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

R-1 ITEM NOMENCLATURE

APPROPRIATION/BUDGET ACTIVITY
3600: Research, Development, Test & Evaluation, Air Force

PE 0305182F: Spacelift Range System

BA 7: Operational Systems Development

| COST (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|--|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| Total Program Element | 9.260 | 9.877 | 8.760 | _ | 8.760 | 13.345 | 13.712 | 9.319 | 10.737 | Continuing | Continuing |
| 674137: Launch and Test Range System (LTRS) Modernization | 9.260 | 9.877 | 8.760 | - | 8.760 | 13.345 | 13.712 | 9.319 | 10.737 | 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 leads to higher operations and maintenance costs and increased risk of launch delays. The AF will address range deficiencies in FY13 via multiple contracts. The SLRS Contract (SLRSC) will continue to modernize several command, telemetry, and radar instrumentation sites and provide sustainment, depot level maintenance, and logistics support through early FY13, until the follow-on LTRS Integrated Support Contract (LISC) and other AF, DoD, and GSA contracts, as described below, take its place. As a follow-on to SLRSC, the AF will award LISC as a consolidated sustainment, operations, and maintenance contract in early FY13. Additionally, the AF will use other AF, DoD, and GSA contracts in FY13 to modernize the LTRS communication networks and flight termination systems in compliance with OSD policies and standards for net centricity, global information grid interface, information assurance, digital encryption, and test/training enabling architecture. The separate Systems Engineering and Integration (SE&I) contract will continue in FY13 to provide independent systems engineering and integration support complementing SLRSC, LISC, and other AF, DoD, and GSA contracts. These upgrades to fielded systems are categorized as Budget Activity 7, Operational Systems Development.

| B. Program Change Summary (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|---|---------|---------|--------------|-------------|---------------|
| Previous President's Budget | 9.933 | 9.940 | 9.976 | - | 9.976 |
| Current President's Budget | 9.260 | 9.877 | 8.760 | - | 8.760 |
| Total Adjustments | -0.673 | -0.063 | -1.216 | - | -1.216 |
| Congressional General Reductions | - | -0.063 | | | |
| Congressional Directed Reductions | - | - | | | |
| Congressional Rescissions | - | - | | | |
| Congressional Adds | - | - | | | |
| Congressional Directed Transfers | - | - | | | |
| Reprogrammings | - | - | | | |
| SBIR/STTR Transfer | -0.602 | - | | | |
| Other Adjustments | -0.071 | - | -1.216 | - | -1.216 |

PE 0305182F: Spacelift Range System

Air Force

DATE: February 2012

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012 APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force PE 0305182F: Spacelift Range System

BA 7: Operational Systems Development

Change Summary Explanation

FY11: -\$0.071M for Congressional General Reductions and -\$0.602M for SBIR transfer

FY12: -\$0.063M for Congressional General Reductions.

FY13: -\$1.216M for reallocation of funding to higher Department priorities.

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|---|---------|---------|-----------------|----------------|------------------|
| Title: Range Modernization | 6.181 | 6.874 | 5.684 | - | 5.684 |
| Description: SLRSC conducts system integration, testing, security accreditations, and transition to operational testing of telemetry, radar, and command destruct instrumentation systems. Other AF, DoD, or GSA contracts provide engineering, integration, testing, and evaluation for flight termination system modernization and LTRS network modernization. They also provide selected instrumentation modernization efforts transitioned from SLRSC. LISC will provide interface engineering, integration, test support, and studies to support modernization efforts | | | | | |
| FY 2011 Accomplishments: SLRSC continued system integration, testing, security accreditation, and transition to operational testing of telemetry, radar, and command destruct instrumentation systems. | | | | | |
| FY 2012 Plans: SLRSC continues system integration, testing, security accreditations, and transition to operational testing of command destruct, radar, and telemetry instrumentation systems. Other AF, DoD, or GSA contracts initiate engineering, integration, test, and evaluation efforts for LTRS network modernization. | | | | | |
| FY 2013 Base Plans: SLRSC will complete system integration, testing, security accreditations, and transition to operational testing of selected telemetry, radar, and command destruct instrumentation systems. Other AF, DoD, or GSA contracts will complete remaining instrumentation modernization efforts transitioned from SLRSC. Additionally, they will continue engineering, integration, testing, and evaluation for LTRS network modernization, and they will initiate engineering, integration, testing, and evaluation for flight termination system modernization. LISC will provide interface engineering, integration, test support, and studies to support modernization efforts. | | | | | |
| FY 2013 OCO Plans: N/A | | | | | |
| Title: Systems Engineering and Integration | 2.714 | 2.625 | 2.685 | - | 2.685 |

