

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2006
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0207141F F-117A SQUADRON
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Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	17.385	13.406	14.093	0.000	0.000	0.000	0.000	Continuing	TBD
3956 F-117A Stealth Fighter	17.385	13.406	14.093	0.000	0.000	0.000	0.000	Continuing	TBD

The FY03 National Defense Authorization Act (NDAA) language directed T&E centers to charge only direct costs beginning FY06; this resulted in a zero-balance transfer (ZBT) of funding over the FYDP from the customer accounts (for indirect test costs) to T&E support, PE 0605807F.

(U) A. Mission Description and Budget Item Justification

The F-117 is the world's first operational low-observable (LO) combat aircraft. Its combination of stealth and precision weapons delivery capability allows the USAF to hold even the most highly defended targets at risk. The program completed production in July 1990 with the delivery of the final F-117. The single operational F-117 unit is the 49th Fighter Wing stationed at Holloman AFB, NM.

The Air Force plans to retire 10 F-117 aircraft in FY07 and the remaining aircraft in FY08. Retirement of the aircraft will require a significant level of funding across the FYDP to carry out 1) contract terminations; 2) facility shutdown; 3) aircraft, tool and equipment disposition; and 4) potential environmental clean-up.

All of the FY07 development funding identified in this R-Doc will be re-allocated to start the program on termination/ shutdown efforts. A study to determine the required actions and their estimated costs is currently under way.

If retirement plans change to a later date, FY07 development efforts outlined below would continue.

- Development efforts continue for smart weapons integration, primarily in revisions to the Operational Flight Program (OFP). The current program scope implements three weapons capabilities: EGBU-27, JDAM and WCMD. System Development & Demonstration (SDD) started in FY01.

- The Combat Capability Sustainment Program (CCSP) replaces obsolete avionics systems, establishes new vendors and improves reliability and maintainability to keep the F-117 operational. CCSP began Concept & Technology Development (CTD) in FY00 with Congressional Add funding. Beginning in FY2004, SDD started for Expanded Data Transfer System (EDTS). EDTS is the system that allows data to be transferred from the mission planning environment to the aircraft for operations.

- The F-117 Weapon System Trainer (WST) requires a replacement for the imagery computer/image generation system. The vendor of the current system, SGI, no longer manufactures replacement boards for the imagery computer. Furthermore, the vendor no longer supports the current maintenance requirements. Recently, the computer was responsible for 80% of the total WST downtime. The downtime associated with the computer will likely increase over time.

- The F-117 Mission Planning System (MPS) requires an operational system upgrade. The National Imaging and Mapping Agency (NIMA) is migrating to DVD format for all mapping database operations and the F-117 MPS operating system cannot be modified to function with this capability. Additionally, the current MPS Solaris operating system and Sybase database product are no longer supported by the Air Force Mission Support System (AFMSS) program office. These obsolescence issues drive the requirement for both hardware and software upgrades.

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- Dual Radio was approved as an FY05 New Start, addressing changes in F-117 employment and tactics. The F-117 is now required to integrate with conventional strike packages, support aircraft, and special operations forces both in the air and on the ground. This requires the ability to communicate on and monitor multiple frequencies at the same time. This project enables the pilot to receive and transmit target, threat, and other critical mission data on two UHF channels at the same time. The dual radio capability meets this requirement and will allow the development of advanced tactics to support time sensitive targeting. Additionally, international communications requirements have changed and VHF 8.33KHz channel spacing has been mandated in many parts of the world. The current radio is UHF only. This project will provide growth capability to meet the required international communications capability on VHF once a VHF capable antenna is available to the aircraft

- SATCOM Antenna was approved as an FY05 New Start, addressing the requirement to function in a network centric combat environment. The project provides beyond line of sight, reach-back capability to obtain Time Sensitive Targeting (TST) information, increased in importance as F-117 employment and tactics continue to evolve. This SATCOM antenna project will extend the F-117s ability to receive and transmit dynamic targeting data from beyond line of sight locations to a point much closer to the target area.

- Common Data Recorder - The current Structures Tracking and Engine Management System (STEMS) and Low Observable Instrumentation System (LOIS) have limited memory capacity and obsolescence issues. The STEMS recorder is required to determine inspection intervals of the engines and structures of the aircraft to predict economic life of the aircraft. Additional memory is required to record additional parameters and increase the fidelity of the inspection intervals circumventing catastrophic failures. The LOIS functionality can be combined into STEMS to reduce the cost of supporting two unique subsystems. Additionally, this approach allows for future add-ins such as recording of flight, video, and crash data.

