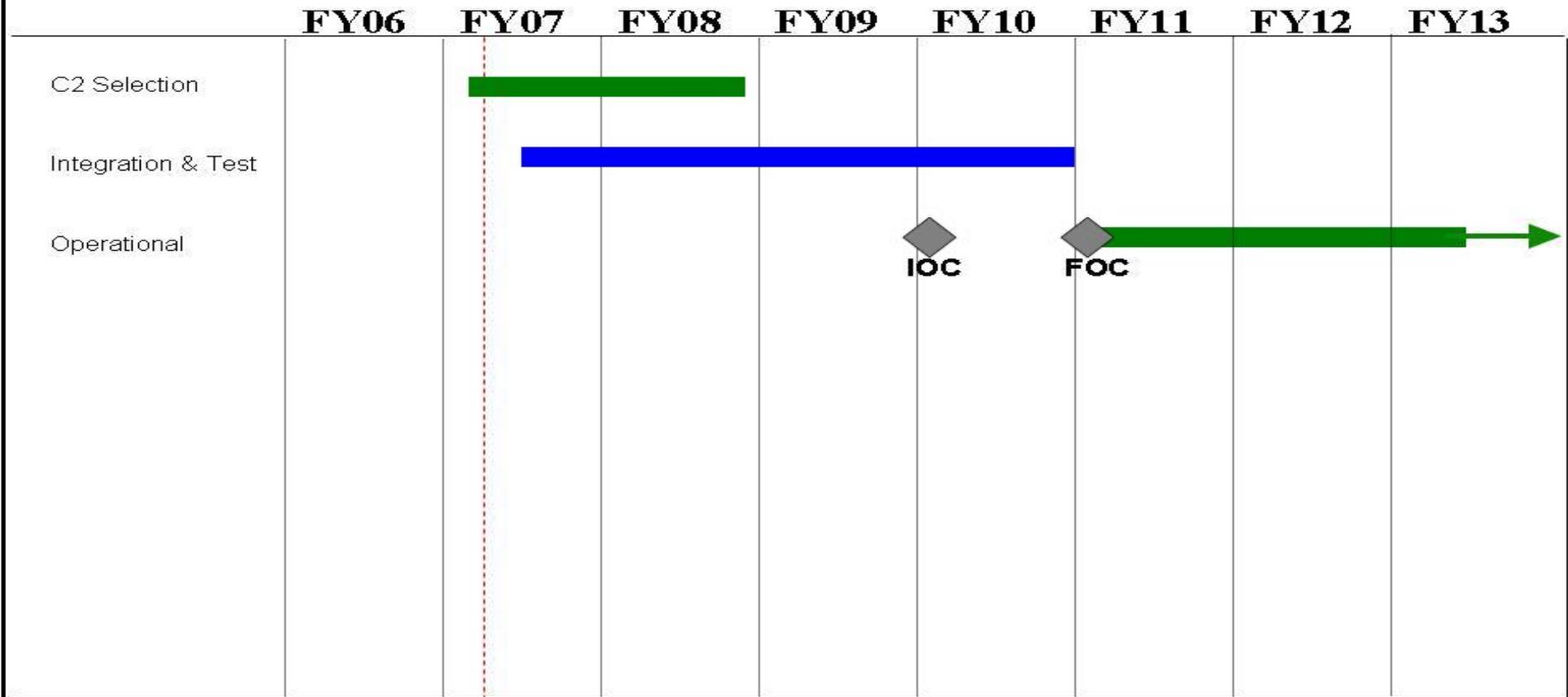


Exhibit R-4a, RDT&E Schedule Detail

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07 Operational System Development

PE NUMBER AND TITLE

0305173F Space & Missile Test & Evaluation Center

PROJECT NUMBER AND TITLE

A014 R&D Space and Missile Operations

(U) Schedule Profile

FY 2006

FY 2007

FY 2008

FY 2009

(U) Begin MMSOC Design

1Q

(U) MMSOC Command and Control System Selection

2Q

(U) Begin MMSOC Integration

3Q