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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0207131F: A-10 SQUADRONS							
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
Total Program Element	11.878	5.661	11.051	-	11.051	13.403	13.340	13.052	13.185	Continuing	Continuing
674809: <i>A-10 Squadrons</i>	11.878	5.661	11.051	-	11.051	13.403	13.340	13.052	13.185	Continuing	Continuing

A. Mission Description and Budget Item Justification

The concept of operations for the A-10 requires an agile and survivable weapon system that provides close-air support, combat search and rescue, and special operations support. The high operations tempo maintained by the Expeditionary Air Force requires that each combat platform exhibit the flexibility to effectively perform in a variety of operational roles. To implement these strategies, Combat Air Forces (CAF) must be able to conduct air operations around-the-clock under various weather conditions against numerous enemy threats employing a full spectrum of air defense systems to include countermeasures. The A-10 is an essential component of successful air operations, and represents a significant percentage of the CAF force structure with 346 aircraft currently in service (plus one ground training aircraft). FY 2012 RDT&E funds address continuing user requirements that need to be incorporated within the Operational Flight Program (OFP). Each year user developmental requirements are formally reviewed for incorporation in the annual aircraft OFP release cycle to bring new capability to the A-10 and to fix both hardware and software OFP deficiencies. Final integration of hardware and software requirements into a unified release occurs only after rigorous testing, including validation and verification using software integration laboratories, 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, increased service life to the wing and fuselage, and enhanced target identification and designation capability. The funds budgeted in the near term will provide updates to the aircraft OFP in Suites 7 and 8 and will address continued integration of Mode 5, LARS V12, and Helmet Mounted Cuing System (HMCS). Ongoing planning and associated activities will continue to take place to prevent and overcome diminishing manufacturing sources and obsolescence issues as required.

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.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	12.197	5.661	5.750	-	5.750
Current President's Budget	11.878	5.661	11.051	-	11.051
Total Adjustments	-0.319	-	5.301	-	5.301
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.319	-	5.301	-	5.301

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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 0207131F: A-10 SQUADRONS				PROJECT 674809: A-10 Squadrons			
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
674809: A-10 Squadrons	11.878	5.661	11.051	-	11.051	13.403	13.340	13.052	13.185	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note The program funding includes reductions for overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$.777M in FY12.											
A. Mission Description and Budget Item Justification The concept of operations for the A-10 requires an agile and survivable weapon system that provides close-air support, combat search and rescue, and special operations support. The high operations tempo maintained by the Expeditionary Air Force requires that each combat platform exhibit the flexibility to effectively perform in a variety of operational roles. To implement these strategies, Combat Air Forces (CAF) must be able to conduct air operations around-the-clock under various weather conditions against numerous enemy threats employing a full spectrum of air defense systems to include countermeasures. The A-10 is an essential component of successful air operations, and represents a significant percentage of the CAF force structure with 346 aircraft currently in service (plus one ground training aircraft). FY 2012 RDT&E funds address continuing user requirements that need to be incorporated within the Operational Flight Program (OFP). Each year user developmental requirements are formally reviewed for incorporation in the annual aircraft OFP release cycle to bring new capability to the A-10 and to fix both hardware and software OFP deficiencies. Final integration of hardware and software requirements into a unified release occurs only after rigorous testing, including validation and verification using software integration laboratories, 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, increased service life to the wing and fuselage, and enhanced target identification and designation capability. The funds budgeted in the near term will provide updates to the aircraft OFP in Suites 7 and 8 and will address continued integration of Mode 5, LARS V12, and Helmet Mounted Cuing System (HMCS). Ongoing planning and associated activities will continue to take place to prevent and overcome diminishing manufacturing sources and obsolescence issues as required. 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.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Mode 5							2.661	-	-	-	-
Description: Integration of Mode 5 (Identify Friend or Foe) capability into A-10 fleet											
FY 2010 Accomplishments:											

