| | · · | | | | | | | | | |
|---|-------------------------------------|--------------|----------|------------|-------------------|----------|----------|----------|----------|------------|
| | Exhib | oit R-2, RDT | &E Budge | t Item Jus | tification | | | DATE | February | 2006 |
| BUDGE | BUDGET ACTIVITY PE NUMBER AND TITLE | | | | | | - | | | |
| 05 System Development and Demonstration (SDD) | | | | | 0604239F F-22 EMD | | | | | |
| | Cost (6 's Millions) | | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | Cost to | Total |
| | Cost (\$ in Millions) | Actual | Estimate | Estimate | Estimate | Estimate | Estimate | Estimate | Complete | |
| | Total Program Element (PE) Cost | 211.815 | 75.117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 24,086.648 |
| 4069 | Advanced Tactical Fighter FSD | 211.815 | 75.117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 24,086.648 |

(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.

This program is in Budget Activity 5, System Development and Demonstration, because the F-22A Program is developing the next-generation air dominance fighter for the USAF to counter emerging worldwide threats.

EX7.2005

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

| | | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|--------------------------------------|----------------|----------------|----------------|
| ı | (U) Previous President's Budget | 208.143 | 76.203 | 0.000 |
| ı | (U) Current PBR/President's Budget | 211.815 | 75.117 | 0.000 |
| ı | (U) Total Adjustments | 3.672 | -1.086 | |
| ı | (U) Congressional Program Reductions | -0.001 | | |
| ı | Congressional Rescissions | -0.160 | -1.086 | |
| ı | Congressional Increases | | | |
| ı | Reprogrammings | 9.619 | | |
| ı | SBIR/STTR Transfer | -5.786 | | |
| | | | | |

(U) Significant Program Changes:

None

R-1 Shopping List - Item No. 69-1 of 69-6

| | Exh | nibit R-2a, R | RDT&E Pro | ject Justi | fication | | | DATE | February | 2006 |
|---|-------------------------------|---------------|-----------|------------|---------------------------------------|----------|--|----------|----------|------------|
| BUDGET ACTIVITY 05 System Development and Demonstration (SDD) | | | | | PE NUMBER AND 0604239F F-22 | | PROJECT NUMBER AND TITLE 4069 Advanced Tactical Fighter FS | | | ighter FSD |
| | Cost (\$ in Millions) | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | Cost to | Total |
| | Cost (\$\pi\$ in Minions) | Actual | Estimate | Estimate | Estimate | Estimate | Estimate | Estimate | Complete | |
| 4069 | Advanced Tactical Fighter FSD | 211.815 | 75.117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 24,086.648 |
| | Quantity of RDT&E Articles | 0 | 0 | (| 0 | 0 | 0 | 0 | | |

^{*} Total Cost includes \$3,779,811,000 of Demonstration and Validation funding prior to FY 1992 funded in PE 0603230F.

(U) A. Mission Description and Budget Item Justification

Project 4069

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.

This program is in Budget Activity 5, System Development and Demonstration, 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) | FY 2005 | FY 2006 | FY 2007 |
|-----|---|---------|---------|---------|
| (U) | Air Vehicle | 92.154 | 48.009 | |
| | - Completed full-scale airframe structual fatigue testing and analysis (NSP) | | | |
| | - Continue structural certification analysis activities. (NSP) | | | |
| | - Completed EMD flight test and flight test support. (NSP) | | | |
| | - Completed life extension NRE (early aircraft getting modified to get "full life"). (NSP) | | | |
| | - Initiated and completed technical support for Force Development Evaluation and Follow-on Operational Test and | | | |
| | Evaluation (NSP) | | | |
| (U) | Avionics | 40.122 | 23.050 | |
| | - Completed Avionics Integration Lab Block 3.1.3 Integration. (NSP) | | | |
| | - Completed DMS redesign, requalification and retesting activities. (NSP) | | | |
| | - Complete EMD OFP development and testing. (NSP) - Initiated and completed technical support for Force | | | |
| | Development Evaluation and Follow-on Operational Test and Evaluation (NSP) | | | |
| (U) | Engine | 20.380 | 2.200 | |
| | - Completed support and test of flight test engines (25 total). (NSP) | | | |
| (U) | Other Government Cost | 59.159 | 1.858 | |
| | - Complete flight test and flight test support at Edwards AFB. | | | |
| | - Mission support of the SPO; travel, computer costs, misc contracts, etc. | | | |
| (U) | Total Cost | 211.815 | 75.117 | 0.000 |
| | | | | |
| | | | | |
| | | | | |

