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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force | <b>DATE:</b> February 2012 |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b>                                                                                       |                |                |                     | <b>R-1 ITEM NOMENCLATURE</b>                                 |                      |                |                |                |                |                         |                   |
|----------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------------------------------------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> |                |                |                     | PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> |                      |                |                |                |                |                         |                   |
| <b>COST (\$ in Millions)</b>                                                                                               | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b>                                           | <b>FY 2013 Total</b> | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b> | <b>Cost To Complete</b> | <b>Total Cost</b> |
| Total Program Element                                                                                                      | 7.794          | 21.780         | 6.583               | -                                                            | 6.583                | 9.209          | 16.299         | 67.178         | 326.704        | Continuing              | Continuing        |
| 654102: <i>Joint Primary Aircraft Training System (JPATS)</i>                                                              | 3.598          | 4.720          | 3.836               | -                                                            | 3.836                | 2.327          | 3.795          | 2.398          | 2.430          | Continuing              | Continuing        |
| 654376: <i>T-38 Avionics Upgrade Program (AUP)</i>                                                                         | 1.110          | 1.151          | 1.146               | -                                                            | 1.146                | 0.902          | 0.958          | 1.053          | 1.144          | Continuing              | Continuing        |
| 655340: <i>Advanced Trainer Replacement T-X</i>                                                                            | 3.086          | 15.909         | 1.601               | -                                                            | 1.601                | 5.980          | 11.546         | 63.727         | 323.130        | Continuing              | Continuing        |

**Note**

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. The Cost to Complete and Total Cost on the R2 are entered as "Continuing" and not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding.

**A. Mission Description and Budget Item Justification**

Supports Air Education and Training Command's (AETC) implementation of Specialized Undergraduate Pilot Training (SUPT) and the Department of Defense initiative for joint pilot training. The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34 respectively) and their associated Ground Based Training Systems (GBTS) with the T-6 and its GBTS. The Air Force is the Executive Service. The T-38 AUP is an integrated modernization of the T-38A and AT-38B cockpits to support mission ready fighter and bomber training. The Advanced Trainer Replacement (T-X) program is a replacement for the T-38 trainer aircraft used in the advanced fighter/bomber SUPT track.

Provides for development and test of upgrades and enhancements to aircraft and the Ground Based Training System (GBTS) hardware and software components.

Provides for studies and development of the next generation of advanced fighter/bomber pilot trainer aircraft and GBTS.

This program element is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the missionization of commercial derivative and essentially non-developmental aircraft, equipment, and components.

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Air Force | <b>DATE:</b> February 2012 |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b> | <b>FY 2013 Total</b> |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 8.066          | 21.780         | 12.662              | -                  | 12.662               |
| Current President's Budget                        | 7.794          | 21.780         | 6.583               | -                  | 6.583                |
| Total Adjustments                                 | -0.272         | -              | -6.079              | -                  | -6.079               |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -              | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -0.231         | -              |                     |                    |                      |
| • Other Adjustments                               | -0.041         | -              | -6.079              | -                  | -6.079               |

**Change Summary Explanation**

FY2011 Other Adjustments includes a Congressional General Reduction of \$41 thousand.

FY2013 includes a reduction in funding for Advanced Pilot Training to delay the Initial Operational Capability (IOC) from FY2017 to approximately FY2020.