PE 0305182F: Spacelift Range System Air Force

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

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

DATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0305182F: Spacelift Range System

| BA 7: Operational Systems Development | | | | | |
|--|---------|---------|-----------------|----------------|------------------|
| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
| Description: Conduct independent systems engineering and integration (SE&I) efforts to complement modernization and sustainment efforts under SLRSC, LISC, and other AF, DoD, or GSA contracts. Continue SE&I support for instrumentation modernization efforts under SLRSC and LISC. Provide system definition, architecture, and integration planning and support for LTRS communications network modernization and flight termination system enhancement via other AF, DoD, or GSA contracts. | | | | | |
| FY 2011 Accomplishments: Continued independent SE&I efforts to complement instrumentation modernization and sustainment efforts under SLRSC. Supported preparations for award of follow-on LISC. Continued system definition/architecture/integration planning for LTRS network modernization and flight termination system enhancement via other AF, DoD, or GSA contracts. | | | | | |
| FY 2012 Plans: Continues independent SE&I efforts to complement modernization and sustainment efforts. Provides SE&I support for continuing SLRSC instrumentation modernization and sustainment efforts, as well as preparations to support sustainment efforts under follow-on LISC and continuation of instrumentation modernization efforts under other AF, DoD, and GSA contracts. Conducts system definition, architecture, and integration planning for LTRS communications network modernization and flight termination system enhancement via other AF, DoD, and GSA contracts. | | | | | |
| FY 2013 Base Plans: Continue independent SE&I efforts to complement modernization and sustainment efforts under SLRSC, LISC, and other contracts. Provides SE&I support for: closeout SLRSC instrumentation modernization and sustainment efforts; transition of sustainment efforts to follow-on LISC; and continuation of instrumentation modernization efforts on other AF, DoD, and GSA contracts. Provide systems definition, architecture, integration planning and support for LTRS network modernization and flight termination system enhancement via other AF, DoD, or GSA contracts. | | | | | |
| FY 2013 OCO Plans: N/A | | | | | |
| Title: Program Support | 0.365 | 0.378 | 0.391 | - | 0.391 |
| Description: Provide program support, to include System Program Office operations, Systems Engineering and Technical Assistance (SETA), and Federally Funded Research and Development Centers (FFRDC). | | | | | |

PE 0305182F: Spacelift Range System

Air Force

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

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0305182F: Spacelift Range System

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|--|---------|---------|-----------------|----------------|------------------|
| FY 2011 Accomplishments: Continued program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC). | | | | | |
| FY 2012 Plans: Continue program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC). | | | | | |
| FY 2013 Base Plans: Continue program support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC). | | | | | |
| FY 2013 OCO Plans: N/A | | | | | |
| Accomplishments/Planned Programs Subtotals | 9.260 | 9.877 | 8.760 | - | 8.760 |

D. Other Program Funding Summary (\$ in Millions)

| | | | FY 2013 | FY 2013 | FY 2013 | | | | | Cost To | |
|---------------------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|------------|-------------------|
| <u>Line Item</u> | FY 2011 | FY 2012 | Base | OCO | <u>Total</u> | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Complete | Total Cost |
| • P-45: OPAF, Spacelift Range | 103.201 | 124.967 | 109.545 | 0.000 | 109.545 | 98.062 | 96.965 | 102.823 | 105.930 | Continuing | Continuing |
| System Space, PE 0305182F | | | | | | | | | | | |
| • P-71: OPAF, Spares and Repair | 2.829 | 2.976 | 3.076 | 0.000 | 3.076 | 3.120 | 3.200 | 0.000 | 0.000 | Continuing | Continuing |
| Parts,PE 0305182F | | | | | | | | | | _ | |

