

UNCLASSIFIED

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

| | |
|---|-------------------------|
| Exhibit R-2, RDT&E Budget Item Justification | DATE May 2009 |
|---|-------------------------|

| | |
|---|---|
| BUDGET ACTIVITY 07 Operational System Development | PE NUMBER AND TITLE 0207138F F-22 SQUADRONS |
|---|---|

| Cost (\$ in Millions) | FY 2008 Actual | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost to Complete | Total |
|---------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| Total Program Element (PE) Cost | 607.785 | 605.659 | 569.345 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| 4785 F-22 | 607.785 | 605.659 | 569.345 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |

(U) A. Mission Description and Budget Item Justification

The F-22 Raptor represents the USAF's top priority for providing the Joint Force with air dominance, operational access, and homeland and cruise missile defense for the next 20+ years. The F-22 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 Engineering and Manufacturing Development (EMD) phase of F-22 acquisition is complete. The program is now continuing the pre-planned modernization effort through incremental development phases that enhance the F-22 Global Strike capability.

The development program enhances the air vehicle, engine, and training system to improve/enhance F-22 weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

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

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

| | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> |
|--------------------------------------|----------------|----------------|----------------|
| (U) Previous President's Budget | 607.515 | 700.305 | 505.637 |
| (U) Current PBR/President's Budget | 607.785 | 605.659 | 569.345 |
| (U) Total Adjustments | 0.270 | -94.646 | |
| (U) Congressional Program Reductions | | -93.000 | |
| Congressional Rescissions | | -1.646 | |
| Congressional Increases | | | |
| Reprogrammings | 17.000 | | |
| SBIR/STTR Transfer | -16.730 | | |

(U) Significant Program Changes:

FY08: \$.3M increase due to \$17M reprogramming to support engines and Increment 3.2 Phase A development.

FY09: \$93M reduction due to FY09PB Congressional Marks: \$38M Engines, \$20M Lab Infrastructure, and \$35M Program Growth

FY10: \$64M increase due to F-22 Modernization, RAMMP, and Trainers Common Configuration.

Exhibit R-2a, RDT&E Project Justification

DATE
May 2009

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|---|-------------------|---------------------|---------------------|---------------------|---|---------------------|---------------------|--|---------------------|-------|
| BUDGET ACTIVITY 07 Operational System Development | | | | | PE NUMBER AND TITLE 0207138F F-22 SQUADRONS | | | PROJECT NUMBER AND TITLE 4785 F-22 | | |
| Cost (\$ in Millions) | FY 2008 Actual | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost to Complete | Total |
| 4785 F-22 | 607.785 | 605.659 | 569.345 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

(U) A. Mission Description and Budget Item Justification

The F-22 Raptor represents the USAF's top priority for providing the Joint Force with air dominance, operational access, and homeland and cruise missile defense for the next 20+ years. The F-22 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 Engineering and Manufacturing Development (EMD) phase of F-22 acquisition is complete. The program is now continuing the pre-planned modernization effort through incremental development phases that enhance the F-22 Global Strike capability.

The development program enhances the air vehicle, engine, and training system to improve/enhance F-22 weapons, communications, and Intelligence Surveillance Reconnaissance (ISR) capabilities.

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

| | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> |
|---|----------------|----------------|----------------|
| (U) Continue requirements definition and increment development activities for planned hardware and software capability upgrades. --Complete Increment 2 to develop Global Strike Conops basic capabilities. --Continue Increment 3 to develop Global Strike Conops enhanced capabilities. | 411.739 | 420.052 | 397.991 |
| (U) Continue System Engineering/Program Management Support | 16.485 | 15.000 | 15.920 |
| (U) Continue Air Vehicle Instrumentation support (Training and Test Instrumentation) | 2.100 | 0.700 | 0.000 |
| (U) Continue flight test and flight test support | 121.095 | 125.000 | 127.605 |
| (U) Continue mission support of the Program Office; travel, computer costs, misc contracts, etc. | 10.501 | 8.807 | 10.829 |
| (U) Continue F-22 Reliability and Maintainability Maturation Program (RAMMP) | 25.580 | 10.000 | 13.000 |
| (U) Initiate Aircraft Structural Integrity Program (ASIP) | 3.070 | 4.700 | 4.000 |
| (U) Replacement Test Aircraft (RTA) and Instrumentation | 17.215 | 21.400 | 0.000 |
| (U) Total Cost | 607.785 | 605.659 | 569.345 |