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
The remaining APX-119 transponders, 27 each, will be purchased. The purchase will support the A-10 IFF upgrade to Mode S capability. In addition, technical orders and engineering data will be developed in support of the Mode 5 upgrade to the transponders. Remaining funds will be used to the Mode 5 upgrade to be installed on existing Mode S units. FY 2011 Plans: Not applicable. FY 2012 Base Plans: Not applicable FY 2012 OCO Plans:								
Title: OFP Development Description: A-10C OFP Suite software is updated in an annual release cycle to permit rapid integration of new precision weapons, advanced targeting pods, improved avionics, and enhanced EW capabilities. These efforts are frequently in response to Urgent Operational Needs and evolving mission needs generated by the ever-changing operational environment of close air support FY 2010 Accomplishments: A-10C Operational Flight program (OFP) software is updated in an annual release cycle to permit rapid integration and test of new/updated systems (i.e., precision weapons, targeting pods, avionics, and electronic warfare capabilities). These efforts are in response to Urgent Operational Needs and respond to the evolving operational mission needs for the A-10C close air support role. A significant FY10 addition is the test and evaluation of the Helmet Mounted Cuing System (HMCS) in response to a COCOM-declared UON. FY 2011 Plans: A-10C OFP software is updated in an annual release cycle to permit rapid integration and test of new/updated systems (i.e., precision weapons, targeting pods, avionics, and electronic warfare capabilities). These efforts are in response to Urgent Operational Needs and respond to the evolving operational mission needs for the A-10C close air support role. A significant FY11 addition is the fielding of HMCS and the test and evaluation of the Lightweight Airborne Radio System (LARS) (AN/ARS-6 V12) called LARSV12 in response to DMSMS issues with LARSv6, plus the added Combatant Survivor Evader Locator (CSEL) capability potential of the LARSV12. FY 2012 Base Plans:				6.727	5.661	11.051	-	11.051

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B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
A-10C OFP software is updated in an annual release cycle to permit rapid integration and test of new/updated systems (i.e., precision weapons, targeting pods, avionics, and electronic warfare capabilities). These efforts are often in response to Urgent Operational Needs and respond to the evolving operational mission needs for the A-10C close air support role. A significant FY12 addition is the fielding of LARSV12 and the test, evaluation, and integration of the Mode 5 radio Identify Friend or Foe (IFF) capability into the A-10C OFP. This is in response to a DoD mandate for Initial Operational Capability (IOC) capability being fielded in the A-10C by FY14.											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							9.388	5.661	11.051	-	11.051
							FY 2010	FY 2011			
Congressional Add: CAD/CAM Aircraft Structural Overhaul Workcenter							2.490	-			
FY 2010 Accomplishments: A government-industry team will develop new repair procedures utilizing CAD/CAM technology. The program will build upon a successful exploratory program for B-52 engine structural overhaul to enable Hill Air Force Base (AFB) A-10 System Program Office(SPO) and Mission Support, Inc (MSI) to identify existing structural overhaul requirements for the A-10 that have extensive tooling requirements or are experiencing delays associated with tooling availability.											
FY 2011 Plans:											
Congressional Adds Subtotals							2.490	-			
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 0207131F: A-10 Squadrons, APAF	252.788	181.181	152.454	0.000	152.454	151.434	134.537	0.000	0.000	Continuing	Continuing
	8.921	0.680	0.674	0.000	0.674	0.000	0.000	0.000	0.000	Continuing	Continuing

