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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 Air Force **DATE:** February 2011

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0305182F: <i>Spacelift Range System</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	10.973	9.933	9.940	-	9.940	9.976	10.157	10.307	10.430	Continuing	Continuing
674137: <i>Launch and Test Range System (LTRS) Modernization</i>	10.973	9.933	9.940	-	9.940	9.976	10.157	10.307	10.430	Continuing	Continuing

**Note**

The program funding includes overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.063M in FY12.

**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), also known as the Launch and Test Range System (LTRS). The ER and WR provide tracking, telemetry, communications, flight safety, and other capabilities to enable: national security, civil, and commercial space launches; ballistic missile and missile defense evaluations; and aeronautical and guided weapons tests. Decreasing reliability of aging range systems forces the AF to use redundant assets to ensure range availability, increasing operations and maintenance costs. The AF will address range deficiencies in FY12 via multiple contracts. The SLRS Contract (SLRSC) will complete modernization of several command, telemetry, and radar instrumentation sites; and provide depot level maintenance and logistics support until the follow-on contract takes over. As a follow-on to SLRSC, the AF will award a consolidated modernization, sustainment, operations, and maintenance contract, the LTRS Integrated Support Contract (LISC) in early FY12 (delayed from FY11 for extended contract preparations). The separate Systems Engineering and Integration (SE&I) contract will continue in FY12 to provide independent systems engineering and integration support complementing the SLRSC and LISC. Planned communications system upgrades will comply with OSD policies and standards for net centricity, global information grid interface, information assurance, and test/training enabling architecture. These upgrades to fielded systems are categorized as Budget Activity 7, Operational Systems Development. Associated Other Procurement, AF, funding is in Budget Activity 03, Electronics and Telecommunications Equipment, Item No. 44, Program Element 0305182F, Spacelift Range System Space.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	9.915	9.933	10.061	-	10.061
Current President's Budget	10.973	9.933	9.940	-	9.940
Total Adjustments	1.058	-	-0.121	-	-0.121
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	1.100	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.042	-	-0.121	-	-0.121

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System	
<p><b><u>Change Summary Explanation</u></b></p> <p>FY12: The program funding includes overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total -\$0.063M in FY12.</p> <p>FY12: -\$0.058M for higher priorities.</p> <p>Total FY12 Changes: -\$0.121M</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System				PROJECT 674137: Launch and Test Range System (LTRS) Modernization			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
674137: Launch and Test Range System (LTRS) Modernization	10.973	9.933	9.940	-	9.940	9.976	10.157	10.307	10.430	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
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), also known as the Launch and Test Range System (LTRS). The ER and WR provide tracking, telemetry, communications, flight safety, and other capabilities to enable: national security, civil, and commercial space launches; ballistic missile and missile defense evaluations; and aeronautical and guided weapons tests. Decreasing reliability of aging range systems forces the AF to use redundant assets to ensure range availability, increasing operations and maintenance costs. The AF will address range deficiencies in FY12 via multiple contracts. The SLRS Contract (SLRSC) will complete modernization of several command, telemetry, and radar instrumentation sites; and provide depot level maintenance and logistics support until the follow-on contract takes over. As a follow-on to SLRSC, the AF will award a consolidated modernization, sustainment, operations, and maintenance contract, the LTRS Integrated Support Contract (LISC) in early FY12 (delayed from FY11 for extended contract preparations). The separate Systems Engineering and Integration (SE&I) contract will continue in FY12 to provide independent systems engineering and integration support complementing the SLRSC and LISC. Planned communications system upgrades will comply with OSD policies and standards for net centricity, global information grid interface, information assurance, and test/training enabling architecture. These upgrades to fielded systems are categorized as Budget Activity 7, Operational Systems Development. Associated Other Procurement, AF, funding is in Budget Activity 03, Electronics and Telecommunications Equipment, Item No. 44, Program Element 0305182F, Spacelift Range System Space.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Range Modernization							8.746	6.603	6.625	-	6.625
Description: SLRSC and follow-on LISC conduct developmental testing, system security accreditations, system integration testing, and preparations for operational testing of instrumentation systems. Transition efforts to operational testing. Initiate proof of concept efforts for communications internet protocol and service oriented architecture upgrades. Continue central command upgrades and flight termination system enhancements.											
FY 2010 Accomplishments: SLRSC continued developmental testing, system security accreditations, system integration testing, and preparations for operational testing for instrumentation systems. Transitioned efforts to operational testing.											
FY 2011 Plans:											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System	PROJECT 674137: Launch and Test Range System (LTRS) Modernization			
B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
SLRSC continues developmental testing, system security accreditations, system integration testing, and preparations for operational testing of instrumentation systems. Transition efforts to operational testing. Upgrades central command and enhances flight termination systems.  <b>FY 2012 Base Plans:</b> SLRSC will complete developmental testing, system security accreditations, and system integration testing under SLRSC to transition command destruct, radar, and telemetry systems to operational testing. Follow-on LISC will begin or continue integration and developmental testing leading up to operational testing for additional command destruct and telemetry instrumentation. Initiate proof of concept and design for internet protocol/ service oriented architecture. Continue central command upgrades and flight termination system enhancements.  <b>FY 2012 OCO Plans:</b>					
<b>Title:</b> Systems Engineering and Integration  <b>Description:</b> Initiate and conduct independent systems engineering and integration (SE&I) effort starting in FY10. Continue systems engineering efforts previously accomplished under SLRSC.  <b>FY 2010 Accomplishments:</b> Initiated follow-on, separate systems engineering and integration effort.  <b>FY 2011 Plans:</b> Continues follow-on, independent systems engineering and integration efforts. Supports completion of SLRSC and transition to follow-on LTRS Integrated Support Contract (LISC).  <b>FY 2012 Base Plans:</b> Will continue independent systems engineering and integration effort. Will support completion of SLRSC and transition to follow-on LISC.  <b>FY 2012 OCO Plans:</b>	1.882	2.965	2.943	-	2.943
<b>Title:</b> Program Support  <b>Description:</b> Provide program support, to include System Program Office operations, SETA, and FFRDC.  <b>FY 2010 Accomplishments:</b>	0.345	0.365	0.372	-	0.372