(U) C. Other Program Funding Summary (\$ in Millions)

| | <u>FY 2008</u> <u>Actual</u> | <u>FY 2009</u> <u>Estimate</u> | <u>FY 2010</u> <u>Estimate</u> | <u>FY 2011</u> <u>Estimate</u> | <u>FY 2012</u> <u>Estimate</u> | <u>FY 2013</u> <u>Estimate</u> | <u>FY 2014</u> <u>Estimate</u> | <u>FY 2015</u> <u>Estimate</u> | <u>Cost to</u> <u>Complete</u> | <u>Total Cost</u> |
|----------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------|
| (U) AF RDT&E (PE 0604239F) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 24,295.158 |

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| Exhibit R-2a, RDT&E Project Justification | DATE May 2009 |
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| BUDGET ACTIVITY 07 Operational System Development | PE NUMBER AND TITLE 0207138F F-22 SQUADRONS | PROJECT NUMBER AND TITLE 4785 F-22 |
|---|---|--|

(U) C. Other Program Funding Summary (\$ in Millions)

| | | | | | | | | | | | |
|-----|--|----------|----------|---------|-------|-------|-------|-------|-------|------------|-----------|
| (U) | PRTV II (6) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1,580.580 |
| (U) | F-22A Squadrons | | | | | | | | | | |
| | Procurement (3010) (PE 0207138F)* | 383.988 | 456.446 | 448.325 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| (U) | F-22A Squadrons | | | | | | | | | | |
| | Procurement (3080) (PE 0207138F) | 4.011 | 0.000 | 1.210 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| (U) | Military Construction (PE 0604239F) | 0.000 | 0.000 | 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 | 0.000 | 0.000 | 96.018 |
| (U) | Military Construction (PE 0207138F) | 57.439 | 197.750 | 39.153 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 496.660 |
| (U) | Aircraft Procurement (PE 0207219F) Advanced Tactical Fighter, P-1 Line Item #003** | 3554.447 | 3454.854 | 97.058 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| (U) | Munitions Procurement (PE 0207219F) | 12.574 | 12.829 | 15.933 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |
| (U) | Tactical Data Link RDT&E (PE 0207445F) | 57.424 | 57.264 | 72.106 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | TBD |

* NOTE: Includes PE 0207138F BP11, 12, 16, and 19 (Depot Activation)

** NOTE: Includes PE 0207219F BP10, 11, and 19 (Other Useful Loads)

(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 as required. 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 increment is broken into phases. Phase A is to initiate requirements analysis, Phase B is the design phase and Phases C, D, and E are the development, integration and verification phase of a specific incremental development effort. Separate delivery orders will be issued for various phases of an increment. These separate delivery orders at these predetermined breakpoints allow the modernization program 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