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force                                                                          |         |         |              |                                                                                |               |         |         |                                                                   | DATE: February 2012 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD) |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604233F: Specialized Undergraduate Pilot Training |               |         |         | PROJECT<br>654102: Joint Primary Aircraft Training System (JPATS) |                     |                  |            |
| COST (\$ in Millions)                                                                                                                 | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                                    | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                                           | FY 2017             | Cost To Complete | Total Cost |
| 654102: Joint Primary Aircraft Training System (JPATS)                                                                                | 3.598   | 4.720   | 3.836        | -                                                                              | 3.836         | 2.327   | 3.795   | 2.398                                                             | 2.430               | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                                                                            | 0       | 0       | 0            | 0                                                                              | 0             | 0       | 0       | 0                                                                 | 0                   |                  |            |

**A. Mission Description and Budget Item Justification**

The Joint Primary Aircraft Training System (JPATS) is a joint USAF/USN venture to replace the Services' fleets of primary trainer aircraft (T-37 and T-34, respectively) and associated Ground Based Training Systems (GBTS). The T-6 aircraft and GBTS are used to train entry-level student aviators in the fundamentals of flying so they can transition into advanced training tracks leading to qualification as military pilots, combat systems officers, and naval flight officers. The program includes the purchase of aircraft, simulators, and other associated ground-based training devices, Training Integration Management System (TIMS), instructional courseware, and logistics support to include Diminishing Manufacturing Sources and Material Shortages (DMSMS) and development activities related to DMSMS. FY2013-FY2017 JPATS funding will be used to develop and test upgrades and enhancements to hardware and software components.

FY2011, FY2013 and FY2015 include funding to upgrade software and threat libraries for the Simulator for Electronic Combat Technology (SECT), a generic electronic warfare simulator used to train student combat systems officers. Although in the same project, SECT is unrelated to the JPATS program.

This program element is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the missionization of commercial derivative aircraft, equipment, and components.