This program is in budget activity 7, Operational System Development, because all aircraft have been delivered and the program is in its deployment phase.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	29.399	13.600	14.035
(U) Current PBR/President's Budget	17.385	13.406	14.093
(U) Total Adjustments	-12.014	-0.194	
(U) Congressional Program Reductions			
Congressional Rescissions	-0.023	-0.194	
Congressional Increases			
Reprogrammings	-11.199		
SBIR/STTR Transfer	-0.792		

(U) Significant Program Changes:

- \$5.5M FY05 funds transferred to Warfighter Rapid Acquisition Program program element to jump start Dual Radio and SATCOM Antenna. \$5.3M transferred to meet higher AF requirements.

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Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
3956 F-117A Stealth Fighter	17.385	13.406	14.093	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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The Air Force plans to retire 10 F-117 aircraft in FY07 and the remaining aircraft in FY08. Retirement of the aircraft will require a significant level of funding across the FYDP to carry out 1) contract terminations; 2) facility shutdown; 3) aircraft, tool and equipment disposition; and 4) potential environmental clean-up. All of the FY07 development funding identified in this R-Doc will be re-allocated to start the program on termination/ shutdown efforts. A study to determine the required actions and their estimated costs is currently under way.

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- Development efforts continue for smart weapons integration, primarily in revisions to the Operational Flight Program (OFF). The current program scope implements three weapons capabilities: EGBU-27, JDAM and WCMD. System Development & Demonstration (SDD) started in FY01.

- The Combat Capability Sustainment Program (CCSP) replaces obsolete avionics systems, establishes new vendors and improves reliability and maintainability to keep the F-117 operational. CCSP began Concept & Technology Development (CTD) in FY00 with Congressional Add funding. Beginning in FY2004, SDD started for Expanded Data Transfer System (EDTS). EDTS is the system that allows data to be transferred from the mission planning environment to the aircraft for operations.

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(U) B. Accomplishments/Planned Program (\$ in Millions)	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) SDD for Smart Weapons Integration	5.077	3.893	3.000
(U) SDD for CCSP Expanded Data Transfer System (EDTS)	3.657		
(U) Concept Technology and Development (CTD) for CCSP	0.337		
(U) SDD for Weapon System Trainer (WST) Image Generation System	3.667		1.675
(U) Mission Planning System (MPS) Upgrade	3.694	4.569	2.447
(U) Modify flight test assets to conform with current modifications of operational jets	0.785	0.974	1.758
(U) Dual Radio SDD	0.168	1.538	0.726
(U) SATCOM Antenna SDD		1.632	0.962
(U) Initiate Common Data Recorder SDD		0.800	3.525
(U) Total Cost	17.385	13.406	14.093

(U) C. Other Program Funding Summary (\$ in Millions)	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN									
(U) Aircraft Procurement (BA-5), Appn 3010/BP1100, AF F117A Squadrons, PE 0207141F	22.578	9.493	24.422	8.932				0.000	65.425
(U) Aircraft Procurement (BA-5),	1.029								1.029

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3956 F-117A Stealth Fighter**(U) C. Other Program Funding Summary (\$ in Millions)**

Appn 3010/BP1600, AF F117A
Squadrons, PE 0207141F

(U) D. Acquisition Strategy

RDT&E funds are executed to develop improved capability, reliability, maintenance and safety modifications. Operational Flight Program (OFP) software is continuously updated as needed to complement modification development efforts. The contracting approach varies by individual effort and involves Cost Plus Fixed Fee (CPFF) and Cost Plus Award Fee (CPAF) contract types.

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Exhibit R-3, RDT&E Project Cost Analysis

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<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2005 Cost</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
Smart Weapon Integration SDD	CPAF	Lockheed Martin, Palmdale CA	19.374	5.077		3.893		4.430			32.774	
CCSP EDTS SDD	CPFF	Lockheed Martin, Palmdale CA		3.657							3.657	
CCSP CTD	CPFF	Lockheed Martin, Palmdale CA		0.337	Mar-05						0.337	
Weapon System Trainer Image Generation Sys Upgrd SDD	CPFF	Lockheed Martin, Palmdale CA		3.667	Sep-05			1.675			5.342	
Mission Planning System, Operating System Upgrade SDD	CPFF	Lockheed Martin, Palmdale CA		3.694	Mar-05	4.569		1.147			9.410	
Modify flight test assets to conform with current modifications of operational jets	CPFF	Lockheed Martin, Palmdale CA		0.785	Nov-04	0.974		1.628			3.387	
Dual Radio SDD	CPFF	Lockheed Martin, Palmdale CA		0.168	Jul-05	1.538		0.726			2.432	
SATCOM Antenna SDD	CPFF	Lockheed Martin, Palmdale CA		0.000	Jul-05	1.632		0.962			2.594	
Common Data Recorder SDD						0.800	Apr-06	3.525			4.325	
Subtotal Product Development			19.374	17.385		13.406		14.093		0.000	64.258	0.000
Remarks:												
(U) <u>Support</u>											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Test & Evaluation</u>											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u>											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												

