

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

DATE
February 2000

| BUDGET ACTIVITY | | PE NUMBER AND TITLE | | | | | | | |
|--|----------------|---|------------------|------------------|------------------|------------------|------------------|------------------|------------|
| 07 - Operational System Development | | 0305911F Defense Support Program | | | | | | | |
| COST (\$ in Thousands) | FY 1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | Cost to Complete | Total Cost |
| Total Program Element (PE) Cost | 13,971 | 7,361 | 11,462 | 6,418 | 6,697 | 0 | 0 | 0 | 1,923,990 |
| 673615 Shield/Alert | 10,461 | 7,361 | 7,380 | 4,336 | 4,616 | 0 | 0 | 0 | 69,426 |
| 673624 Defense Support Program | 3,510 | 0 | 4,082 | 2,082 | 2,081 | 0 | 0 | 0 | 1,854,564 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(U) **A. Mission Description**

The Defense Support Program (DSP) is a system of satellites in geostationary orbits, fixed and mobile ground processing stations, one multi-purpose facility, and a ground communications network. DSP's primary mission is to provide strategic and tactical warning and limited attack assessment of a ballistic missile attack. Shield/ALERT (Attack and Launch Early Reporting to Theater) is a ground station mission processing capability which exploits inherent satellite capability to provide theater missile warning and cueing.

DSP 19 launched in April 1999, but the satellite failed to reach geosynchronous orbit.

(U) **B. Budget Activity Justification**

DSP is an operational system and is funded in Budget Activity 7, Operational Systems Support

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

| | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Total Cost</u> |
|---|----------------|----------------|----------------|-------------------|
| (U) Previous President's Budget (FY 2000 PBR) | 11,811 | 7,459 | 7,445 | 1,937,812 |
| (U) Appropriated Value | 12,037 | 7,459 | | |
| (U) Adjustments to Appropriated Value | | | | |
| a. Congressional/General Reductions | -226 | | | |
| b. Small Business Innovative Research | -398 | | | |
| c. Omnibus or Other Above Threshold Reprogram | | | -40 | |
| d. Below Threshold Reprogram | 2,636 | | | |
| e. Rescissions | -78 | | -58 | |

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DATE
February 2000

| | |
|---|--|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305911F Defense Support Program |
|---|--|

| (U) <u>C. Program Change Summary (\$ in Thousands) Continued</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Total Cost</u> |
|---|----------------|----------------|----------------|-------------------|
| f. Other | | | | |
| (U) Adjustments to Budget Years Since FY 2000 PBR | | | 4,017 | -13,822 |
| (U) Current Budget Submit/FY 2001 PBR | 13,971 | 7,361 | 11,462 | 1,923,990 |

(U) **Significant Program Changes:**
 Funding: \$2.1M per year in FY01, FY02 and FY03 was realigned from the Missile Procurement to the RDT&E appropriation to fund DSP 23 mission unique integration with EELV.

Funding: \$12.5M FY01-FY03 funding transferred from BPAC 673624 to 673615 to support continued engineering task development for ALERT and engineering prototype, feasibility analysis, and developmental test and evaluation for Shield.

Funding: \$1.4M FY99 received to support Space-Based Space Surveillance operations Advanced Concept Technology Demonstration (ACTD) Funds erroneously placed into BPAC 673615 versus the correct BPAC of 673624--both BPACs in this PE 35911F.

DSP 19 launched in April 1999, but the satellite failed to reach geosynchronous orbit.