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

|                                                                                                                                                                                                                                                            | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b> | <b>FY 2013 Total</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| <b>Title:</b> JPATS                                                                                                                                                                                                                                        | 2.105          | 4.720          | 2.340               | -                  | 2.340                |
| <b>Description:</b> JPATS studies & development efforts                                                                                                                                                                                                    |                |                |                     |                    |                      |
| <b>FY 2011 Accomplishments:</b><br>JPATS studies and development activities such as parachute surveillance study.                                                                                                                                          |                |                |                     |                    |                      |
| <b>FY 2012 Plans:</b><br>JPATS studies and development activities to include development of a T-6 Power Management Unit (PMU) software upgrade, parachute surveillance, safe/arm handle development, and engine Component Improvement Program (CIP) study. |                |                |                     |                    |                      |
| <b>FY 2013 Base Plans:</b>                                                                                                                                                                                                                                 |                |                |                     |                    |                      |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force                                                                                                                                                                                                                                                                  |         |         |              |                                                                                |               |         |         |                                                                   | DATE: February 2012 |                  |               |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD)                                                                                                                                                                                         |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604233F: Specialized Undergraduate Pilot Training |               |         |         | PROJECT<br>654102: Joint Primary Aircraft Training System (JPATS) |                     |                  |               |
| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                          |         |         |              |                                                                                |               |         | FY 2011 | FY 2012                                                           | FY 2013 Base        | FY 2013 OCO      | FY 2013 Total |
| JPATS studies and development activities to include development of the T-6 Power Management Unit (PMU) software upgrade, parachute surveillance, safe/arm handle, and engine Component Improvement Program (CIP) studies.<br><br>FY 2013 OCO Plans:<br>N/A                                                                    |         |         |              |                                                                                |               |         |         |                                                                   |                     |                  |               |
| Title: SECT<br><br>Description: Simulator for Electronic Combat Technology (SECT)<br><br>FY 2011 Accomplishments:<br>Update threat database definitions and threat library<br><br>FY 2012 Plans:<br>N/A<br><br>FY 2013 Base Plans:<br>Update threat database definitions and threat library.<br><br>FY 2013 OCO Plans:<br>N/A |         |         |              |                                                                                |               |         | 1.493   | -                                                                 | 1.496               | -                | 1.496         |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                    |         |         |              |                                                                                |               |         | 3.598   | 4.720                                                             | 3.836               | -                | 3.836         |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                                                                                                                                             |         |         |              |                                                                                |               |         |         |                                                                   |                     |                  |               |
| Line Item                                                                                                                                                                                                                                                                                                                     | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                                    | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                                           | FY 2017             | Cost To Complete | Total Cost    |
| • APAF, PE 0804740F, JPATS Initial...: JPATS Initial Spares                                                                                                                                                                                                                                                                   | 0.454   | 1.944   | 0.021        | 0.000                                                                          | 0.021         | 0.824   | 0.838   | 0.847                                                             | 0.861               | Continuing       | Continuing    |
| • APAF, PE 0804740F, JPATS Modific...: JPATS Modifications                                                                                                                                                                                                                                                                    | 24.508  | 15.086  | 15.494       | 0.000                                                                          | 15.494        | 10.027  | 12.471  | 12.800                                                            | 13.632              | Continuing       | Continuing    |
| • APAF, PE 0804740F, JPATS Post Pr...: JPATS Post Production Support                                                                                                                                                                                                                                                          | 9.398   | 0.000   | 0.000        | 0.000                                                                          | 0.000         | 0.000   | 0.000   | 0.000                                                             | 0.000               | 0.000            | 9.398         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |         |                 |                                                                                |                  |         |         |                                                                   | DATE: February 2012 |                     |            |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |         |                 | R-1 ITEM NOMENCLATURE<br>PE 0604233F: Specialized Undergraduate Pilot Training |                  |         |         | PROJECT<br>654102: Joint Primary Aircraft Training System (JPATS) |                     |                     |            |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |         |                 |                                                                                |                  |         |         |                                                                   |                     |                     |            |
| Line Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FY 2011 | FY 2012 | FY 2013<br>Base | FY 2013<br>OCO                                                                 | FY 2013<br>Total | FY 2014 | FY 2015 | FY 2016                                                           | FY 2017             | Cost To<br>Complete | Total Cost |
| • APN, PE 0804745N, JPATS<br>Acquisition: JPATS USN Weapon System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 26.100  | 256.906 | 278.884         | 0.000                                                                          | 278.884          | 289.950 | 15.959  | 0.110                                                             | 0.126               | Continuing          | Continuing |
| • APN, PE 0804745N, JPATS<br>Modifica...: JPATS USN Modifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.821   | 0.524   | 1.552           | 0.000                                                                          | 1.552            | 1.579   | 1.606   | 1.650                                                             | 1.679               | Continuing          | Continuing |
| • APN, PE 0804745N, JPATS<br>Initial ...: JPATS USN Initial Spares                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000   | 7.285   | 7.434           | 0.000                                                                          | 7.434            | 12.022  | 0.000   | 0.000                                                             | 0.000               | 0.000               | 76.841     |
| D. Acquisition Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |                 |                                                                                |                  |         |         |                                                                   |                     |                     |            |
| JPATS was competitively awarded with the intent of maximizing the use of commercially available equipment and best commercial practices. Initially, the JPATS Program competitively awarded two contracts: a Firm Fixed Price Contractor Logistics Support (CLS) Operations and Maintenance funded contract and a Fixed Price Incentive Firm Target (FPIF) manufacturing development (MD)/production contract with seven options. The FY2002 (Lots 9-13) production contract for both the air vehicle and GBTS is Firm Fixed Price, FAR Part 12 (commercial). The FY2007 production follow-on contract for both the air vehicle and GBTS was awarded as a FAR Part 15 action. |         |         |                 |                                                                                |                  |         |         |                                                                   |                     |                     |            |
| The SECT upgrade effort is an Engineering Change Proposal (ECP) to the competitively awarded Firm Fixed Price Contractor Logistics Support (CLS) contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |         |                 |                                                                                |                  |         |         |                                                                   |                     |                     |            |
| 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-4, RDT&E Schedule Profile: PB 2013 Air Force                                               |                                                       | DATE: February 2012                                    |
| APPROPRIATION/BUDGET ACTIVITY                                                                        | R-1 ITEM NOMENCLATURE                                 | PROJECT                                                |
| 3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD) | PE 0604233F: Specialized Undergraduate Pilot Training | 654102: Joint Primary Aircraft Training System (JPATS) |
|                                                                                                      |                                                       |                                                        |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force                                                                                                 |                                                                                              |                                                                                 | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> | <b>PROJECT</b><br>654102: <i>Joint Primary Aircraft Training System (JPATS)</i> |                            |