DATE

May 2009

| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | | | | PROJECT NUMBER AND TITLE | | | |
|---|------------------------------|--|--------------------------------------|--------------------------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|------------|-----------------------------|
| 07 Operational System Development | | | | 0207138F F-22 SQUADRONS | | | | | 4785 F-22 | | | |
| (U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions) | Contract Method & Type | Performing Activity & Location | Total Prior to FY 2008 Cost | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | FY 2010 Cost | FY 2010 Award Date | Cost to Complete | Total Cost | Target Value of Contract |
| (U) <u>Product Development</u> | | | | | | | | | | | | |
| Increment development activities | Cost Plus | Lockheed Martin | 1,035.813 | 411.739 | Dec-07 | 420.052 | Dec-08 | 397.991 | Dec-09 | Continuing | TBD | |
| Air Vehicle Instrumentation support (Training and Test Instrumentation) | Cost Plus | Lockheed Martin | 21.032 | 2.100 | Oct-07 | 0.700 | Oct-08 | 0.000 | | Continuing | TBD | |
| System Engineering / Program Management | Cost Plus | Lockheed Martin | 114.831 | 16.485 | Dec-07 | 15.000 | Dec-08 | 15.920 | Dec-09 | Continuing | TBD | |
| F-22A Reliability and Maintainability Maturation Program (RAMMP) | Cost Plus | Lockheed Martin | 41.641 | 25.580 | Dec-07 | 10.000 | Dec-08 | 13.000 | Dec-09 | Continuing | TBD | |
| Aircraft Structural Integrity Program (ASIP) | Cost Plus | Lockheed Martin | 0.000 | 3.070 | Dec-07 | 4.700 | Dec-08 | 4.000 | Dec-09 | Continuing | TBD | |
| Subtotal Product Development | | | 1,213.317 | 458.974 | | 450.452 | | 430.911 | | Continuing | TBD | 0.000 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Support</u> | | | | | | | | | | | | |
| Support Contracts | Various | | 33.938 | 10.501 | | 8.807 | | 10.829 | | Continuing | TBD | |
| Subtotal Support | | | 33.938 | 10.501 | | 8.807 | | 10.829 | | Continuing | TBD | 0.000 |
| Remarks: | | | | | | | | | | | | |
| (U) <u>Test & Evaluation</u> | | | | | | | | | | | | |
| AFFTC and Contractor Flight Test Support | Various | Lockheed Martin, Pratt & Whitney, and Edwards AFB | 165.784 | 121.095 | Nov-07 | 125.000 | Nov-08 | 127.605 | Nov-09 | Continuing | TBD | |
| Replacement Test Aircraft (RTA) and Instrumentation | Cost Plus / Fixed Price | Lockheed Martin | 73.335 | 17.215 | Dec-07 | 21.400 | Dec-08 | 0.000 | | 0.000 | 111.950 | 126.155 |
| Subtotal Test & Evaluation | | | 239.119 | 138.310 | | 146.400 | | 127.605 | | Continuing | TBD | 126.155 |
| 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 | | | 1,486.374 | 607.785 | | 605.659 | | 569.345 | | Continuing | TBD | 126.155 |

R-1 Line Item No. 134

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Project 4785

Exhibit R-3 (PE 0207138F)