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | | | | | | | | DATE February 2000 | | | |
|---|--------------|-------------------|---------------------|--|---------------------|---------------------|---------------------|----------------------------|---------------------|------------|--|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305911F Defense Support Program | | | | PROJECT 673615 | | | |
| COST (\$ in Thousands) | | FY 1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | Cost to Complete | Total Cost | |
| 673615 | Shield/Alert | 10,461 | 7,361 | 7,380 | 4,336 | 4,616 | 0 | 0 | 0 | 69,426 | |
| <p>(U) <u>A. Mission Description</u> Beginning in 1993, the Talon Shield project developed changes to preexisting DSP processing techniques to provide a Theater Missile Defense capability. These changes provided for the timely and accurate detection, description, and tracking of Tactical Ballistic Missiles and other theater threats, and served as the basis for the activation, on 10 March 1995, of full-time ALERT System operations by the newly constituted 11th Space Warning Squadron. ALERT-generated messages are distributed to theater warfighters; they enhance attack operations/counterforce operations by providing accurate, timely launch point estimates and support active and passive defense by providing cueing data to shooters and warning data to theater assets in the form of impact point predictions. Shield has continued to serve as a key resource in the evolution of operational improvements to the ALERT System, demonstrating the value of candidate enhancements on a prototype basis in the live, real-time environment.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u> (U) \$5,347 Continued engineering task development to prototype and implement ALERT capabilities leading up to Increment I. (U) \$2,114 Continued SBIRS ground consolidation developmental test and evaluation. (U) \$1,600 Technical analysis and independent verification and validation contractor by FFRDC (U) \$1,400 Space-Based Space Surveillance operations ACTD (placed in BPAC 673615 by error, will be properly executed in BPAC 673624) (U) \$10,461 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$3,446 Continue engineering prototypes and feasibility analysis. (U) \$2,715 Continued SBIRS ground consolidation developmental test and evaluation. (U) \$1,200 Technical analysis and independent verification and validation of contractor by FFRDC. (U) \$7,361 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$4,906 Continue engineering prototypes and feasibility analysis. (U) \$1,257 Continued SBIRS ground consolidation developmental test and evaluation. (U) \$1,217 Technical analysis and independent verification and validation of contractor by FFRDC. (U) \$7,380 Total</p> | | | | | | | | | | | |
| Project 673615 | | | | Page 3 of 11 Pages | | | | Exhibit R-2A (PE 0305911F) | | | |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | | | | | | | | DATE February 2000 | |
|--|----------------|-----------------|-----------------|--|-----------------|-----------------|-----------------|--------------------------|-------------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305911F Defense Support Program | | | | PROJECT 673615 | |
| (U) <u>B. Project Change Summary</u> | | | | | | | | | |
| \$4M FY00 funds has been transferred from DSP BPAC 673624 to support continued engineering task development for ALERT and engineering prototype, feasibility analysis, and developmental test and evaluation for Shield. | | | | | | | | | |
| (U) <u>C. Other Program Funding Summary (\$ in Thousands)</u> | | | | | | | | | |
| | <u>FY 1999</u> | <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>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) AF RDT&E | | | | | | | | | |
| (U) Other APPN | | | | | | | | | |
| (U) Missile Procurement (PE 305911F, BA-05, P-28) | 86,964 | 108,342 | 106,356 | 113,770 | 100,528 | 30,335 | 35,577 | 6,026 | 7,181,833 |
| (U) Other Procurement (PE 305911F, BA-65, P-N/A) | 202 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 1,201,700 |
| (U) Related RDT&E: | | | | | | | | | |
| (U) PE 603441F - SBIRS Dem/Val | 144,723 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,154,120 |
| (U) PE 604442F - SBIRS Low EMD | 36,627 | 225,566 | 241,021 | 306,530 | 617,662 | 763,362 | 486,840 | 513,647 | 3,191,255 |