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development			R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System			PROJECT 674137: Launch and Test Range System (LTRS) Modernization					
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Continued program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC).											
FY 2011 Plans: Continued program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC).											
FY 2012 Base Plans: Will continue program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC).											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals						10.973	9.933	9.940	-	9.940	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0305182F: Spacelift Range System Space, OPAF	74.372	91.004	125.947	0.000	125.947	111.149	99.772	100.507	106.131	Continuing	Continuing
• PE 0305182F (1): Spares and Repair Parts, OPAF	2.948	2.978	2.976	0.000	2.976	3.076	3.120	3.172	0.000	Continuing	Continuing
D. Acquisition Strategy											
The AF will use three 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 Spacelift Range System Contract (SLRSC) modernizes the ranges and provides sustainment and logistics support. The Systems Engineering and Integration (SE&I) contract provides independent systems engineering and integration efforts to guide and support the modernization efforts. The AF will competitively award the follow-on LTRS Integrated Support Contract (LISC) in FY12 to provide modernization, sustainment, operations, and maintenance of the ranges.											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System				PROJECT 674137: Launch and Test Range System (LTRS) Modernization					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Spacelift Range System Contract	C/CPAF	ITT Industries:Cape Canaveral, FL	177.830	6.603	Oct 2010	-		-		-	0.000	184.433	TBD
LTRS Integrated Support Contract (LISC)	C/TBD	TBD:TBD,	-	-		6.625	Oct 2011	-		6.625	Continuing	Continuing	TBD
Systems Engineering and Integration Contract	C/CPIF	Booz Allen and Hamilton:McLean, VA	2.057	2.965	Oct 2010	2.943	Oct 2011	-		2.943	Continuing	Continuing	TBD
Subtotal			179.887	9.568		9.568		-		9.568			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPO Program Support (FFRDC, SETA, SPO Ops)	Various	Various:Various,	0.345	0.365	Oct 2010	0.372	Oct 2011	-		0.372	Continuing	Continuing	TBD
Subtotal			0.345	0.365		0.372		-		0.372			
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	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
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	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

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System				PROJECT 674137: Launch and Test Range System (LTRS) Modernization						
				Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals				180.232	9.933		9.940		-		9.940			

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305182F: <i>Spacelift Range System</i>	PROJECT 674137: <i>Launch and Test Range System (LTRS) Modernization</i>



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 Air Force			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0305182F: <i>Spacelift Range System</i>	<b>PROJECT</b> 674137: <i>Launch and Test Range System (LTRS) Modernization</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
- WR Comm Timing Mgmt System Ops Fix, Retest, Acceptance, and Turnover	1	2010	1	2012
- WR Mission Flight Control Center Ops Fix, Retest, Acceptance, and Turnover	1	2010	1	2012
- WR Ops Control Center (WROCC) Ops Fix, Retest, Acceptance, and Turnover	1	2010	1	2012
- Metric Tracking (Telemetry) 1st Site Ops Testing, Acceptance, and Turnover	1	2010	2	2011
- Metric Tracking (Telemetry) 2nd Site Ops Testing, Acceptance, and Turnover	3	2010	3	2011
- Metric Tracking (Telemetry) 3rd Site Ops Testing, Acceptance, and Turnover	3	2010	4	2013
- Metric Tracking (Telemetry) 4th Site Ops Testing, Acceptance, and Turnover	3	2010	4	2013
- Metric Tracking (Radar Open System Architecture) 1st Site Ops Testing, Acceptance, and Turnover	1	2010	2	2011
- Metric Tracking (Radar Open System Architecture) 2nd Site Ops Testing, Acceptance, and Turnover	3	2010	4	2012
- Command Destruct (Vehicle Uplink) 1st Site Ops Testing, Acceptance, and Turnover	3	2010	4	2011
- Command Destruct (Vehicle Uplink) 2nd Site Ops Testing, Acceptance, and Turnover	4	2010	1	2012
- Command Destruct (Vehicle Uplink) 3rd Site Ops Testing, Acceptance, and Turnover	1	2011	3	2012
- Command Destruct (Vehicle Uplink) 4th Site Ops Testing, Acceptance, and Turnover	3	2011	4	2012
- Follow-on LTRS Integrated Support Contract (LISC) Initiation	1	2012	2	2012
- Phase 1 of Central Command Upgrade/Enhanced Flight Termination	3	2011	1	2014
- Increment 1 of transition to internet protocol and service oriented architecture	1	2012	1	2014

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