E. Acquisition Strategy

Air Force

The AF will use competitively awarded, complementary contracts managed by the Space and Missile Systems Center, as well as other AF, DoD, or GSA contracts, to modernize and sustain the ranges on a minimal-interference basis as they continue to support operational launches and tests. The Spacelift Range System Contract (SLRSC) will continue to modernize the ranges and provide sustainment and logistics support until award of the follow-on LTRS Integrated Support Contract (LISC) and other AF, DoD, and GSA contracts. The AF will competively award LISC in FY13 to provide consolidated sustainment, operations, and maintenance of the ranges. Other AF, DoD, or GSA contracts will modernize range communications networks, flight termination systems, and other range systems (e.g., radars and transportable telemetry/command systems), capitalizing on ongoing efforts to provide global information grid interface, information assurance, internet protocol upgrades, digital encryption, and elimination of obsolescence. The Systems Engineering and Integration (SE&I) contract will continue to provide independent SE&I efforts to guide and support the modernization and sustainment efforts.

PE 0305182F: Spacelift Range System

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R-1 Line #203

DATE: February 2012

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Ford | ce | DATE: February 2012 |
|---|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0305182F: Spacelift Range System | |
| F. Performance Metrics Please refer to the Performance Base Budget Overview Book for Force performance goals and most importantly, how they contribute the performance goals are most importantly. | information on how Air Force resources are applied anute to our mission. | nd how those resources are contributing to Air |
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PE 0305182F: Spacelift Range System Air Force

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| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force | | DATE: February 2012 |
|---|---|---|
| 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 |
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PE 0305182F: Spacelift Range System

Air Force

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0305182F: Spacelift Range System 674137: Launch and Test Range System

BA 7: Operational Systems Development (LTRS) Modernization

Schedule Details

| | Sta | art | End | | |
|---|---------|------|---------|------|--|
| Events | Quarter | Year | Quarter | Year | |
| WR Mission Flight Control Center Ops Acceptance | 1 | 2012 | 2 | 2012 | |
| WR Mission Flight Control Center IOC | 2 | 2012 | 2 | 2012 | |
| WR Mission Flight Control Center FOC | 3 | 2012 | 3 | 2012 | |
| Metric Tracking (Telemetry) WR Pillar Point Info Assurance Fixes Complete | 1 | 2011 | 2 | 2012 | |
| Metric Tracking (Telemetry) WR Pillar Point Ops Turnover | 2 | 2012 | 3 | 2012 | |
| Metric Tracking (Telemetry) ER Tel-IV Authority to Operate | 4 | 2011 | 1 | 2013 | |
| Metric Tracking (Telemetry) ER Tel-IV Ops Turnover | 4 | 2012 | 1 | 2013 | |
| Metric Tracking (Telemetry) WR Oak Mtn B DT&E | 4 | 2012 | 1 | 2013 | |
| Metric Tracking (Telemetry) WR Oak Mtn B Ops Turnover | 2 | 2013 | 4 | 2013 | |
| Metric Tracking (Telemetry) WR Oak Mtn A Antenna Turnover | 2 | 2012 | 4 | 2012 | |
| Metric Tracking (Telemetry) WR Oak Mtn A Site Turnover | 1 | 2013 | 4 | 2013 | |
| Metric Tracking (Radar) ER Patrick Site Ops Acceptance | 1 | 2011 | 2 | 2011 | |
| Metric Tracking (Radar) ER Patrick Site Ops Turnover | 3 | 2011 | 3 | 2012 | |
| Metric Tracking (Radar) WR VAFB Site DT&E | 1 | 2013 | 2 | 2013 | |
| Metric Tracking (Radar) WR VAFB Site Ops Turnover | 3 | 2013 | 1 | 2014 | |
| Command Instrumentation Site WR CT-1 Ops Testing | 4 | 2011 | 1 | 2012 | |
| Command Instrumentation Site WR CT-1 Ops Turnover | 2 | 2012 | 2 | 2012 | |
| Command Instrumentation Site ER Cape 1B Ops Testing | 1 | 2012 | 1 | 2012 | |
| Command Instrumentation Site ER Cape 1B Ops Turnover | 2 | 2011 | 3 | 2012 | |
| Command Instrumentation Site WR CT-4 Ops Testing | 3 | 2012 | 4 | 2012 | |
| Command Instrumentation Site WR CT-4 Ops Turnover | 1 | 2013 | 1 | 2013 | |
| Phase 1 of Central Command Remoting System Complete | 1 | 2011 | 3 | 2011 | |

PE 0305182F: Spacelift Range System

Air Force