| (U) PE 604441F- SBIRS High EMD | 508,473 | 420,476 | 569,188 | 389,879 | 196,841 | 128,871 | 100,856 | 356,475 | 3,492,030 |
| (U) <u>D. Acquisition Strategy</u> | | | | | | | | | |
| The ALERT squadron was activated on 1 Oct 94 with an ALERT Initial Operating Capability reached on 10 Mar 95. Shield RDT&E efforts develop DSP ground capabilities to satisfy continuously evolving threats. Shield supports transition to SBIRS ground architecture consolidating DSP elements. | | | | | | | | | |
| (U) <u>E. Schedule Profile</u> | | | | | | | | | |
| | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | <u>FY 2001</u> | |
| | | | | 1 2 3 4 | 1 | 2 3 4 | 1 | 2 3 4 | |
| (U) Theater Situational Analyst (TSA) Transition | | | | * | | | | | |
| (U) ALERT Version 14 Operational | | | | | * | | | | |
| (U) Shield Hardware Upgrade | | | | | * | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | DATE February 2000 | | | | |
|---|--|--|---------------------------------|--------------------------------|---|-------------------------------|-----------------------|---------------------------|-----------------------|---------------------------|----------------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | PROJECT | | | |
| 07 - Operational System Development | | | | | 0305911F Defense Support Program | | | 673615 | | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | <u>FY 2001</u> | |
| (U) | Contractor Engineering Support | | | | | 950 | | 0 | | 0 | |
| (U) | Software Development | | | | | 2,298 | | 3,137 | | 3,130 | |
| (U) | Program Management Support | | | | | 1,303 | | 650 | | 650 | |
| (U) | Training Development | | | | | 600 | | 0 | | 0 | |
| (U) | Developmental Test and Evaluation | | | | | 2,310 | | 2,374 | | 2,383 | |
| (U) | FFRDC | | | | | 1,600 | | 1,200 | | 1,217 | |
| (U) | Space-Based Space Surveillance ACTD | | | | | 1,400 | | | | | |
| (U) | Total | | | | | 10,461 | | 7,361 | | 7,380 | |
| (U) B. Budget Acquisition History and Planning Information (\$ in Thousands) | | | | | | | | | | | |
| (U) Performing Organizations: | | | | | | | | | | | |
| | <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 1999</u> | <u>Budget FY 1999</u> | <u>Budget FY 2000</u> | <u>Budget FY 2001</u> | <u>Budget to Complete</u> | <u>Total Program</u> |
| | Space-Based Space Surveillance operations ACTD (to be placed in 673624 BPAC) | | | | | | 1,400 | | | | 1,400 |
| | <u>Product Development Organizations</u> | | | | | | | | | | |
| | Aerojet | CPAF | Aug 92 | 7,898 | 7,898 | 7,898 | | | | 0 | 7,898 |
| | SPARTA | CPAF | Aug 94 | 487 | 487 | 487 | | | | 0 | 487 |
| | Lincoln Lab | PO | Mar 95 | 288 | 288 | 288 | | | | 0 | 288 |
| | Aerojet (FO) | CPAF | Oct 95 | 36,270 | 36,270 | 19,420 | 6,611 | 6,161 | 6,163 | 0 | 38,355 |
| | Nichols Research Corporation | | | 2,378 | 2,378 | 1,528 | 850 | | | 0 | 2,378 |
| | <u>Support and Management Organizations</u> | | | | | | | | | | |
| | Program Office Support | | | N/A | N/A | 67 | | | | 0 | 67 |
| | FFRDC | | | N/A | N/A | 7,547 | 1,600 | 1,200 | 1,217 | 0 | 11,564 |
| | Dept Air Force | | | N/A | N/A | 6,989 | | | | 0 | 6,989 |
| Project 673615 | | | | | Page 5 of 11 Pages | | | Exhibit R-3 (PE 0305911F) | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | DATE February 2000 | |
|--|--------|--|---|----------------|-----------------------|----------------|
| BUDGET ACTIVITY | | | PE NUMBER AND TITLE | | PROJECT | |
| 07 - Operational System Development | | | 0305911F Defense Support Program | | 673615 | |
| (U) <u>Performing Organizations Continued:</u> | | | | | | |
| <u>Test and Evaluation Organizations</u> | | | | | | |
| | | | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> |
| | | | <u>to FY 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> |
| | | | | | <u>Budget to</u> | <u>Total</u> |
| | | | | | <u>Complete</u> | <u>Program</u> |
| <u>Subtotals</u> | | | | | | |
| Space-Based Space Surveillance operations ACTD (to be placed in 673624 BPAC) | | | 1,400 | | | 1,400 |
| Subtotal Product Development | 29,621 | | 7,461 | 6,161 | 6,163 | 0 |
| Subtotal Support and Management | 14,603 | | 1,600 | 1,200 | 1,217 | 0 |
| Subtotal Test and Evaluation | | | | | | |
| Total Project | 44,224 | | 10,461 | 7,361 | 7,380 | 0 |
| | | | | | | 69,426 |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | | | | | | | | DATE February 2000 | |
