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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE
June 2001

| | | | | | | | | | | | |
|--|--------------|----------------|------------------|--|------------------|------------------|------------------|------------------|------------------|-------------------------------|------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0207253F Compass Call | | | | | | PROJECT 4804 | |
| COST (\$ in Thousands) | | FY 2000 Actual | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| 4804 | Compass Call | 13,780 | 21,634 | 3,908 | 3,904 | 3,900 | 0 | 5,049 | 6,526 | Continuing | TBD |
| Quantity of RDT&E Articles | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |

Note: FY03-FY07 budget numbers do not reflect DoD's strategic review results.

(U) A. Mission Description

COMPASS CALL is the USAF's airborne wide area coverage offensive counter information system. It denies, disrupts, degrades and deceives adversary voice and data communications, disrupting their ability to effectively command and control forces in the field. Although COMPASS CALL has been a fielded, operational capability since 1983, it continues to evolve and adapt to counter the constantly changing adversary tactical communications. Most recently, this is reflected in a shift from traditional military communication systems to an increasing reliance on commercial/civil capabilities.

The development to be accomplished by these funds center around the direct incorporation of capabilities provided by Engineering and Manufacturing Development (EMD) and other related programs/activities into the operational system to include Block 20, Block 30, Block 35 and related integration, testing, training, simulation and deploying systems. The evolution of the adversary threat requires developmental investments in a wide range of activities and ancillary subsystems. These activities include significant effort in the development and operational fielding of the Tactical Radio Acquisition and Countermeasures Subsystem (TRACS) which represents the next evolutionary capability increase in receiver/countermeasure effectivity for COMPASS CALL. Activities are also required in the related areas of human-machine interfaces, software, testing and integration, signals analysis, countermeasure development for the evolving threat, mission planning, Concept of Operations (CONOPS) development and program planning for the production of subsystems and capabilities. RDT&E articles for FY00-04 are TRACS engineering and manufacturing development units necessary for this system to evolve to counter emerging threats.

(U) FY 2000 (\$ in Thousands)

- (U) \$4,200** Continue TRACS-C development and integration
- (U) \$453** Start flight test activities for TRACS-C
- (U) \$9,127** TRACS-F Development
- (U) \$13,780** Total

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|---|--|--------------------------|----------------|-------------------|
| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT | | |
| 07 - Operational System Development | 0207253F Compass Call | 4804 | | |
| (U) <u>A. Mission Description Continued</u> | | | | |
| (U) <u>FY 2001 (\$ in Thousands)</u> | | | | |
| (U) \$4,501 | Complete TRACS-C development and integration | | | |
| (U) \$986 | Continue flight test for TRACS-C | | | |
| (U) \$300 | Conduct TRACS-F ground demonstration | | | |
| (U) \$7,923 | Spear System Improvements (Congressional add) | | | |
| (U) \$7,924 | Analysis System Upgrade (Congressional add) | | | |
| (U) \$21,634 | Total | | | |
| Note: The following net transactions are not reflected in the FY01 program total: BTR = -\$75K and SBIR = -\$179K. These transactions are not reflected in other sections of the R-Docs where an FY01 total is shown. | | | | |
| (U) <u>FY 2002 (\$ in Thousands)</u> | | | | |
| (U) \$3,023 | Develops and integrates classified capabilities using new technologies against emerging/evolving C3I threats | | | |
| (U) \$885 | Ground and Flight Test | | | |
| (U) \$3,908 | Total | | | |
| (U) <u>B. Budget Activity Justification</u> | | | | |
| This program is categorized as Budget Activity 7 because it provides for development of technologies and capabilities in support of operational system development. | | | | |
| (U) <u>C. Program Change Summary (\$ in Thousands)</u> | | | | |
| | <u>FY 2000</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>Total Cost</u> |
| (U) Previous President's Budget (FY 2001 PBR) | 12,837 | 5,834 | 3,886 | TBD |
| (U) Appropriated Value | 12,908 | 21,834 | | |
| (U) Adjustments to Appropriated Value | | | | |
| a. Congressional/General Reductions | | | | |
| b. Small Business Innovative Research | -387 | | | |
| c. Omnibus or Other Above Threshold Reprogram | | | | |
| d. Below Threshold Reprogram | 1,309 | | | |
| e. Rescissions | -50 | -200 | | |
| (U) Adjustments to Budget Years Since FY 2001 PBR | | | 22 | |
| (U) Current Budget Submit/FY 2002 PBR | 13,780 | 21,634 | 3,908 | TBD |
| Project 4804 | | | | |

