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PE NUMBER: 0207138F
PE TITLE: F-22 SQUADRONS

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2006		
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207138F F-22 SQUADRONS						
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		318.369	373.124	584.290	645.556	563.901	614.296	604.380	Continuing	TBD
4785	F-22	318.369	373.124	584.290	620.560	326.994	203.724	202.257	Continuing	TBD
5209	Spiral 4 and 5	0.000	0.000	0.000	24.996	236.907	410.572	402.123	0.000	0.000

(U) **A. Mission Description and Budget Item Justification**

The F-22A Raptor represents the USAF's top priority for providing the Joint Force with air dominance, operational access, homeland and cruise missile defense for the next 20+ years. The F-22A is a first-of-a-kind multi-mission fighter aircraft that combines stealth, supercruise, advanced maneuverability and integrated avionics to make it the world's most capable combat aircraft. The F-22A is currently closing out the Engineering and Manufacturing Development (EMD) phase of acquisition and continuing the spiral-modernization phase. This exhibit includes the spiral modernization enhancements required to enable a more robust air-to-air and air-to-ground target engagement capability in the most demanding threat environments-day or night.

Spirals 2 and 3 continue the development of global strike capability. The development program enhances the air vehicle, engine, and training system capabilities to improve F-22A weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

This program is in Budget Activity 7, Operational System Development, because the F-22A Program is developing the next-generation air dominance fighter for the USAF to counter emerging worldwide threats.

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

	FY 2005	FY 2006	FY 2007
(U) Previous President's Budget	362.394	403.517	582.512
(U) Current PBR/President's Budget	318.369	373.124	584.290
(U) Total Adjustments	-44.025	-30.393	
(U) Congressional Program Reductions	-0.262	-25.000	
Congressional Rescissions		-5.393	
Congressional Increases			
Reprogrammings	-34.366		
SBIR/STTR Transfer	-9.397		

(U) **Significant Program Changes:**

FY05 reductions for higher AF priorities, congressional rescissions, and an internal F-22 reprogramming.

FY06 reduction is a \$25M congressional mark.

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4785 F-22

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
4785 F-22	318.369	373.124	584.290	620.560	326.994	203.724	202.257	Continuing	TBD
Quantity of RDT&E Articles	0	1	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

The F-22A Raptor represents the USAF's top priority for providing the Joint Force with air dominance, operational access, homeland and cruise missile defense for the next 20+ years. The F-22A is a first-of-a-kind multi-mission fighter aircraft that combines stealth, supercruise, advanced maneuverability and integrated avionics to make it the world's most capable combat aircraft. The F-22A is currently closing out the Engineering and Manufacturing Development (EMD) phase of acquisition and continuing the spiral-modernization phase. This exhibit includes the spiral modernization enhancements required to enable a more robust air dominance air-to-air/Suppression/Destruction of Enemy Air Defense (SEAD/DEAD) and other air-toground target engagement capability in the most demanding threat environments-day or night.

Spirals 2 and 3 continue the development of global strike capability. The development program enhances the air vehicle, engine, and training system capabilities to improve F-22A weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

This program is in Budget Activity 7, Operational System Development, because the F-22A Program is developing the next-generation air dominance fighter for the USAF to counter emerging worldwide threats.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue requirements definition and spiral development activities for planned hardware and software capability upgrades. (NSP)	230.447	213.319	361.671
--Continue Spiral 2 to develop Global Strike Conops basic capabilities.			
--Continue Spiral 3 to develop Global Strike Conops enhanced capabilities.			
(U) Continue Post-EMD System Engineering/Program Management Contract Support	32.937	35.752	41.030
(U) Continue Air Vehicle Instrumentation support (Training and Test Instrumentation)	3.501	18.540	8.000
(U) Continue Flight test and flight test support at Edwards AFB.	17.672	55.946	66.838
(U) Continue Mission support of the SPO; travel, computer costs, misc contracts, etc.	7.885	10.567	10.751
(U) Continue F-22A Reliability and Maintainability Maturation Program (RAMMP)		14.000	29.000
(U) Replacement Test Aircraft (RTA) and Instrumentation	25.927	25.000	67.000
(U) Total Cost	318.369	373.124	584.290