|--|---|------------------|--------------------|--|------------------|------------------|----------------------------|------------------------------|------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305911F Defense Support Program | | | | PROJECT 673624 | |
| COST (\$ in Thousands) | FY 1999 Actual | FY 2000 Estimate | FY 2001 Estimate | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | Cost to Complete | Total Cost |
| 673624 Defense Support Program | 3,510 | 0 | 4,082 | 2,082 | 2,081 | 0 | 0 | 0 | 1,854,564 |
| <p>(U) <u>A. Mission Description</u> The Defense Support Program (DSP) system provides a space-based surveillance system to detect and report missile and space launches and nuclear detonations in near real time during pre-, trans-, and post-attack periods. The DSP system consists of a constellation of satellites in geostationary orbits, fixed and mobile ground processing stations, one multi-purpose facility, and a ground communications network. DSP's primary mission is to provide strategic and tactical warning and limited attack assessment of a ballistic missile attack. DSP also detects and reports nuclear detonation events and provides information for theater warning and exploitation. This project funds changes associated with Year 2000 roll-over, ACTD, and DSP-to-SBIRS transition activities and EELV mission unique engineering integration.</p> | | | | | | | | | |
| <p>(U) <u>FY 1999 (\$ in Thousands)</u></p> | | | | | | | | | |
| (U) \$300 | Ground based calibration technology | | | | | | | | |
| (U) \$100 | Year 2000 rollover | | | | | | | | |
| (U) \$3,606 | SBIRS Transition Support | | | | | | | | |
| (U) \$672 | Program Management Support | | | | | | | | |
| (U) \$232 | Long Range Planning | | | | | | | | |
| (U) (\$1,400) | Space-Based Space Surveillance operations ACTD (placed in BPAC 673615 by error, will be properly executed in BPAC 673624) | | | | | | | | |
| (U) \$3,510 | Total | | | | | | | | |
| <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> | | | | | | | | | |
| (U) \$0 | No activity | | | | | | | | |
| (U) \$0 | Total | | | | | | | | |
| <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> | | | | | | | | | |
| (U) \$2,082 | Integration efforts for DSP 23 on Evolved Expandable Launch Vehicle (EELV) | | | | | | | | |
| (U) \$2,000 | Space-Based Space Surveillance Operations ACTD | | | | | | | | |
| (U) \$4,082 | Total | | | | | | | | |
| Project 673624 | | | Page 7 of 11 Pages | | | | Exhibit R-2A (PE 0305911F) | | |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | | | | | | | DATE February 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|-----------------|--------------------|--|-----------------|-----------------|------------------------------|--------------------------|-------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|--|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--------------|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|---|--------|---------|---------|---------|---------|--------|--------|-------|-----------|--|-----|----|---|---|---|---|---|---|-----------|--------------------|--|--|--|--|--|--|--|--|--|--------------------------------|---------|---|---|---|---|---|---|---|-----------|--------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|-----------|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305911F Defense Support Program | | | | PROJECT 673624 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>B. Project Change Summary</u> \$4M FY00 funds transferred to support continued engineering task development for ALERT and engineering prototype, feasibility analysis, and developmental test and evaluation for Shield.</p> <p>\$2.1M per year in FY01-FY03 funds integration of DSP 23 onto the EELV-Heavy launch vehicle.