

UNCLASSIFIED

PE NUMBER: 0305182F
 PE TITLE: Spacelift Range System

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305182F Spacelift Range System
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	25.089	12.322	9.957	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
4137 Launch and Test Range System (LTRS) Modernization	25.089	12.322	9.957	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The Eastern Range (ER) at Patrick Air Force Base (AFB)/Cape Canaveral Air Force Station, FL, and the Western Range (WR) at Vandenberg AFB, CA, make up the Spacelift Range System (SLRS). They provide tracking, telemetry, communications, flight analysis, and other capabilities to safely conduct: national security, civil, and commercial spacelift operations; ballistic missile and missile defense evaluations; and aeronautical and guided weapons tests. Decreasing reliability of aging range systems adds risk. It forces the AF to use redundant assets during launches to ensure range availability, increasing operations and maintenance costs.

The AF is addressing range deficiencies through two contracts. First, the Range Standardization and Automation (RSA) Phase IIA contract modernizes the control/display and communications segments at both ranges. Systems being modernized include: weather; communications; planning and scheduling; and flight operations and analysis. Second, the SLRS Contract (SLRSC) modernizes command, telemetry, and radar instrumentation at both ranges and supports activation of the WR Operations Control Center. It also provides overall systems engineering and architecture management, and system level testing to complete the modernization effort. Some examples of the most recent deliveries on these two contracts include: automated planning and network management systems; digital telemetry systems; and optical system upgrades. RSA Phase IIA and SLRSC efforts end in FY10. The AF is awarding a separate systems engineering and integration contract in FY09 and a follow-on modernization/product improvement contract in FY10.

These upgrades to fielded systems are categorized as Budget Activity 7, Operational Systems Development.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	27.095	12.376	10.157
(U) Current PBR/President's Budget	25.089	12.322	9.957
(U) Total Adjustments	-2.006	-0.054	
(U) Congressional Program Reductions		-0.021	
Congressional Rescissions		-0.033	
Congressional Increases			
Reprogrammings	-2.006		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
FY08: AF transferred \$2M to support higher priority.			

Exhibit R-2a, RDT&E Project Justification	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305182F Spacelift Range System	PROJECT NUMBER AND TITLE 4137 Launch and Test Range System (LTRS) Modernization
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
4137 Launch and Test Range System (LTRS) Modernization	25.089	12.322	9.957	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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These upgrades to fielded systems are categorized as Budget Activity 7, Operational Systems Development.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Completed RSA Phase IIA development, test, and evaluation of communications; weather; and flight operations/analysis systems in FY08.	13.182		
(U) Complete SLRSC instrumentation modernization. Complete development, test, and evaluation of command destruct, telemetry, and radar instrumentation and local control interfaces. Finish activation of WR Operations Control Center.	11.407	11.576	7.057
(U) Initiate follow on contract in FY10 to transition/continue modernization/product improvement of instrumentation, control/display, and communications systems.			0.500
(U) Continue separate systems engineering and integration (SE&I) contract initiated in FY09. Continues SE&I efforts previously accomplished under RSA Phase IIA and SLRSC. Provides separate SE&I to support completion of SLRSC and transition to follow-on modernization/product improvement contract.		0.200	2.000
(U) Provide program support, to include System Program Office operations, SETA, and FFRDC.	0.500	0.546	0.400
(U) Total Cost	25.089	12.322	9.957

Exhibit R-2a, RDT&E Project Justification	DATE May 2009
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(U) C. Other Program Funding Summary (\$ in Millions)

	<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>FY 2014</u>	<u>FY 2015</u>	<u>Cost to Complete</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>								
(U) OPAF (Spacelift Range System Space, P-65, BA 03)	130.536	101.303	102.645						Continuing	TBD
(U) OPAF (Spares and Repair Parts, P-103, BA 05)	2.912	2.948	2.957						Continuing	TBD

(U) D. Acquisition Strategy

The AF is using two competitively awarded, complementary contracts, managed by the Space and Missile Systems Center, to modernize the ranges on a minimal-interference basis as they continue to support operational launches and tests. The AF will competitively award a new systems engineering and integration contract in FY09 and a follow-on modernization/improvement contract in FY10 to continue modernization and improvement efforts.