## Schedule Details

| Events                                                     | Start   |      | End     |      |
|------------------------------------------------------------|---------|------|---------|------|
|                                                            | Quarter | Year | Quarter | Year |
| JPATS Parachute Surveillance System Development            | 1       | 2012 | 1       | 2015 |
| JPATS Engine Studies                                       | 3       | 2012 | 4       | 2017 |
| JPATS Power Management Unit (PMU) Software Upgrade         | 2       | 2012 | 3       | 2014 |
| Award JPATS Lot 18 Contract Option                         | 2       | 2012 | 2       | 2012 |
| Award JPATS Lot 19 Contract Option                         | 1       | 2013 | 1       | 2013 |
| JPATS Safe Arm Handle Development                          | 1       | 2012 | 4       | 2013 |
| JPATS IOC NAS Corpus Christi                               | 1       | 2013 | 2       | 2013 |
| Award JPATS Lot 20 Contract Option                         | 1       | 2014 | 1       | 2014 |
| Continue USN T-6B Deliveries                               | 1       | 2011 | 2       | 2015 |
| Continue USN T-6B Aircrew Training Device (ATD) Deliveries | 1       | 2011 | 4       | 2013 |
| Update SECT Software and Threat Library (FY2011)           | 1       | 2012 | 4       | 2012 |
| Update SECT Software and Threat Library (FY2013)           | 3       | 2013 | 1       | 2014 |
| Update SECT Software and Threat Library (FY2015)           | 3       | 2015 | 1       | 2016 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force                                                                          |         |         |              |                                                                                |               |         |         |                                                        | DATE: February 2012 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD) |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604233F: Specialized Undergraduate Pilot Training |               |         |         | PROJECT<br>654376: T-38 Avionics Upgrade Program (AUP) |                     |                  |            |
| COST (\$ in Millions)                                                                                                                 | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                                    | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                                | FY 2017             | Cost To Complete | Total Cost |
| 654376: T-38 Avionics Upgrade Program (AUP)                                                                                           | 1.110   | 1.151   | 1.146        | -                                                                              | 1.146         | 0.902   | 0.958   | 1.053                                                  | 1.144               | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                                                                            | 0       | 0       | 0            | 0                                                                              | 0             | 0       | 0       | 0                                                      | 0                   |                  |            |

**A. Mission Description and Budget Item Justification**

The T-38C Avionics Upgrade Program (AUP) installed a "Glass Cockpit" in the T-38 upgrading T-38A/B models to T-38C models. The AUP modification, which utilizes a Commercial Off-The-Shelf (COTS)/Non-Developmental Item (NDI) approach to acquire kits, is currently in sustainment phase and requires regular block upgrades to incorporate software, hardware improvements, and new requirements as mandated by Department of Defense, Federal Aviation Administration and National Aerospace System (DoD/FAA/NAS) and flight safety issues into both the aircraft and Aircrew Training Devices (ATD). This effort also includes support to obtain Joint Mission Planning System (JMPS) certification associated with each block upgrade. Further, engineering services, studies, analysis and support to determine the feasibility of incorporating changes for making informed lifecycle cost business decisions based on Diminishing Manufacturing Resources and Material Shortages (DMSMS).

This project is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the missionization of NDI or COTS equipment and components.