Project 3956

R-1 Shopping List - Item No. 134-6 of 134-9

Exhibit R-3 (PE 0207141F)

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Exhibit R-3, RDT&E Project Cost Analysis

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(U) Total Cost	19.374	17.385	13.406	14.093	0.000	64.258	0.000
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Exhibit R-4, RDT&E Schedule Profile

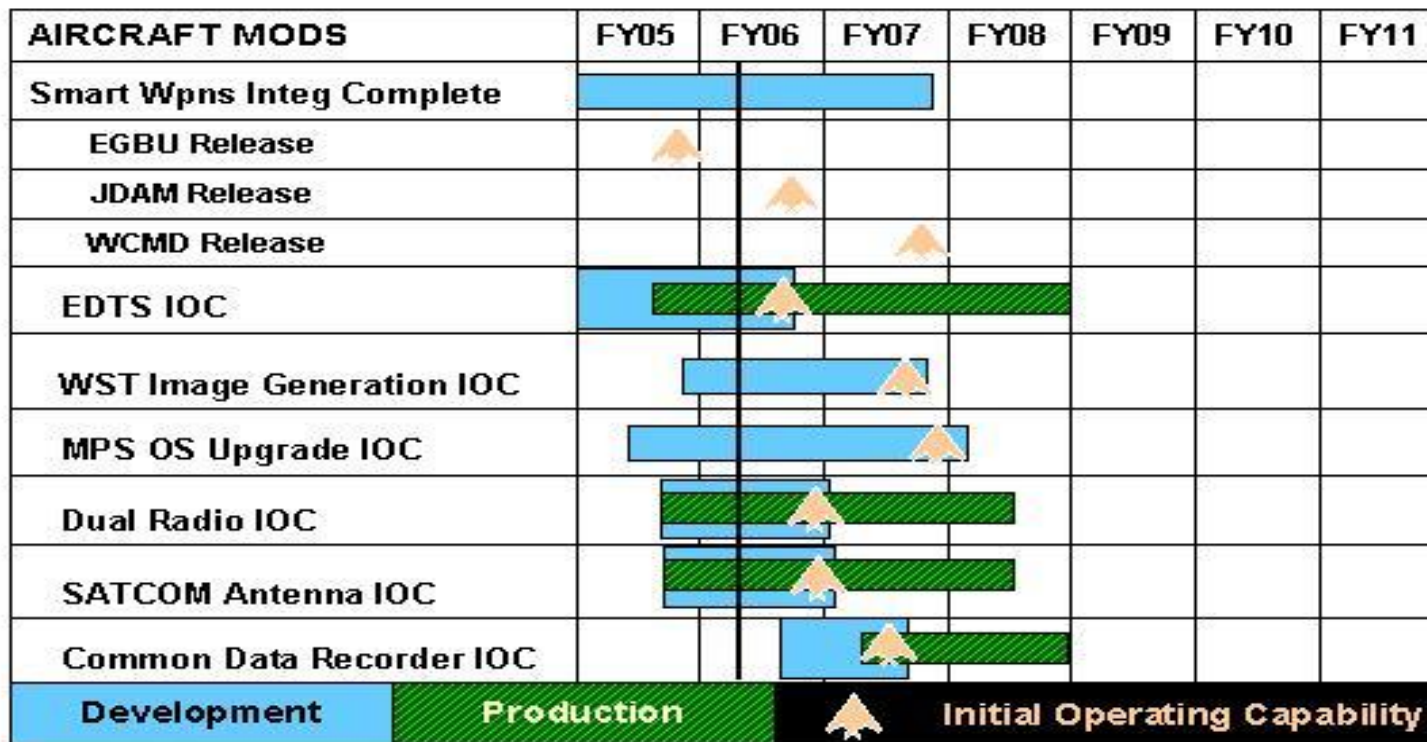
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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2006
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	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) <u>Schedule Profile</u>			
(U) Smart Weapons Integration Completion			4Q
(U) EGBU Release	4Q		
(U) JDAM Release		3Q	
(U) WCMD Release			4Q
(U) EDTS IOC		2Q	
(U) WST Image Generation IOC			2Q
(U) MPS OS Upgrade IOC			4Q
(U) Dual Radio IOC		4Q	
(U) SATCOM Antenna IOC		4Q	
(U) Common Data Recorder IOC			3Q