Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

R-1 ITEM NOMENCLATURE

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

PE 0207131F: A-10 Squadrons

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

| COST (\$ in Millions) | All Prior Years | FY 2012 | FY 2013 [#] | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|----------------------------|--------------------|---------|----------------------|-----------------|-------------------|------------------|---------|---------|---------|---------|---------------------|---------------|
| Total Program Element | - | 11.006 | 13.538 | 9.614 | - | 9.614 | 15.400 | 14.853 | 13.409 | 13.650 | Continuing | Continuing |
| 674809: A-10 Squadrons | - | 11.006 | 13.538 | 9.614 | - | 9.614 | 15.400 | 14.853 | 13.409 | 13.650 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

A. Mission Description and Budget Item Justification

The A-10 is an essential component of successful joint air operations representing a crucial component of the Combat Air Forces (CAF) force structure. The A-10 concept of operations requires a flexible, adaptable and survivable weapon system providing close-air support, combat search and rescue, and special operations capabilities. Current high operational tempo experienced by the Expeditionary Air Force requires the A-10 to perform effectively in a variety of operational roles. The A-10 must conduct around-the-clock air operations under various weather conditions against numerous enemy threats employing a full spectrum of air defense systems.

FY 2014 RDT&E funds address evolving and continuing user requirements that must be incorporated within the Operational Flight Program (OFP) in order to operate improving weapons and targeting capabilities as they become available. User requirements are formally reviewed for incorporation with a 2-year release cycle. These requirements address hardware and software OFP deficiencies. Final integration of hardware and software requirements into a unified release occurs after rigorous testing, validation and verification using software integration laboratories (SIL), field representative assets, and production representative assets. Results of previously planned developmental and modernization actions provide the A-10 with new combat capabilities that employ a variety of smart weapons, improved situational awareness, and enhanced target identification and designation capability. The funds budgeted in the near term provide development of a SIL in support of the transition to organic software development. These funds also provide updates and integration of the aircraft OFP (Suites 8, 9, and 10), weapons integration, targeting pod updates and integration, communication/navigation/datalink improvements (e.g. Mode 5, Combatant Survivor Evader Locator (CSEL), Anti-Jam Embedded Global Positioning System/Inertial Navigation System (Embedded GPS/ INS), Improved Data Modem (IDM), etc.), self-protection integration (e.g. Electronic Protection, selfprotection flares/chaff, Radar Warning Receiver, etc.), and Full Mission Trainer (FMT) concurrency development. Ongoing planning activities will continue to address diminishing manufacturing sources and obsolescence issues as required and provide replacement capabilities.

This program is in Budget Activity 7. Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

PE 0207131F: A-10 Squadrons

Air Force

R-1 Line #133

DATE: April 2013

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

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PE 0207131F: A-10 Squadrons

| B. Program Change Summary (\$ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---------|---------|--------------|-------------|---------------|
| Previous President's Budget | 11.006 | 13.538 | 13.410 | - | 13.410 |
| Current President's Budget | 11.006 | 13.538 | 9.614 | - | 9.614 |
| Total Adjustments | 0.000 | 0.000 | -3.796 | - | -3.796 |
| Congressional General Reductions | - | 0.000 | | | |
| Congressional Directed Reductions | - | 0.000 | | | |
| Congressional Rescissions | 0.000 | 0.000 | | | |
| Congressional Adds | - | 0.000 | | | |
| Congressional Directed Transfers | - | 0.000 | | | |
| Reprogrammings | 0.000 | 0.000 | | | |
| SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| Other Adjustments | 0.000 | 0.000 | -3.796 | - | -3.796 |

Change Summary Explanation

C Accomplishments/Planned Programs (\$ in Millions)

Due to higher Air Force priorities, FY14 was reduced by \$3.8M.

| C. Accomplishments/Flanned Frograms (\$ in Millions) | F 1 2012 | FT 2013 | FT 2014 |
|--|----------|---------|---------|
| Title: OFP Development | 9.733 | 12.448 | 8.412 |
| Description: A-10C OFP Suite software is updated and released every two years to permit timely integration of new precision weapons, updated targeting pods, improved avionics, and enhanced electronic warfare capabilities. These upgraded capabilities are in response to evolving operational requirements including Urgent Operational Needs generated by the ever-changing operational environment of close air support. | | | |
| FY 2012 Accomplishments: FY12 efforts included initial fielding of helmet mounted cueing system, Lightweight Airborne Recovery System V12 (LARS V12), initiation of Suite 8 development, and the integration of Combatant Survivor Evader Locator's (CSEL) with CSEL Integration Module (CIM). | | | |
| FY 2013 Plans: FY13 efforts continue the development of Suite 8 including initial testing of LARSV12 and the test, evaluation, and initial integration of the Mode 5 radio Identify Friend or Foe capability into the A-10C OFP. These efforts respond to a DoD mandate for an FY14 Initial Operational Capability. A-10 FMT simulator software integration and development must be updated to remain concurrent with the aircraft's OFP software. | | | |
| FY 2014 Plans: | | | |

PE 0207131F: *A-10 Squadrons*

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EV 2012 EV 2013

EV 2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE PE 0207131F: *A-10 Squadrons*

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|--|---------|---------|---------|
| FY14 continues Suite 8 development and testing, as well as the fielding of Suite 8. Suite 9 software development is planned to | | | |
| start in FY14 and will consist of advanced targeting pod integration, weapons integration, communications/navigation systems integration, and cockpit pilot-vehicle interface integration. Additionally, A-10 FMT simulator software integration and development | | | |
| must be updated to remain concurrent with the aircraft's OFP software. | | | |
| Title: OFP development PMA | 1.273 | 1.090 | 1.202 |
| Description: Program management support cost. | | | |
| FY 2012 Accomplishments: | | | |
| Program management support cost. | | | |
| FY 2013 Plans: | | | |
| Program management support cost. | | | |
| FY 2014 Plans: | | | |
| Program management support cost. | | | |
| Accomplishments/Planned Programs Subtotals | 11.006 | 13.538 | 9.614 |