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b> | <b>FY 2013 Total</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| <b>Title:</b> T-38 AUP                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.110          | 1.151          | 1.146               | -                  | 1.146                |
| <b>Description:</b> T-38 Avionics Upgrade Program (AUP) block software upgrades                                                                                                                                                                                                                                                                                                                                                                          |                |                |                     |                    |                      |
| <b>FY 2011 Accomplishments:</b><br>Continued development of Block 9 AUP aircraft and ATD hardware/software upgrades, mission planning software, requirements driven by DoD/FAA/NAS mandates, and/or improvements identified during Test and Evaluation and AETC operations. Supported OGC, A&AS and Travel in FY11                                                                                                                                       |                |                |                     |                    |                      |
| <b>FY 2012 Plans:</b><br>Complete test and fielding of Block 9 aircraft and Aircrew Training Device (ATD) hardware/software upgrades and JMPS mission planning software. Begin requirements definition of Block 10. Develop and replace proprietary ATD software with Government Purpose rights to ensure future viability of the aircraft and ATD systems. Design and develop hardware and software solution for requirements driven by DoD and FAA/NAS |                |                |                     |                    |                      |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force                                                                                            |  |                                                                                              |  | <b>DATE:</b> February 2012                                           |  |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> |  | <b>PROJECT</b><br>654376: <i>T-38 Avionics Upgrade Program (AUP)</i> |  |

  

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| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>FY 2011</b> | <b>FY 2012</b> | <b>FY 2013 Base</b> | <b>FY 2013 OCO</b> | <b>FY 2013 Total</b> |
| <p>mandates, and improvements identified during test and evaluation and AETC operations. Provide travel, OGC and A&amp;AS costs related to software development activities.</p> <p><b><i>FY 2013 Base Plans:</i></b><br/>           Complete requirement definition and begin development of Block 10 aircraft and Aircrew Training Device (ATD) hardware/software upgrades and JMPS mission planning software. Develop and replace proprietary ATD software with Government Purpose rights to ensure future viability of the aircraft and ATD systems. Design and develop hardware and software solution for requirements driven by DoD and FAA/NAS mandates, and improvements identified during test and evaluation and AETC operations. Provide travel, OGC and A&amp;AS costs related to software development activities.</p> <p><b><i>FY 2013 OCO Plans:</i></b><br/>           N/A</p> |                |                |                     |                    |                      |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.110          | 1.151          | 1.146               | -                  | 1.146                |

  

|                                                          |                         |                       |                       |                            |                           |                             |                       |                       |                       |                       |                                |                          |
|----------------------------------------------------------|-------------------------|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------------|--------------------------|
| <b>C. Other Program Funding Summary (\$ in Millions)</b> |                         |                       |                       |                            |                           |                             |                       |                       |                       |                       |                                |                          |
|                                                          | <u><b>Line Item</b></u> | <u><b>FY 2011</b></u> | <u><b>FY 2012</b></u> | <u><b>FY 2013 Base</b></u> | <u><b>FY 2013 OCO</b></u> | <u><b>FY 2013 Total</b></u> | <u><b>FY 2014</b></u> | <u><b>FY 2015</b></u> | <u><b>FY 2016</b></u> | <u><b>FY 2017</b></u> | <u><b>Cost To Complete</b></u> | <u><b>Total Cost</b></u> |
| •                                                        | N/A: N/A                | 0.000                 | 0.000                 | 0.000                      | 0.000                     | 0.000                       | 0.000                 | 0.000                 | 0.000                 | 0.000                 | Continuing                     | Continuing               |

  

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| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| T-38 block updates are cost plus award fee options through block 9 under a contract negotiated in FY 2004, which terminates in FY12. The AUP program sustainment effort will continue through a competitive bid, Lowest Price Technically Acceptable (LPTA), C type contract from FY12 through FY17, awarded in FY12. Upon the competitive award of the AUP sustainment efforts in FY2012, software updates will be firm fixed price unless the Government negotiates an out of cycle update that is not within scope of the sustainment contract |

  

