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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | DATE February 2002 |
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| | | |
|--|---|-------------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0308699F Shared Early Warning System | PROJECT 4838 |
|--|---|-------------------------------|

| 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 |
|----------------------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------|
| 4838 Shared Early Warning System | 7,591 | 3,660 | 4,027 | 3,319 | 3,416 | 3,480 | 3,531 | Continuing | TBD |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(U) **A. Mission Description**
 The Shared Early Warning System (SEWS) resulted from Presidential foreign policy initiatives beginning in 1996. Arrangements are negotiated with individual countries on a bilateral basis to provide selected region-specific missile warning information. These efforts were initially handled on an ad hoc basis through the Office of the Secretary of Defense, the Joint Staff, and the National Reconnaissance Office (NRO). Regional U.S. CINCs and other policy makers strongly support these efforts based on political and operational benefits. In December 1998, SEWS was established as a formal DoD program with the Air Force as the lead service and is centrally managed to eliminate the previous ad hoc approach. SEWS is comprised of: program management by the System Program Office (including the use of Federally Funded Research & Development Centers (FFRDC) and Systems Engineering and Technical Assistance contractors); design, development, and acquisition of a common SEWS architecture; coordination, maintenance, and sustainment of the existing systems hardware and software; design, development, test, and installation of a Joint Data Exchange Center (JDEC) in Moscow; development and maintenance of a multi-lingual, web-based infrastructure to provide Pre-Launch Notification System information; and site preparation/installation for additional systems, as required.

(U) **FY 2001 (\$ in Thousands)**
 (U) \$3,153 Completed design and continued to develop a common SEWS architecture
 (U) \$1,887 Continued design and test of a JDEC and Pre-Launch Notification System in Moscow
 (U) \$2,551 Began common architecture installation at additional SEWS sites (to include existing SEWS sites worldwide)
 (U) \$7,591 Total

(U) **FY 2002 (\$ in Thousands)**
 (U) \$1,407 Continue to develop a common SEWS architecture
 (U) \$1,757 Continue design, test, and installation of a JDEC and Pre-Launch Notification System in Moscow
 (U) \$51 Implement Pre-Launch Notification System in additional countries as required
 (U) \$445 Install SEWS at additional sites as negotiated by SECDEF
 (U) \$3,660 Total