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(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) AF RDT&E (PE 64239F)	211.815	75.117							24,086.648
(U) PRTV II (6)									1,580.580
(U) F-22A Squadrons Procurement (3010) (PE 0207138F)	95.187	78.489	262.906	300.218	285.885	170.679	398.246	Continuing	TBD
(U) F-22A Squadrons Procurement (3080) (PE 027138F)	0.443	1.471	2.741	1.735	0.000	0.721	1.479	Continuing	TBD
(U) Military Construction (PE 0604239F)	0.000	0.000	0.000	0.000	0.000	0.000		0.000	65.000
(U) Military Construction (PE 0207219F)	0.000	0.000	0.000	0.000	0.000	0.000		0.000	96.018
(U) Military Construction (PE 0207138F)	28.370	47.120	62.900	98.391	0.000	0.000	0.000	0.000	267.951
(U) Aircraft Procurement (PE 0207219F) Advanced Tactical Fighter, P-1 Line Item #003**	4024.599	3763.848	2032.881	3197.146	2894.025	1694.514	0.000	0.000	34,099.816
(U) Munitions Procurement (PE 0207219F)	16.788	10.836	16.575	12.496	12.801	16.153	12.909	0.000	120.424
(U) F-22A Tactical Data Link RDT&E (PE 27445F)	35.526	95.557	88.099	52.175	38.626	34.714		0.000	344.697
(U) F-22A Adv Comm Systems Procurement (PE 27423F)						34.521	16.690	Continuing	TBD

**NOTE: Includes BP10, 11, 16, 19 and Advance Buy.

(U) **D. Acquisition Strategy**

The Raptor Enhancement Development & Integration (REDI) contract is an Indefinite Delivery/Indefinite Quantity Ordering contract that maximizes flexibility to start, stop, accelerate and decelerate projects based on funding. The REDI contract was established to be more responsive to evolving war fighter requirements. The REDI contract allows the issuance of orders for the highest priority war fighter capabilities in operationally meaningful capability increments, requirements analysis, contractor cost estimates and studies, development and demonstration of capability enhancements, and unanticipated future war fighter requirements. Each spiral is broken into phases. Phase A is to initiate requirements analysis, Phase B is the design phase and Phases C,D,E are the development, integration and verification phase of a specific spiral development effort. Separate delivery orders will be issued for each phase of a spiral. These separate delivery orders at these predetermined breakpoints allow the spiral effort to be tailored to the technology maturity, available funding and capability priority during the life of the program.

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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</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
Spiral development activities	Cost Plus		284.859	230.447	Dec-04	213.319	Dec-05	361.671	Dec-06	Continuing	TBD	
Air Vehicle Instrumentation support (Training and Test Instrumentation)	Cost Plus		0.250	3.501	Nov-04	18.540	Mar-06	8.000	Jan-07	Continuing	TBD	
System Engineering / Program Management	Cost Plus		67.411	32.937	Dec-04	35.752	Dec-05	41.030	Dec-06	Continuing	TBD	
F/A-22 Reliability and Maintainability Maturation Program (RAMMP)	Cost Plus					14.000	Jan-06	29.000	Jan-07	Continuing	TBD	
Not Applicable											0.000	
Subtotal Product Development			352.520	266.885		281.611		439.701		Continuing	TBD	0.000
Remarks:												
(U) <u>Support</u>												
Support Contracts	Various		6.233	7.885		10.567		10.751		Continuing	TBD	
In House Support										Continuing	TBD	
Not Applicable											0.000	
Subtotal Support			6.233	7.885		10.567		10.751		Continuing	TBD	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
AFFTC and Contractor	Various	Edwards AFB, CA		17.672	Apr-05	55.946	Nov-05	66.838	Nov-06	Continuing	TBD	
Replacement Test Aircraft (RTA) and Instrumentation	Fixed Price		9.870	25.927	Jan-06	25.000	Feb-06	67.000	Jan-07	Continuing	TBD	
Not Applicable											0.000	
Subtotal Test & Evaluation			9.870	43.599		80.946		133.838		Continuing	TBD	0.000
Remarks:												
(U) <u>Management</u>												
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			368.623	318.369		373.124		584.290		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