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|--|--|-------------------------------|

(U) **C. Program Change Summary (\$ in Thousands) Continued**

(U) Significant Program Changes:

(U) **D. Other Program Funding Summary (\$ in Thousands)**

| | <u>FY 2000</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>Cost to</u> | <u>Total Cost</u> |
|---|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| | <u>Actual</u> | <u>Estimate</u> | <u>Complete</u> | |
| (U) PE 0207253F, Aircraft Modification (3010) | 9,007 | 16,576 | 42,227 | 31,734 | 17,802 | 8,420 | 8,596 | 8,778 | | TBD |
| (U) PE 0305164F, Aircraft Procurement (3010)* | | 5,000 | 8,000 | 12,000 | 8,500 | 8,500 | 0 | 0 | 0 | 42,000 |

(U) **E. Acquisition Strategy**

Cost Plus Award Fee (CPAF) contracting was employed for both EMD and flight test in FY00 and 01. Upgrades for waveform development to preserve system viability for the remainder of the program will employ Cost Plus Incentive Fee (CPIF) contracting.

(U) **F. Schedule Profile**

| | <u>FY 2000</u> | | | | <u>FY 2001</u> | | | | <u>FY 2002</u> | | | |
|---|----------------|---|---|---|----------------|---|---|---|----------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| (U) TRACS-C Production Long Lead Starts | * | | | | | | | | | | | |
| (U) TRACS-C Flight Test Begins | | | * | | | | | | | | | |
| (U) TRACS-C EMD Unit Deliveries Begin | | | | | * | | | | | | | |
| (U) TRACS-C Acceptance Test Plan | | | | | | | | | * | | | |

* Denotes completed event
X Denotes planned event

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | DATE June 2001 | | | | |
|--|---|--|---------------------------------|--------------------------------|--|-------------------------------|-----------------------|-----------------------|-----------------------|---------------------------|----------------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | | PE NUMBER AND TITLE 0207253F Compass Call | | | PROJECT 4804 | | | |
| (U) <u>A. Project Cost Breakdown (\$ in Thousands)</u> | | | | | | | | | | | |
| | | | | | | <u>FY 2000</u> | | <u>FY 2001</u> | | <u>FY 2002</u> | |
| (U) | Hardware/Software Development | | | | | 13,327 | | 20,648 | | 3,253 | |
| (U) | System Integration | | | | | 453 | | 986 | | 655 | |
| (U) | Total | | | | | 13,780 | | 21,634 | | 3,908 | |
| (U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u> | | | | | | | | | | | |
| (U) <u>Performing Organizations:</u> | | | | | | | | | | | |
| | <u>Contractor or Government</u> | <u>Contract Method/Type or Funding Vehicle</u> | <u>Award or Obligation Date</u> | <u>Performing Activity EAC</u> | <u>Project Office EAC</u> | <u>Total Prior to FY 2000</u> | <u>Budget FY 2000</u> | <u>Budget FY 2001</u> | <u>Budget FY 2002</u> | <u>Budget to Complete</u> | <u>Total Program</u> |
| | <u>Product Development Organizations</u> | | | | | | | | | | |
| | Sanders | CPAF/IF | FY99 | TBD | TBD | 11,892 | 13,327 | 20,648 | 3,253 | Continuing | TBD |
| | <u>Support and Management Organizations</u> | | | | | | | | | | |
| | None | | | | | | | | | | |
| | <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| | TBD | MIPR | FY00 | TBD | TBD | | 453 | 986 | 655 | Continuing | TBD |
| | | | | | | <u>Total Prior to FY 2000</u> | <u>Budget FY 2000</u> | <u>Budget FY 2001</u> | <u>Budget FY 2002</u> | <u>Budget to Complete</u> | <u>Total Program</u> |
| | <u>Subtotals</u> | | | | | | | | | | |
| | Subtotal Product Development | | | | | 11,892 | 13,327 | 20,648 | 3,253 | TBD | TBD |
| | Subtotal Support and Management | | | | | | | | | | |
| | Subtotal Test and Evaluation | | | | | | 453 | 986 | 655 | TBD | TBD |
| | Total Project | | | | | 11,892 | 13,780 | 21,634 | 3,908 | TBD | TBD |