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

May 2009

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
07 Operational System Development				0305182F Spacelift Range System					4137 Launch and Test Range System (LTRS) Modernization				
(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 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u> RSA Phase IIA	C/CPAF	Lockheed Martin, Santa Maria, CA	322.522	13.182	Oct-07					0.000	335.704	349.469	
SLRSC	C/CPAF	ITT Industries, Cape Canaveral, FL	144.901	11.407	Oct-07	11.576	Oct-08	7.057	Oct-09	Continuing	TBD	TBD	
Follow-on modernization/product improvement contract	C/CPIF	TBD						0.500	Aug-10	Continuing	TBD	TBD	
Separate systems engineering and integration contract	C/CPIF	TBD				0.200	May-09	2.000	Oct-09	Continuing	TBD	TBD	
Subtotal Product Development			467.423	24.589		11.776		9.557		Continuing	TBD	TBD	
Remarks:													
(U) <u>Support</u> SPO Program Support (FFRDC, SETA, SPO Ops)	Various	Various	35.871	0.500	Oct-07	0.546	Oct-08	0.400	Oct-09	Continuing	TBD	TBD	
California Space Infrastructure Program	Various	Various	34.353							Continuing	TBD	TBD	
Subtotal Support			70.224	0.500		0.546		0.400		Continuing	TBD	TBD	
Remarks:													
(U) Total Cost			537.647	25.089		12.322		9.957		Continuing	TBD	TBD	