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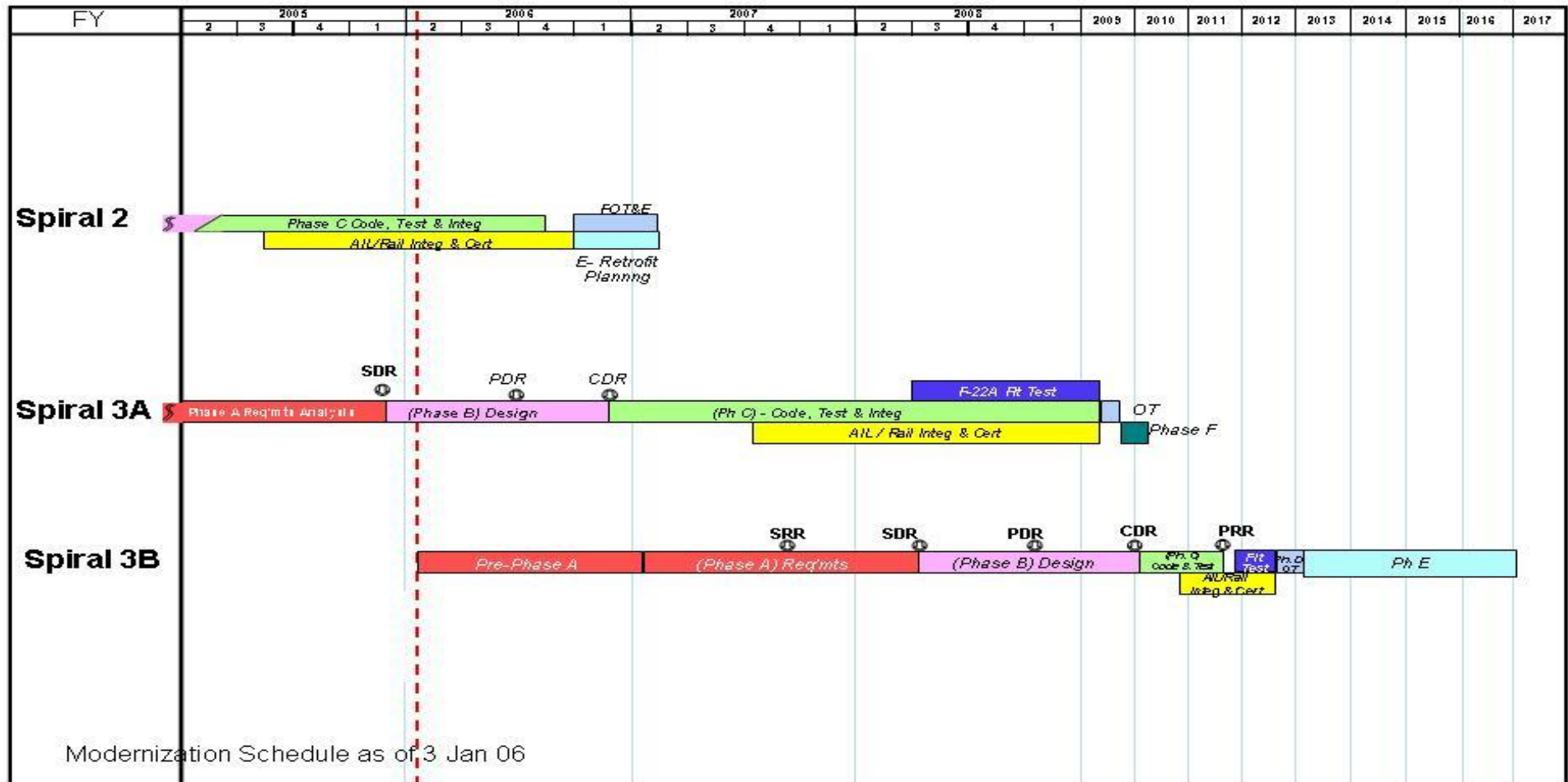
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Exhibit R-4a, RDT&E Schedule Detail

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(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) Initiate Spiral 2 Phase C, D & E (Development, Integration & Test)

2Q

(U) Complete Spiral 3a Phase A (Requirements Analysis)

1Q

(U) --Spiral 3a SDR

1Q

(U) Initiate Spiral 3a Phase B (Design)

1Q

(U) --Spiral 3a PDR

3Q

(U) --Spiral 3a CDR

1Q

(U) Initiate Spiral 3b Phase A (Requirements Analysis)

2Q

(U) --Spiral 3b SRR

4Q