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

| | • | • | FY 2014 | FY 2014 | FY 2014 | | | | | Cost To | |
|-----------------------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2012 | FY 2013 | Base | OCO | <u>Total</u> | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Complete | Total Cost |
| • APAF: BA05: A01000: <i>A-10</i> | 12.528 | 89.919 | 47.598 | | 47.598 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Squardrons, PE 0207131F | | | | | | | | | | | |
| • APAF: BA05: Line Item #A01000: | 0.674 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Fightor Tootical Data Link DE | | | | | | | | | | - | - |

Fighter Tactical Data Link, PE

0207445F **Remarks**

Air Force

E. Acquisition Strategy

Prior to FY 2009, A-10 OFP development efforts were conducted under the A-10 Prime Contract, awarded to Lockheed Martin Systems Integration in December 1997 through a full-and-open competition. Suite 8 development efforts began in FY12, with lab development and stand-up beginning in FY11 as A-10 OFP suites development and sustainment efforts transitioned from contractual work by Lockheed Martin to organic work by 309th Software Maintenance Group (SMxG) at Hill AFB. All additional suites beyond 8 will be performed by the 309th SMxG until directed otherwise. The A-10 FMT simulator OFP is managed by the Simulator Division at Wright-Patterson Air Force Base and is contractor developed and integrated.

PE 0207131F: A-10 Squadrons

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 | | | | |
|--|--|------------------|--|--|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0207131F: A-10 Squadrons | | | | | |
| F. Performance Metrics Please refer to the Performance Base Budget Overview Book for informance performance goals and most importantly, how they contribute | Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air | | | | | |
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PE 0207131F: *A-10 Squadrons* Air Force

DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0207131F: A-10 Squadrons 674809: A-10 Squadrons BA 7: Operational Systems Development FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** oco FY 2012 FY 2013 Base Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost OFP Development (309th 309th SMXG:Hill Various 8.824 Nov 2011 10.329 Nov 2012 8.412 Jan 2014 8.412 Continuing Continuing SMXG) AFB. UT Subtotal 0.000 8.824 10.329 8.412 0.000 8.412 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Complete Cost Contract USAF (Multiple) 0.889 Nov 2011 0.373 Nov 2012 0.675 Jan 2014 0.675 Continuing Continuing Various Various: Various. Subtotal 0.000 0.889 0.373 0.675 0.000 0.675 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract **Target** Method Performing All Prior Award Award Award Award Cost To Value of Total **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract USAF (OFP) Various Various: Various, 0.350 1.838 Nov 2012 0.000 Jan 2014 0.000 Continuing Continuing Subtotal 0.000 0.350 1.838 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method All Prior Cost To Value of Performing Award Award Award Award Total **Cost Category Item** & Type Years Cost Cost Contract Activity & Location Cost Date Cost Date Date **Date** Cost Complete Cost 0.998 May 2013 **PMA** Various Various:. 0.943 0.527 Jan 2014 0.527 Continuing Continuing Subtotal 0.000 0.943 0.998 0.527 0.000 0.527 Target All Prior FY 2014 FY 2014 FY 2014 Cost To Total Value of Years FY 2012 FY 2013 Base oco Total Complete Cost Contract 11.006 0.000 **Project Cost Totals** 0.000 13.538 9.614 9.614

PE 0207131F: *A-10 Squadrons*

Remarks

Air Force

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UNCLASSIFIED Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force DATE: April 2013 **R-1 ITEM NOMENCLATURE PROJECT** APPROPRIATION/BUDGET ACTIVITY PE 0207131F: A-10 Squadrons 3600: Research, Development, Test & Evaluation, Air Force 674809: A-10 Squadrons BA 7: Operational Systems Development A-10 3600 Master Schedule (PEC 027131F) FY 2012 FY2013 FY 2014 FY 2015 FY 2016 | FY 2017 | FY 2018 4 SDD & Test R&D / Development / Integration / Flight Test Suite 7B **OFP Fielding** 0

R&D / Development / Integration / Flight Test

Suites 8 - 10 and beyond field on a bi-annual basis

SDD & Test

OFP Fielding

SDD & Test

OFP Fielding

Suite 8

Suite 9-10

R&D / Development / Integration / Flight Test

Suite 9

Suite 10

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DATE: April 2013 Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE **PROJECT**

3600: Research, Development, Test & Evaluation, Air Force PE 0207131F: A-10 Squadrons 674809: A-10 Squadrons BA 7: Operational Systems Development

Schedule Details

| | St | End | | |
|--|---------|------|---------|------|
| Events | Quarter | Year | Quarter | Year |
| Suite 7B OFP Design, Development & Flight Test | 1 | 2012 | 4 | 2012 |
| Suite 7B Fields | 4 | 2012 | 4 | 2012 |
| Suite 8 - OFP System Design, Development & Flight Test | 1 | 2012 | 4 | 2014 |
| Suite 8 OFP Fields | 4 | 2014 | 4 | 2014 |
| Suite 9 OFP System Design, Development & Flight Test | 3 | 2014 | 4 | 2016 |
| Suite 9 OFP Fields | 4 | 2016 | 4 | 2016 |
| Suite 10 OFP System Design, Development & Flight Test | 3 | 2016 | 4 | 2018 |
| Suite 10 OFP Fields | 4 | 2018 | 4 | 2018 |

PE 0207131F: A-10 Squadrons

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