Exhibit R-2a (PE 0604239F)

| | Exhibit R-2a, RDT&E Project Justification | | | | | | | | DATE February 2006 | | | |
|-------|--|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---|---------------------|------------|--|--|
| - | DGET ACTIVITY System Development and Demonstration (SDD) PE NUMBER 0604239F | | | | | | | PROJECT NUMBER AND TITLE 4069 Advanced Tactical Fighter FSD | | | | |
| (U) | C. Other Program Funding Summ | nary (\$ in Millio | ons) | | | | | | | | | |
| | | 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 Cost | | |
| (U) | PRTV II (6) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1,580.580 | | |
| (U) | F/A-22 Squadrons RDT&E (PE 0207138F) | 318.369 | 373.124 | 584.290 | 620.560 | 326.994 | 203.724 | 202.257 | Continuing | TBD | | |
| (U) | F/A-22 Squadrons (3010) Procurement (PE 0207138F) | 95.187 | 78.489 | 262.906 | 300.218 | 285.885 | 170.679 | 398.246 | Continuing | TBD | | |
| (U) | F/A-22 Squadrons (3080) Procurement (PE 0207138F) | 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 | 65.000 | | |
| (U) | Military Construction (PE 0207219F) | 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/A-22 Adv Comm Sys Procurement (PE 27445F) | | | 0.000 | 0.000 | 0.000 | 34.521 | 16.690 | Continuing | TBD | | |
| (U) | F/A-22 Tactical Data Link RDT&E (PE 27445F) | 35.526 | 95.557 | 88.099 | 52.175 | 38.626 | 34.714 | 0.000 | | 344.697 | | |
| (T.T) | D. A agraigition Cturateon | | | | | | | | | | | |

(U) D. Acquisition Strategy

The EMD contract is Cost Plus Award Fee with Lockheed Martin Aeronautical Systems (LMAS) to produce the F-22A air vehicle and Pratt & Whitney (P&W) to produce the F119 engines. The engines are provided to LMAS as GFE.

Project 4069 R-1 Shopping List - Item No. 69-3 of 69-6

Exhibit R-2a (PE 0604239F)