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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 0207131F: A-10 SQUADRONS				PROJECT 674809: A-10 Squadrons			
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 0207445F: Fighter Tactical Data Link, APAF											
D. Acquisition Strategy											
Helmet Mounted Cuing System (HMCS) acquisition strategy was developed to support Air National Gaurd (ANG) and Air Force Reserve A-10 funded requirements. The Request for Proposal was released to industry September 2009. Source selection was completed and contract awarded in April 2010 using NGREA funding. Contracted effort includes the Congressional Add of RDT&E funds for HMCS integration.											
Computer Aided Design/Computer Aided Manufacture (CAD/CAM) Aircraft Structural Overhaul Work Center acquisition strategy is to award a sole source Small Business Set-Aside contract to Mission Support, Inc. The contract will describe the requirements for identifying existing structural overhaul activities for the A-10 that need tooling developed. Expedited tooling development will reduce production delays during parts remanufacturing and thus improve aircraft overhaul throughput and availability.											
MODE 5 acquisition strategy is being developed to meet Air Force directives.											
Prior to FY 2009, A-10 operational flight program (OFP)development efforts were conducted under the A-10 Prime Contract awarded to Lockheed Martin Systems Integration (LMSI) in December 1997 through a full-and-open competition. The original period of performance/ordering period ended in December 2006. A new Thunderbolt Lifecycle Program Support(TLPS)contract was awarded to three sucessful bidders in 2009.											
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 0207131F: A-10 SQUADRONS	PROJECT 674809: A-10 Squadrons
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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
Precision Engagement Development	SS/CPIF	Lockheed Martin Sys Integration:Owego, NY	130.227	-		-		-		-	0.000	130.227	0.000
Helmet Mounted Cueing System	C/Various	Ratheon:Indianapolis, IN	3.989	-		-		-		-	0.000	3.989	0.000
Mode 5 (IFF)	TBD	TBD:TBD,	2.970	-		-		-		-	0.000	2.970	0.000
OFP Development (LMSI)	SS/Various	LMSI:Owego NY,	3.159	2.261	Nov 2010	4.534	Nov 2011	-		4.534	Continuing	Continuing	0.000
OFP Development (TLPS)	TBD	TBD:TBD,	-	-	Dec 2010	-	Dec 2011	-		-	Continuing	Continuing	0.000
CAD/CAM Aircraft Structural Overhaul Work Center	SS/TBD	Mission Support, Inc:Clearfield, UT	2.500	-		-		-		-	0.000	2.500	0.000
Subtotal			142.845	2.261		4.534		-		4.534			0.000

Remarks

A-10 Program office has researched the market and cannot justify award of a sole source contract for CAD/CAM Aircraft Structural Overhaul Work Center to Mission Support, Inc in compliance with the Congressional mark, therefore, no award date is provided.

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
USAF (Multiple)	Various	Various:Various,	0.974	0.531	Nov 2010	1.162	Nov 2011	-		1.162	Continuing	Continuing	0.000
Subtotal			0.974	0.531		1.162		-		1.162			0.000

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
USAF (OFP)	TBD	TBD:TBD,	3.593	1.754		3.602		-		3.602	0.000	8.949	0.000
Subtotal			3.593	1.754		3.602		-		3.602	0.000	8.949	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
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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
Various	Various	Various:,	2.256	1.115		1.753		-		1.753	0.000	5.124	0.000
Subtotal			2.256	1.115		1.753		-		1.753	0.000	5.124	0.000

	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	149.668	5.661		11.051		-		11.051			0.000

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 & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207131F: <i>A-10 SQUADRONS</i>	PROJECT 674809: <i>A-10 Squadrons</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207131F: <i>A-10 SQUADRONS</i>	PROJECT 674809: <i>A-10 Squadrons</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Suite 6 OFP Fields	4	2010	4	2010
Suite 7A OFP System Design, Development & Flight Test	1	2010	3	2011
Suite 7A Fields	3	2011	3	2011
Suite 7B OFP Design, Development & Flight Test	1	2010	3	2012
Suite 7B Fields	3	2012	3	2012
Mode 5 (IFF) Integration	3	2011	4	2014
Helmet Mounted Cueing System	4	2010	3	2012
Suite 8 - 12 OFP System Design, Development & Flight Test	4	2011	3	2013
Suite 8 OFP Fields	4	2014	4	2014

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