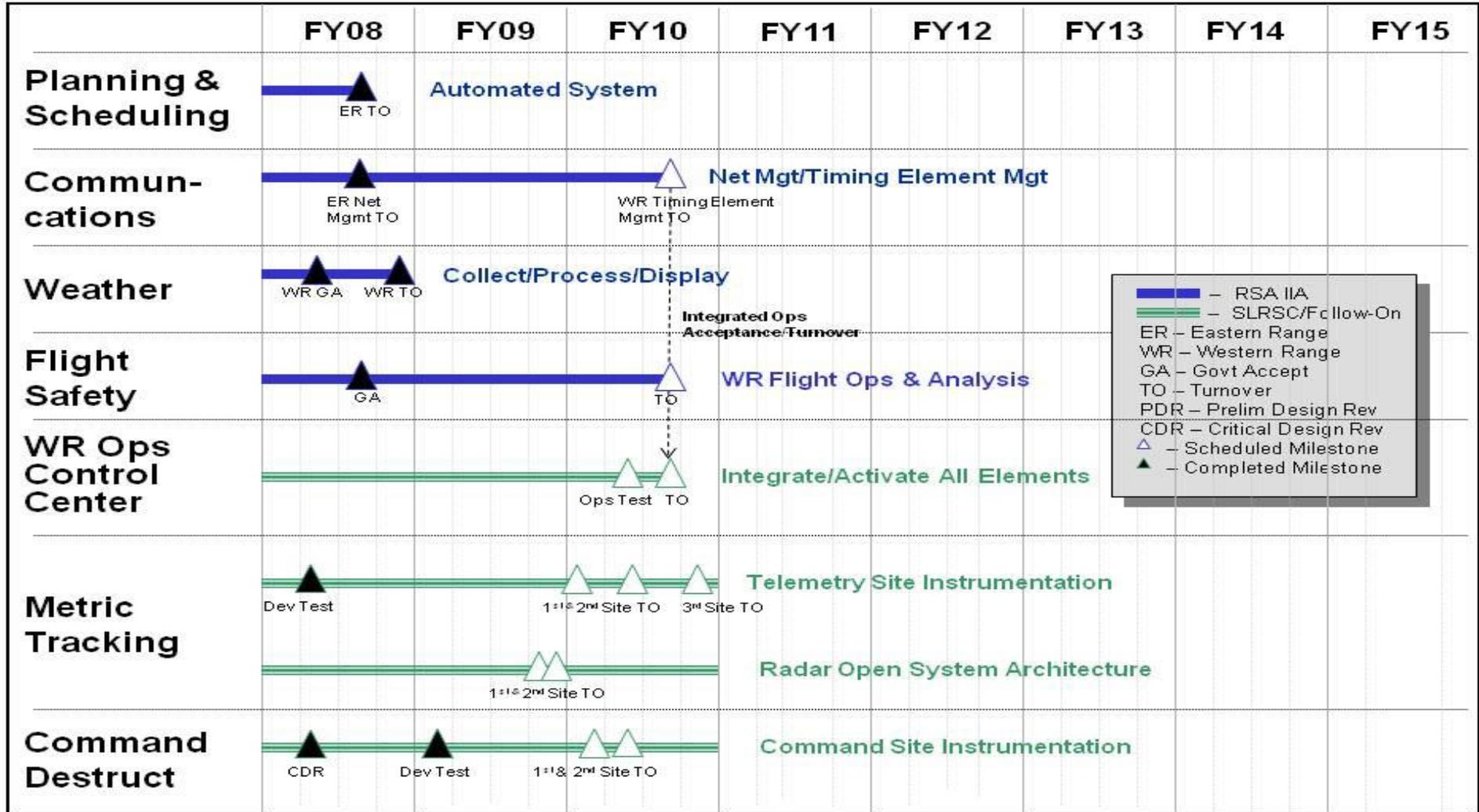
Exhibit R-4, RDT&E Schedule Profile

DATE
May 2009

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0305182F Spacelift Range System

PROJECT NUMBER AND TITLE
4137 Launch and Test Range System (LTRS) Modernization



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Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305182F Spacelift Range System	PROJECT NUMBER AND TITLE 4137 Launch and Test Range System (LTRS) Modernization
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(U) <u>Schedule Profile</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) RSA Phase IIA			
(U) - Planning & Scheduling ER Operational (Ops) Turnover	3Q		
(U) - Communications (Net Mgmt System) ER Final Ops Turnover	3Q		
(U) - Communications (Timing Element Mgmt System) WR Final Ops Turnover			3Q
(U) - Weather WR Final Govt Acceptance	2Q		
(U) - Weather WR Final Ops Turnover	4Q		
(U) - Flight Safety (WR Flight Ops & Analysis) Govt Acceptance	3Q		
(U) - Flight Safety (WR Flight Ops & Analysis) Ops Turnover			3Q
(U) SLRS Contract/Follow-On Contract			
(U) - WR Ops Control Center (WROCC) Operational Test Complete			2Q
(U) - WR Ops Control Center (WROCC) Final Turnover			3Q
(U) - Metric Tracking (Telemetry) Developmental Test Complete	2Q		
(U) - Metric Tracking (Telemetry) 1st Site Turnover			1Q
(U) - Metric Tracking (Telemetry) 2nd Site Turnover			2Q
(U) - Metric Tracking (Telemetry) 3rd Site Turnover			4Q
(U) - Metric Tracking (Radar Open System Architecture) 1st Site Turnover		4Q	
(U) - Metric Tracking (Radar Open System Architecture) 2nd Site Turnover		4Q	
(U) - Command Destruct (Vehicle Uplink) Critical Design Review	2Q		
(U) - Command Destruct (Vehicle Uplink) Developmental Test Complete		1Q	
(U) - Command Destruct (Vehicle Uplink) 1st Site Turnover			1Q
(U) - Command Destruct (Vehicle Uplink) 2nd Site Turnover			2Q