

UNCLASSIFIED

| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | | | | | | | | DATE February 2002 | | | |
|--|------------|-------------------|---------------------|---|---------------------|---------------------|---------------------|------------------------------|---------------------|------------|--|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305207F Manned Reconnaissance System | | | | PROJECT 4754 | | | |
| COST (\$ in Thousands) | | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost | |
| 4754 | COBRA BALL | 15,357 | 7,050 | 0 | 15,021 | 13,561 | 17,082 | 12,771 | 0 | TBD | |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| <p>(U) <u>A. Mission Description</u></p> <p>Laser Ranging and Imaging System (LRIS) -- This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with modifications to the RC-135 or its mission systems. The results of these efforts provide the requisite engineering necessary to implement modifications or provide a preliminary assessment of the technical feasibility, operability, or general military utility of an application. FY99 funds (Congressional plus-up) continues the Laser Ranging and Imaging system for the COBRA Ball platform and includes system testing in Maui. This project has been called the Field Laser Demonstration (FLD) and the Advanced Airborne Sensor (AAS) in past budget documentation. FY05 funds air traffic control and navigational safety non-recurring engineering for the RC-135 fleet.</p> <p>Multi-Function Self-Aligned Gate Technology (MSAG) -- Congress supports the development of the multi-function self-aligned gate active aperture antenna (AAA) technology for use on Reconnaissance aircraft. This system will provide wide-band, duplex, communications links simultaneously to a ground unit, other aircraft, and a satellite surrogate. This electronically steered array is a cost-effective solution to numerous DoD requirements.</p> <p>On-Board Pre-Processing (OBPP) -- The prototype pre-processing effort will develop the capability to screen the data as close to the collection source as possible and advise analysts which data requires immediate expert human intervention. The effort involves the development of an electronic support system and software development.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$5,966 LRIS (Continuation of Congressionally directed and funded program)</p> <p>(U) \$9,391 ECARs (Start of FY01 Congressional add)</p> <p>(U) \$15,357 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$5,050 Congressional Add: COBRA BALL Advanced Airborne Sensor (AAS) - \$5.05M</p> <p>(U) \$2,000 Congressional Add: COMBAT SENT Passive Airborne Ranging - \$2M</p> <p>(U) \$7,050 Total</p> | | | | | | | | | | | |
| Project 4754 | | | | Page 1 of 4 Pages | | | | Exhibit R-2 (PE 0305207F) | | | |

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| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305207F Manned Reconnaissance System | | | PROJECT 4754 | | |
| (U) <u>A. Mission Description Continued</u> | | | | | | | | | |
| (U) <u>FY 2003 (\$ in Thousands)</u> | | | | | | | | | |
| (U) \$0 No Activity | | | | | | | | | |
| (U) \$0 Total | | | | | | | | | |
| (U) <u>B. Budget Activity Justification</u> | | | | | | | | | |
| This program is budget activity 7, Operational Systems Development, because it involves Air Force R&D to field essential operational capabilities. | | | | | | | | | |
| (U) <u>C. Program Change Summary (\$ in Thousands)</u> | | | | | | | | | |
| | | | | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | | <u>Total Cost</u> | |
| (U) | Previous President's Budget | | | 15,357 | | | | | |
| (U) | Appropriated Value | | | 15,500 | 7,100 | | | | |
| (U) | Adjustments to Appropriated Value | | | | | | | | |
| | a. Congressional/General Reductions | | | | -50 | | | | |
| | b. Small Business Innovative Research | | | | | | | | |
| | c. Omnibus or Other Above Threshold Reprogram | | | | | | | | |
| | d. Below Threshold Reprogram | | | | | | | | |
| | e. Rescissions | | | -143 | | | | | |
| (U) | Adjustments to Budget Years Since FY 2002 PBR | | | | | | | | |
| (U) | Current Budget Submit/FY 2003 PBR | | | 15,357 | 7,050 | | | TBD | |
| (U) | <u>Significant Program Changes:</u> | | | | | | | | |
| | None | | | | | | | | |
| (U) <u>D. Other Program Funding Summary (\$ in Thousands)</u> | | | | | | | | | |
| | | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>Total Cost</u> |
| | | <u>Actual</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | |
| (U) | PE 0305207F, APAF | 206,878 | 243,785 | 191,080 | 141,386 | 147,223 | 148,360 | 145,180 | TBD |
| | | | | | | | | <u>Cost to Complete</u> | |

| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | | DATE February 2002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|------------------------------|---|----------------|----------------|---|---|----------------|----------------|---|---|----------------|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305207F Manned Reconnaissance System | PROJECT 4754 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>E. Acquisition Strategy</u> The RC-135 development and enhancement activities are managed by the Air Force through the BIG SAFARI program in the Reconnaissance System Program Office. These projects are managed by ASC/RA and provide technical oversight and management of all aircraft, ground and support system modifications, integration and flight test engineering responsibility, product assurance and acceptance testing, and logistics and training activities. Aircraft, aircraft sensor systems, and associated ground support system modifications planned for FY02-FY07 include the procurement, fielding and logistical support for three distinct RIVET JOINT baseline configurations [baseline 7, 8 ,9] and two distinct baselines [baselines 2 & 3] for COMBAT SENT. Additional information is available within the classified Congressional budget exhibits.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>F. Schedule Profile</u></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th colspan="4" style="text-align: center;"><u>FY 2001</u></th> <th colspan="4" style="text-align: center;"><u>FY 2002</u></th> <th colspan="4" style="text-align: center;"><u>FY 2003</u></th> </tr> <tr> <th></th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>(U) Prototype Delivery (LRIS)</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) Engineering Analysis Report (MSAG)</td> <td></td><td></td><td></td><td></td> <td></td><td>*</td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) Electronic Support System (OBPP)</td> <td></td><td></td><td></td><td></td> <td></td><td>*</td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) Software Prototype (OBPP)</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="13">* - Denotes completed event</td> </tr> <tr> <td colspan="13">X - Denotes planned event</td> </tr> </tbody> </table> | | | | <u>FY 2001</u> | | | | <u>FY 2002</u> | | | | <u>FY 2003</u> | | | | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | (U) Prototype Delivery (LRIS) | | | | | | | | | | | | | (U) Engineering Analysis Report (MSAG) | | | | | | * | | | | | | | (U) Electronic Support System (OBPP) | | | | | | * | | | | | | | (U) Software Prototype (OBPP) | | | | | | | | | | | | | * - Denotes completed event | | | | | | | | | | | | | X - Denotes planned event | | | | | | | | | | | | |
| | <u>FY 2001</u> | | | | <u>FY 2002</u> | | | | <u>FY 2003</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Prototype Delivery (LRIS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Engineering Analysis Report (MSAG) | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Electronic Support System (OBPP) | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Software Prototype (OBPP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * - Denotes completed event | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X - Denotes planned event | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project 4754 | Page 3 of 4 Pages | Exhibit R-2 (PE 0305207F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | | DATE February 2002 | | |
|---|---------------------------------|-------------------|-------------------|----------------|--|----------------|----------------|-----------------------|------------------|----------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | PROJECT | | |
| 07 - Operational System Development | | | | | 0305207F Manned Reconnaissance System | | | 4754 | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | |
| | | | | | | <u>FY 2001</u> | | <u>FY 2002</u> | | <u>FY 2003</u> |
| (U) | System Design and Analysis | | | | | 7,207 | | 7,050 | | 0 |
| (U) | Fabrication and Test | | | | | 3,000 | | | | |
| (U) | Integration and Support | | | | | 5,150 | | | | |
| (U) | Total | | | | | 15,357 | | 7,050 | | 0 |
| (U) B. Budget Acquisition History and Planning Information (\$ in Thousands) | | | | | | | | | | |
| (U) Performing Organizations: | | | | | | | | | | |
| <u>Contractor or</u> | <u>Contract</u> | | | | | | | | | |
| <u>Government</u> | <u>Method/Type</u> | <u>Award or</u> | <u>Performing</u> | <u>Project</u> | | | | | | |
| <u>Performing</u> | <u>or Funding</u> | <u>Obligation</u> | <u>Activity</u> | <u>Office</u> | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> |
| <u>Activity</u> | <u>Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | <u>to FY 2001</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>Complete</u> | <u>Program</u> |
| <u>Product Development Organizations</u> | | | | | | | | | | |
| ASC/RAB | Multiple | Aug 97 | N/A | N/A | 4,795 | 15,357 | 7,050 | 0 | Continuing | TBD |
| <u>Support and Management Organizations</u> | | | | | | | | | | |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| | | | | | | | | | | |
| <u>Subtotals</u> | | | | | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> |
| | | | | | <u>to FY 2001</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>Complete</u> | <u>Program</u> |
| | Subtotal Product Development | | | | 4,795 | 15,357 | 7,050 | 0 | TBD | TBD |
| | Subtotal Support and Management | | | | | | | | | |
| | Subtotal Test and Evaluation | | | | | | | | | |
| | Total Project | | | | 4,795 | 15,357 | 7,050 | 0 | TBD | TBD |