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th><u>FY 1999</u></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> <th><u>FY 2003</u></th> <th><u>FY 2004</u></th> <th><u>FY 2005</u></th> <th><u>Cost to</u></th> <th><u>Total Cost</u></th> </tr> <tr> <th></th> <th><u>Actual</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) AF RDT&E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Other APPN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Missile Procurement (PE 305911F, BA-05, P-28)</td> <td align="right">86,964</td> <td align="right">108,342</td> <td align="right">106,356</td> <td align="right">113,770</td> <td align="right">100,528</td> <td align="right">30,335</td> <td align="right">35,577</td> <td align="right">6,026</td> <td align="right">7,181,833</td> </tr> <tr> <td>(U) Other Procurement (PE 305911F, BA-65, P-N/A)</td> <td align="right">202</td> <td align="right">14</td> <td align="right">6</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">0</td> <td align="right">1,201,700</td> </tr> <tr> <td>(U) Related RDT&E:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) PE 603441F - SBIRS Dem/Val</td> <td align="right">144,723</td> <td align="right">0</td> <td align="right">1,154,120</td> </tr> <tr> <td>(U) PE 604442F - SBIRS Low EMD</td> <td align="right">36,627</td> <td align="right">225,566</td> <td align="right">241,021</td> <td align="right">306,530</td> <td align="right">617,662</td> <td align="right">763,362</td> <td align="right">486,840</td> <td align="right">513,647</td> <td align="right">3,191,255</td> </tr> <tr> <td>(U) PE 604441F - SBIRS High EMD</td> <td align="right">508,473</td> <td align="right">420,476</td> <td align="right">569,188</td> <td align="right">389,879</td> <td align="right">196,841</td> <td align="right">128,871</td> <td align="right">100,856</td> <td align="right">356,475</td> <td align="right">3,492,030</td> </tr> </tbody> </table> | | | | | | | | | | | <u>FY 1999</u> | <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>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) AF RDT&E | | | | | | | | | | (U) Other APPN | | | | | | | | | | (U) Missile Procurement (PE 305911F, BA-05, P-28) | 86,964 | 108,342 | 106,356 | 113,770 | 100,528 | 30,335 | 35,577 | 6,026 | 7,181,833 | (U) Other Procurement (PE 305911F, BA-65, P-N/A) | 202 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 1,201,700 | (U) Related RDT&E: | | | | | | | | | | (U) PE 603441F - SBIRS Dem/Val | 144,723 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,154,120 | (U) PE 604442F - SBIRS Low EMD | 36,627 | 225,566 | 241,021 | 306,530 | 617,662 | 763,362 | 486,840 | 513,647 | 3,191,255 | (U) PE 604441F - SBIRS High EMD | 508,473 | 420,476 | 569,188 | 389,879 | 196,841 | 128,871 | 100,856 | 356,475 | 3,492,030 |
| | <u>FY 1999</u> | <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>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) AF RDT&E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Other APPN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Missile Procurement (PE 305911F, BA-05, P-28) | 86,964 | 108,342 | 106,356 | 113,770 | 100,528 | 30,335 | 35,577 | 6,026 | 7,181,833 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Other Procurement (PE 305911F, BA-65, P-N/A) | 202 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 1,201,700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Related RDT&E: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) PE 603441F - SBIRS Dem/Val | 144,723 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,154,120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) PE 604442F - SBIRS Low EMD | 36,627 | 225,566 | 241,021 | 306,530 | 617,662 | 763,362 | 486,840 | 513,647 | 3,191,255 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) PE 604441F - SBIRS High EMD | 508,473 | 420,476 | 569,188 | 389,879 | 196,841 | 128,871 | 100,856 | 356,475 | 3,492,030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>D. Acquisition Strategy</u> DSP has finished the production of satellites 19 through 23. Current contract efforts include support for Flight 20 launch and sustainment for post production storage testing, launch preparation, and on orbit testing The Space Based Infrared Systems satellites will be the follow-on system to DSP starting in FY04. FY01-FY03 funds will be used to integrate DSP 23 on EELV.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>E. Schedule Profile</u></p> <table style="width:100%;"> <tr> <td></td> <td align="center"><u>FY 1999</u></td> <td align="center"><u>FY 2000</u></td> <td align="center"><u>FY 2001</u></td> </tr> </table> | | | | | | | | | | | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project 673624 | | | Page 8 of 11 Pages | | | | Exhibit R-2A (PE 0305911F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|---|------------------------------|
| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | DATE February 2000 |
|---|------------------------------|