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|--|---|-------------------------------|----------------|-------------------|----------------|----------------|-------------------|---------------------------------|-------|-------|-------|-----|------------------------|-------|-------|--|--|---------------------------------------|--|--|--|--|-------------------------------------|-----|-----|--|--|---------------------------------------|------|--|--|--|---|--|--|--|--|------------------------------|-------|--|--|--|----------------|----|--|--|--|---|--|--|-----|--|---------------------------------------|-------|-------|-------|-----|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0308699F Shared Early Warning System | PROJECT 4838 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$1,491 Complete design, test, and installation of a JDEC and Pre-Launch Notification System in Moscow</p> <p>(U) \$1,182 Install SEWS at additional sites as negotiated by SECDEF</p> <p>(U) \$1,354 Continue to develop a common SEWS architecture</p> <p>(U) \$4,027 Total</p> <p>(U) <u>B. Budget Activity Justification</u></p> <p>This program is in Budget Activity 7 - Operational System Development, because it supports work on currently operating systems and/or upgrades still in engineering development</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>FY 2003</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">4,180</td> <td style="text-align: center;">3,697</td> <td style="text-align: center;">4,041</td> <td style="text-align: center;">TBD</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">4,219</td> <td style="text-align: center;">3,697</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: center;">-30</td> <td style="text-align: center;">-37</td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td style="text-align: center;">-290</td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td style="text-align: center;">3,701</td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">-9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2002 PBR</td> <td></td> <td></td> <td style="text-align: center;">-14</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2003 PBR</td> <td style="text-align: center;">7,591</td> <td style="text-align: center;">3,660</td> <td style="text-align: center;">4,027</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table> <p>(U) <u>Significant Program Changes:</u></p> <p>FY01 BTR: Funded startup of the Joint Data Exchange Center (JDEC) and Pre-Launch Notification System in Moscow and system design and software development for SEWS</p> | | | | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>Total Cost</u> | (U) Previous President's Budget | 4,180 | 3,697 | 4,041 | TBD | (U) Appropriated Value | 4,219 | 3,697 | | | (U) Adjustments to Appropriated Value | | | | | a. Congressional/General Reductions | -30 | -37 | | | b. Small Business Innovative Research | -290 | | | | c. Omnibus or Other Above Threshold Reprogram | | | | | d. Below Threshold Reprogram | 3,701 | | | | e. Rescissions | -9 | | | | (U) Adjustments to Budget Years Since FY 2002 PBR | | | -14 | | (U) Current Budget Submit/FY 2003 PBR | 7,591 | 3,660 | 4,027 | TBD |
| | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>Total Cost</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Previous President's Budget | 4,180 | 3,697 | 4,041 | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Appropriated Value | 4,219 | 3,697 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Appropriated Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Congressional/General Reductions | -30 | -37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. Small Business Innovative Research | -290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. Omnibus or Other Above Threshold Reprogram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d. Below Threshold Reprogram | 3,701 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| e. Rescissions | -9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Budget Years Since FY 2002 PBR | | | -14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Current Budget Submit/FY 2003 PBR | 7,591 | 3,660 | 4,027 | TBD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project 4838 | Page 2 of 5 Pages | Exhibit R-2 (PE 0308699F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|----------------|-----------------|-----------------|---|-----------------|-----------------|-----------------|-----------------------|-------------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0308699F Shared Early Warning System | | | | PROJECT 4838 | |
| (U) D. Other Program Funding Summary (\$ in Thousands) | | | | | | | | | |
| | <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>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Estimate</u> | <u>Complete</u> | |
| (U) Other APPN | | | | | | | | | |
| (U) OPAF (PE 0308699F, Comm Elect Mods, P-1 Line Item #75, BA 3) | | 199 | 1,689 | 199 | 298 | 1,584 | 297 | Continuing | TBD |
| (U) E. Acquisition Strategy | | | | | | | | | |
| The Integrated Space Command and Control (ISC2) contract is employed as an evolutionary spiral development acquisition strategy that enables rapid development and fielding of an initial capability in response to validated requirements. SEWS uses commercial off-the-shelf (COTS) items and employs a data system already in use by DoD. Implementation within the ISC2 contract offers benefits to SEWS by taking advantage of the commonality between SEWS and the missile warning mission already included as part of ISC2. This synergy encourages the use of a common system support infrastructure and reuse of software components. The ISC2 contract is a performance-oriented contract vehicle that drives Total System Performance Responsibility to industry. | | | | | | | | | |
| (U) F. Schedule Profile | | | | | | | | | |
| | | | | <u>FY 2001</u> | | <u>FY 2002</u> | | <u>FY 2003</u> | |
| | | | | 1 | 2 | 3 | 4 | 1 | 2 |
| | | | | | | | | 3 | 4 |
| (U) Complete common system architecture design | | | | | | * | | | |
| (U) Install JDEC and Pre-Launch Notification System (1) | | | | | | | X | | |
| (U) Incremental development of common system architecture | | | * | | * | | X | X | X |
| (U) Standardization of additional sites with developed architecture | | | | | * | | | X | X |
| * indicates task completed/X indicates scheduled task | | | | | | | | | |
| (1) JDEC and Pre-Launch Notification System installation delayed from 4th quarter FY01 to 3rd quarter FY02 pending US-Russian agreement on taxes, liabilities, and customs issues | | | | | | | | | |