Exhibit R-4, RDT&E Schedule Profile

DATE

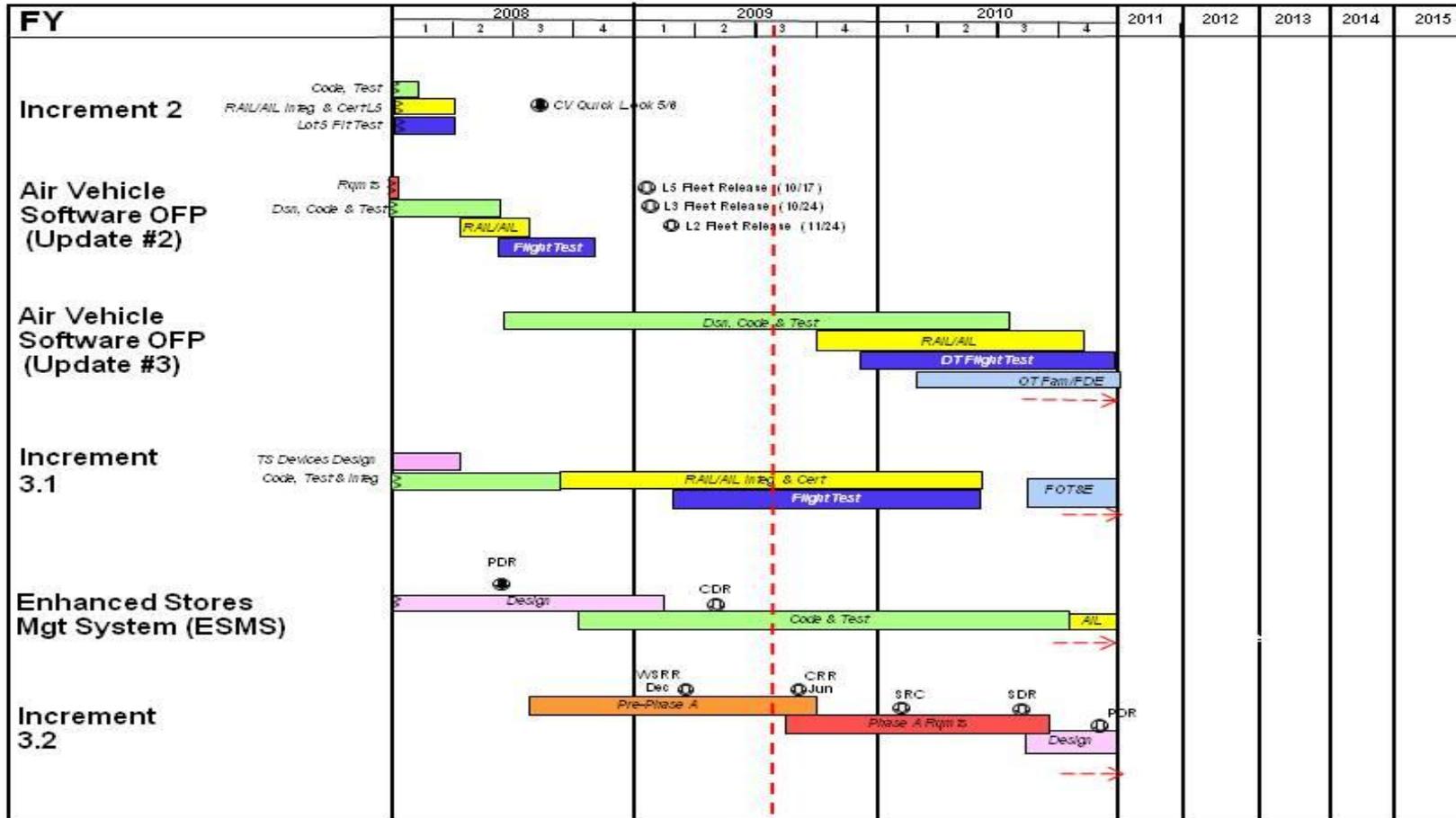
May 2009

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0207138F F-22 SQUADRONS

PROJECT NUMBER AND TITLE
4785 F-22

Modernization Schedule Summary



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Exhibit R-4a, RDT&E Schedule Detail

DATE

May 2009

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| BUDGET ACTIVITY 07 Operational System Development | PE NUMBER AND TITLE 0207138F F-22 SQUADRONS | PROJECT NUMBER AND TITLE 4785 F-22 |
|--|--|---|

| (U) <u>Schedule Profile</u> | <u>FY 2008</u> | <u>FY 2009</u> | <u>FY 2010</u> |
|---|----------------|----------------|----------------|
| (U) Complete Increment 2 Phase C, D, &E (Development, Integration & Test) | 2Q | | |
| (U) Complete Inc 3.1 Phase C | | | 2Q |
| (U) Initiate Increment 3.2 Pre-Phase A (Requirements Analysis) | 2Q | | |
| (U) --Increment 3.2 SRR | | 1Q | |
| (U) --Increment 3.2 CRR | | 3Q | |
| (U) Increment 3.2 Phase A Requirements | | 3Q | |
| (U) --Increment 3.2 SRC | | | 1Q |
| (U) --Increment 3.2 SDR | | | 3Q |
| (U) Increment 3.2 Design Phase | | | 3Q |
| (U) --Increment 3.2 PDR | | | 4Q |
| (U) Enhanced Stores Management System (ESMS) PDR | 2Q | | |
| (U) Initiate ESMS Phase C (Development, Integration, & Test) | 3Q | | |
| (U) ESMS CDR | | 2Q | |