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| <b>E. Performance Metrics</b>                                                                                                                                                                                                                      |
| 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-4, RDT&E Schedule Profile: PB 2013 Air Force                                               |                                                       | DATE: February 2012                         |
| APPROPRIATION/BUDGET ACTIVITY                                                                        | R-1 ITEM NOMENCLATURE                                 | PROJECT                                     |
| 3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD) | PE 0604233F: Specialized Undergraduate Pilot Training | 654376: T-38 Avionics Upgrade Program (AUP) |
|                                                                                                      |                                                       |                                             |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force                                                                                                 |                                                                                              |                                                                      | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> | <b>PROJECT</b><br>654376: <i>T-38 Avionics Upgrade Program (AUP)</i> |                            |

## Schedule Details

| Events                            | Start   |      | End     |      |
|-----------------------------------|---------|------|---------|------|
|                                   | Quarter | Year | Quarter | Year |
| AUP Block 8 Release               | 1       | 2011 | 1       | 2011 |
| AUP Block 8 Fielding              | 1       | 2011 | 1       | 2011 |
| AUP Block 9 Design/Development    | 1       | 2011 | 1       | 2012 |
| AUP Block 9 Integration and Test  | 1       | 2012 | 4       | 2012 |
| AUP Block 9 Fielding              | 4       | 2012 | 4       | 2012 |
| AUP Block 9 Release               | 4       | 2012 | 4       | 2012 |
| AUP Block 10 Requirements         | 1       | 2011 | 4       | 2011 |
| AUP Block 10 Requirements II      | 4       | 2012 | 2       | 2013 |
| AUP Block 10 Design/Development   | 2       | 2013 | 2       | 2015 |
| AUP Block 10 Integration and Test | 2       | 2015 | 1       | 2016 |
| AUP Block 10 Fielding             | 1       | 2016 | 2       | 2016 |
| AUP Block 10 Release              | 1       | 2016 | 1       | 2016 |
| AUP Block 11 Requirements         | 2       | 2017 | 4       | 2017 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force                                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |              |                                                                                |               |         |         |                                                     | DATE: February 2012 |                  |             |               |
| APPROPRIATION/BUDGET ACTIVITY<br>3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD)                                                                                                                                                                                                                                                                                                                                            |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604233F: Specialized Undergraduate Pilot Training |               |         |         | PROJECT<br>655340: Advanced Trainer Replacement T-X |                     |                  |             |               |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                                    | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                             | FY 2017             | Cost To Complete | Total Cost  |               |
| 655340: Advanced Trainer Replacement T-X                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.086   | 15.909  | 1.601        | -                                                                              | 1.601         | 5.980   | 11.546  | 63.727                                              | 323.130             | Continuing       | Continuing  |               |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0       | 0       | 0            | 0                                                                              | 0             | 0       | 0       | 0                                                   | 0                   |                  |             |               |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                             |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| The Advanced Trainer Replacement, T-X, will replace the USAF T-38 aircraft and associated Ground Based Training System (GBTS) currently used in the fighter/ bomber advanced Specialized Undergraduate Pilot Training (SUPT) track as well as in the Introduction to Fighter Fundamentals (IFF) program. The T-38 was first introduced in 1961. FY13 will consist of studies and acquisition activities to support future technology, engineering and manufacturing development. |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| This project is in Budget Activity 5, System Development and Demonstration (SDD), because it primarily involves the missionization of essentially non-developmental aircraft, equipment, and components.                                                                                                                                                                                                                                                                         |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                             |         |         |              |                                                                                |               |         |         | FY 2011                                             | FY 2012             | FY 2013 Base     | FY 2013 OCO | FY 2013 Total |
| Title: Advanced Pilot Training (APT) Family of Systems (FoS)                                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |              |                                                                                |               |         |         | 3.086                                               | 15.909              | 1.601            | -           | 1.601         |