| | | |
|--|---|---------------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305911F Defense Support Program | PROJECT 673624 |
|--|---|---------------------------------|

(U) **E. Schedule Profile Continued**

| | <u>FY 1999</u> | | | | <u>FY 2000</u> | | | | <u>FY 2001</u> | | | |
|---|----------------|---|---|---|----------------|---|---|---|----------------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| (U) Year 2000 DSP renovation | * | | | | | | | | | | | |
| (U) DSP Satellite 23 delivery | | * | | | | | | | | | | |
| (U) DSP 19 Launch | | * | | | | | | | | | | |
| (U) Ground based calibration technology | | | * | | | | | | | | | |
| (U) DSP 20 Launch | | | | | | X | | | | | | |
| (U) DSP 21 Launch | | | | | | | | | X | | | |
| (U) DSP 22 Launch (Sep 02) | | | | | | | | | | | | |
| (U) DSP 23 Launch (Sep 03) | | | | | | | | | | | | |

UNCLASSIFIED

| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | DATE February 2000 | | | |
|---|---|----------------------------|----------------------------|-----------------------|---|-----------------------|-----------------------|-----------------------|---------------------------|----------------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | PROJECT | | |
| 07 - Operational System Development | | | | | 0305911F Defense Support Program | | | 673624 | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | <u>FY 2001</u> |
| (U) | Year 2000 roll-over activities | | | | | 100 | | 0 | | 0 |
| (U) | Long Range Planning | | | | | 232 | | 0 | | 0 |
| (U) | Space-Based Space Surveillance Operations ACTD* | | | | | 1,400 | | 0 | | 2,000 |
| (U) | Other Government Cost | | | | | 672 | | 0 | | 0 |
| (U) | SBIRS Transition Support | | | | | 806 | | 0 | | 0 |
| (U) | Ground Based Calibration Technology | | | | | 300 | | 0 | | 0 |
| (U) | DSP 23 Integration on EELV-Heavy | | | | | 0 | | 0 | | 2,082 |
| (U) | Total | | | | | 3,510 | | 0 | | 4,082 |
| *Funding of effort shared with BMDO, this causes the irregular funding profile | | | | | | | | | | |
| (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 1999</u> | <u>Budget FY 1999</u> | <u>Budget FY 2000</u> | <u>Budget FY 2001</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> | | | | | | | | | | |
| | Previous DSP Contracts (1960's-1980's) | | | | 1,536,317 | 0 | 0 | 0 | 0 | 1,536,317 |
| | Boeing | | 6,300 | 6,300 | 0 | 0 | 0 | 2,082 | 4,200 | 6,282 |
| | Aerojet* | C/CPAF | Oct 93 | 25,719 | 25,719 | 25,719 | 0 | 0 | 0 | 25,719 |
| | Aerojet | C/CPAF | Sep 93 | 9,025 | 9,025 | 9,025 | 0 | 0 | 0 | 9,025 |
| | Aerojet | C/CPFF | | 25,743 | 25,743 | 25,743 | 0 | 0 | 0 | 25,743 |
| | Aerojet | C/CPAF | Oct 95 | 2,578 | 2,578 | 2,578 | 0 | 0 | 0 | 2,578 |
| | Loral | C/FPI/AF/CPF | | 28,137 | 37,732 | 37,732 | 0 | 0 | 0 | 37,732 |
| | DOE | P.O. | | 10,724 | 10,724 | 10,724 | 0 | 0 | 0 | 10,724 |
| | Loral | C/CPAF | | 22,975 | 22,975 | 22,975 | 0 | 0 | 0 | 22,975 |

UNCLASSIFIED

| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | | DATE February 2000 | | |
|--|---------|--------|-------|---|--------------------|----------------|----------------|-----------------------|------------------|----------------|
| BUDGET ACTIVITY | | | | PE NUMBER AND TITLE | | | | PROJECT | | |
| 07 - Operational System Development | | | | 0305911F Defense Support Program | | | | 673624 | | |
| (U) Performing Organizations Continued: | | | | | | | | | | |
| * EAC is also funded by other appropriations. | | | | | | | | | | |
| <u>Support and Management Organizations</u> | | | | | | | | | | |
| Various | MIPRs | | | 6,301 | 0 | 0 | 2,000 | 0 | 8,301 | |
| Aerojet | C/ CPFF | 1,305 | 1,305 | 1,305 | 0 | 0 | 0 | 0 | 1,305 | |
| Aerojet/ | | | | | 0 | 0 | 0 | 0 | 0 | |
| Consolidated | C/ FFP | May 96 | 2,518 | 2,518 | 2,518 | 2,206 | 0 | 0 | 4,724 | |
| FFRDC | MORD | | N/A | N/A | 42,109 | 0 | 0 | 0 | 42,109 | |
| Other Gov't Cost | | | N/A | N/A | 33,732 | 1,304 | 0 | 0 | 35,036 | |
| TRW | C/CPFF | | 9,872 | 9,872 | 9,872 | 0 | 0 | 0 | 9,872 | |
| TRW Consolidated | C/CPAF | May 96 | 292 | 292 | 292 | 0 | 0 | 0 | 292 | |
| PRC | C/FPIF | Apr 94 | 7,579 | 7,579 | 7,579 | 0 | 0 | 0 | 7,579 | |
| SPARTA | C/CPAF | Aug 94 | 150 | 150 | 150 | 0 | 0 | 0 | 150 | |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| Program Office Spprt | Various | | N/A | N/A | 68,101 | 0 | 0 | 0 | 68,101 | |
| | | | | | <u>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> |
| | | | | | <u>to FY 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| <u>Subtotals</u> | | | | | | | | | | |
| Subtotal Product Development | | | | | 1,670,813 | 0 | 0 | 2,082 | 4,200 | 1,677,095 |
| Subtotal Support and Management | | | | | 103,858 | 3,510 | 0 | 2,000 | 0 | 109,368 |
| Subtotal Test and Evaluation | | | | | 68,101 | 0 | 0 | 0 | 0 | 68,101 |
| Total Project | | | | | 1,842,772 | 3,510 | 0 | 4,082 | 4,200 | 1,854,564 |