| | E | xhibit R- | 3, RDT&E F | Project Co | st Anal | ysis | | | | DA | ATE Feb | ruary 20 | 006 |
|-----|---|------------------------|-------------------------------------|-----------------------------|------------------|--------------------------|-----------------------|--------------------------|-----------------|--------------------------|------------------------------|---------------------|-----------------------------|
| _ | GET ACTIVITY System Development and Demonst | ration (SD | D) | | | UMBER AN 1239F F-2 | | | | | IUMBER AN anced Ta | D TITLE | |
| | Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions) | Contract Method & Type | Performing Activity & Location | Total Prior to FY 2005 Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost to Complete | Total Cost | Target Value of Contract |
| (U) | Product Development Lockheed (Air Veh) | C/CPAF | Lockheed Martin, Marietta, GA | 16,311.177 | 115.305 | Aug-91 | 68.698 | Aug-91 | | | 0.000 | 0.000 | 14,727.198 |
| | Pratt & Whitney | C/CPFF | Pratt & Whitney, Hartford, CT | 2,488.917 | 12.880 | Aug-91 | | | | | 0.000 | 2,501.797 | 2,388.171 |
| | GFE Subtotal Product Development Remarks: | Various | Hartford, C1 | 65.899 2,570.816 | 0.254 128.439 | | 68.698 | | 0.000 | | 0.000 0.000 | 66.153 2,567.950 | 17,115.369 |
| | <u>Support</u> Mission Support Subtotal Support Remarks: | Various | | 165.200 165.200 | 8.797 8.797 | | 0.000 0.000 | | 0.000 | | 0.000 0.000 | 173.997 173.997 | 0.000 |
| (U) | Test & Evaluation AEDC | PO | Arnold AFB, | 158.000 | | | | | | | 0.000 | 158.000 | |
| | AFFTC | PO | Edwards AFB, CA | 729.637 | 50.523 | Nov-04 | | | | | 0.000 | 780.160 | |
| | All Other Tests Not Applicable | Various | CH | 101.075 | 24.056 | | 6.419 | | 0.000 | | 0.000 0.000 | 131.550 0.000 | |
| | Subtotal Test & Evaluation Remarks: | | | 988.712 | 74.579 | | 6.419 | | 0.000 | | 0.000 | 1,069.710 | 0.000 |
| | Management Subtotal Management | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | |
| (U) | Remarks: Total Cost | | | 3,724.728 | 211.815 | | 75.117 | | 0.000 | | 0.000 | 3,811.657 | 17,115.369 |
| | NOTE: Total program cost for Engineering and Ma | anufacturing Do | evelopment only. I | Ooes not include \$ | 83,779,811,0 | 00 of Demon | stration and \ | alidation fur | ding prior to | FY92. | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Pro | eject 4069 | | ı | R-1 Shopping Li | ist - Item No | o. 69-4 of 69 | -6 | | | | Exh | nibit R-3 (PE | 0604239F) |

DATE **Exhibit R-4, RDT&E Schedule Profile** February 2006 PE NUMBER AND TITLE PROJECT NUMBER AND TITLE BUDGET ACTIVITY 05 System Development and Demonstration (SDD) 0604239F F-22 EMD 4069 Advanced Tactical Fighter FSD **Program Overview** (FY07 PB) FY 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 Milestone I (750 a/c) OT&E Phase 1 (Oct 03) Dem/Val Start Major Aircraft Review IOT&E Start (Apr 04) Milestones Milestone II (648 a/c) Full Rate Production Decision (Mar 05) EMD Start Bottom Up Review (442 a/c) FOT&E Complete (Dec 05) QDR (339 a/c) IOC (Dec 05) LRIP Authorization YF -22 First Flight 9/90 Demonstration / Validation YF -23 First Flight 8/90 First Right EMD Engineering and 9 Flight Aircraft T&F/ Manufacturing OT&F (1 Static and 1 Fatigue Aircraft) Development 183 Aircraft * (381+ Obj) PRTVI RIP (1-5) FRP (6-9) Assembly **Test Vehicles** 8 Aircraft PRTV II 6 Lot Delivery Quantities* 10 13 21 22 24 24 20 20 20 **Production Deliveries** 1 2 3 4 5 6 7 8 9 Spiral Roadmap 02 AS () May 05 Jan 03 Sep 03 Beddown PRTV = Production Representative Test Vehicle Tyndall Langley Elmendorf Ops 3 Nellis *Lot 6 buy includes one test aircraft Exhibit R-4 (PE 0604239F) Project 4069 R-1 Shopping List - Item No. 69-5 of 69-6

| Exhibit R-4a, RDT& | DATE February 2006 | |
|--|---|--|
| BUDGET ACTIVITY 05 System Development and Demonstration (SDD) | PE NUMBER AND TITLE 0604239F F-22 EMD | PROJECT NUMBER AND TITLE 4069 Advanced Tactical Fighter FS |
| (U) Schedule Profile (U) IOT&E Complete | FY 2005 2Q | FY 2006 FY 2007 |
| (U) FDE Start (U) FDE Complete (U) FOT&E Start | 2Q 4Q | 1Q |
| (U) FOT&E Complete | | 1Q |
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| Project 4069 R- | 1 Shopping List - Item No. 69-6 of 69-6 | Exhibit R-4a (PE 0604239) |