| Description: Conduct studies, analysis and acquisition activities to support technology, engineering and manufacturing development.                                                                                                                                                                                                                                                                                                                                              |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| FY 2011 Accomplishments:<br>Conduct studies, analysis and acquisition activities to support technology, engineering and manufacturing development.                                                                                                                                                                                                                                                                                                                               |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| FY 2012 Plans:<br>Conduct studies, analysis and acquisition activities to support technology, engineering and manufacturing development.                                                                                                                                                                                                                                                                                                                                         |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| FY 2013 Base Plans:<br>Conduct studies, analysis and acquisition activities to support technology, engineering and manufacturing development.                                                                                                                                                                                                                                                                                                                                    |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| FY 2013 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |         |              |                                                                                |               |         |         |                                                     |                     |                  |             |               |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |              |                                                                                |               |         |         | 3.086                                               | 15.909              | 1.601            | -           | 1.601         |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Air Force                                                                                                                                                                                                             |                |                |                               |                                                                                              |                                |                |                |                                                                   |                | <b>DATE:</b> February 2012        |                   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i>                                                                                                                  |                |                |                               | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> |                                |                |                | <b>PROJECT</b><br>655340: <i>Advanced Trainer Replacement T-X</i> |                |                                   |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                            |                |                |                               |                                                                                              |                                |                |                |                                                                   |                |                                   |                   |
| <u>Line Item</u>                                                                                                                                                                                                                                                                    | <u>FY 2011</u> | <u>FY 2012</u> | <u>FY 2013</u><br><u>Base</u> | <u>FY 2013</u><br><u>OCO</u>                                                                 | <u>FY 2013</u><br><u>Total</u> | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016</u>                                                    | <u>FY 2017</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |
| • O&MAF 0804741F,<br>Undergradua...: <i>Undergraduate Pilot Training</i>                                                                                                                                                                                                            | 1.500          | 0.000          | 0.000                         | 0.000                                                                                        | 0.000                          | 0.000          | 0.000          | 0.000                                                             | 0.000          | 0.000                             | 3.000             |
| <b>D. Acquisition Strategy</b><br>A full and open competitive source selection is anticipated with a specific acquisition strategy to be determined.                                                                                                                                |                |                |                               |                                                                                              |                                |                |                |                                                                   |                |                                   |                   |
| <b>E. Performance Metrics</b><br>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-4, RDT&E Schedule Profile: PB 2013 Air Force                                               |                                                       | DATE: February 2012                      |
| APPROPRIATION/BUDGET ACTIVITY                                                                        | R-1 ITEM NOMENCLATURE                                 | PROJECT                                  |
| 3600: Research, Development, Test & Evaluation, Air Force<br>BA 5: Development & Demonstration (SDD) | PE 0604233F: Specialized Undergraduate Pilot Training | 655340: Advanced Trainer Replacement T-X |
|                                                                                                      |                                                       |                                          |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force                                                                                                 |                                                                                              |                                                                   | <b>DATE:</b> February 2012 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i><br>BA 5: <i>Development &amp; Demonstration (SDD)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604233F: <i>Specialized Undergraduate Pilot Training</i> | <b>PROJECT</b><br>655340: <i>Advanced Trainer Replacement T-X</i> |                            |

Schedule Details

| Events                                                 | Start   |      | End     |      |
|--------------------------------------------------------|---------|------|---------|------|
|                                                        | Quarter | Year | Quarter | Year |
| Material Solution Analysis                             | 1       | 2011 | 4       | 2014 |
| Analysis of Alternatives Report                        | 2       | 2012 | 2       | 2012 |
| In Process Review Defense Acquisition Board (DAB)      | 3       | 2012 | 3       | 2012 |
| Capability Development Document                        | 4       | 2012 | 4       | 2012 |
| Pre-Engineering Manufacturing Development (EMD) Review | 4       | 2013 | 4       | 2013 |
| Milestone B                                            | 4       | 2014 | 4       | 2014 |
| Engineering and Manufacturing Development              | 1       | 2015 | 4       | 2017 |