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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 | | | | | 0308699F Shared Early Warning System | | | 4838 | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | |
| | | | | | | <u>FY 2001</u> | | <u>FY 2002</u> | | <u>FY 2003</u> |
| (U) | Various Contracts | | | | | 3,802 | | 1,285 | | 1,783 |
| (U) | JDEC | | | | | 1,887 | | 1,757 | | 1,491 |
| (U) | System Engineering | | | | | 1,687 | | 430 | | 510 |
| (U) | Program Management Administration (PMA) | | | | | 215 | | 188 | | 243 |
| (U) | Total | | | | | 7,591 | | 3,660 | | 4,027 |
| (U) B. Budget Acquisition History and Planning Information (\$ in Thousands) | | | | | | | | | | |
| (U) Performing Organizations: | | | | | | | | | | |
| <u>Contractor or Government</u> | <u>Contract Method/Type</u> | <u>Award or Obligation</u> | <u>Performing Activity</u> | <u>Project Office</u> | <u>Total Prior to FY 2001</u> | <u>Budget FY 2001</u> | <u>Budget FY 2002</u> | <u>Budget FY 2003</u> | <u>Budget to Complete</u> | <u>Total Program</u> |
| <u>Performing Activity</u> | <u>or Funding Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | | | | | | |
| <u>Product Development Organizations</u> | | | | | | | | | | |
| Lockheed Martin | CP/AF | Sep 00 | TBD | TBD | 2,618 | 1,553 | 1,458 | 1,705 | Continuing | TBD |
| SPAWAR | MIPR | Nov 99 | 552 | 552 | 447 | 75 | 0 | 0 | 0 | 522 |
| NRO | MIPR | Dec 99 | TBD | TBD | 3,270 | 714 | 180 | 230 | Continuing | TBD |
| Various Ctrs/Gov Agencies | MIPR/AF | Nov 99 | TBD | TBD | 2,108 | 3,202 | 529 | 665 | Continuing | TBD |
| <u>Support and Management Organizations</u> | | | | | | | | | | |
| FFRDC | CPFF | Jan 00 | TBD | TBD | 1,065 | 245 | 195 | 0 | Continuing | TBD |
| A&AS | C/R | Apr 00 | TBD | TBD | 778 | 1,449 | 985 | 1,006 | Continuing | TBD |
| PMA | N/A | Jan 00 | TBD | TBD | 667 | 215 | 188 | 243 | Continuing | TBD |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| AFSPC 17th Test Squadron | AF | Sep 00 | TBD | TBD | 160 | 138 | 125 | 178 | Continuing | TBD |

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|--|--------------------|-------------------|-----------------|--------------------------------------|----------------|----------------|----------------|------------------|----------------|
| 07 - Operational System Development | | | | February 2002 | | | | | |
| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | | PROJECT | | |
| 07 - Operational System Development | | | | 0308699F Shared Early Warning System | | | 4838 | | |
| (U) Government Furnished Property: | | | | | | | | | |
| | <u>Contract</u> | <u>Award or</u> | | | | | | | |
| <u>Item</u> | <u>Method/Type</u> | <u>or Funding</u> | <u>Delivery</u> | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> |
| <u>Description</u> | <u>Vehicle</u> | <u>Date</u> | <u>Date</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 Property</u> | | | | | | | | | |
| None | | | | | | | | | |
| <u>Support and Management Property</u> | | | | | | | | | |
| None | | | | | | | | | |
| <u>Test and Evaluation Property</u> | | | | | | | | | |
| None | | | | | | | | | |
| | | | | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> |
| <u>Subtotals</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 | | | | 8,443 | 5,544 | 2,167 | 2,600 | TBD | TBD |
| Subtotal Support and Management | | | | 2,510 | 1,909 | 1,368 | 1,249 | TBD | TBD |
| Subtotal Test and Evaluation | | | | 160 | 138 | 125 | 178 | TBD | TBD |
| Total Project | | | | 11,113 | 7,591 | 3,660 | 4,027 | TBD | TBD |