

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

DATE
February 2000

| BUDGET ACTIVITY | | PE NUMBER AND TITLE | | | | | | | |
|---|----------------|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------|
| 07 - Operational System Development | | 0305906F NCMC - TW/AA System | | | | | | | |
| 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 | 16,113 | 13,230 | 19,309 | 15,815 | 15,703 | 18,171 | 18,216 | 0 | TBD |
| 673880 CMU | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,291,797 |
| 673881 Integrated TW/AA | 15,089 | 4,465 | 4,136 | 3,669 | 3,677 | 3,750 | 3,825 | 0 | TBD |
| 674409 CMU Legacy Interface | 919 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47,451 |
| 674806 N/UWSS NORAD/USSPACECOM Warfighting System | 0 | 8,765 | 15,173 | 12,146 | 12,026 | 14,421 | 14,391 | 0 | TBD |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(U) A. Mission Description

This program element funds the evolution of the Commander-in-Chief (CINC) North American Aerospace Defense Command (NORAD)/CINC US Space Command (USSPACECOM) Battle Management Command and Control (BMC2) systems and their supporting infrastructure into an integrated, flexible, interoperable, and more cost effective architecture. This integrated BMC2 system includes the Integrated Tactical Warning and Attack Assessment (ITW/AA) command and control systems delivered under the just completed Cheyenne Mountain Upgrade (CMU) program. The RDT&E primarily funds integration of these and other existing mission areas to provide a foundation for a fused battlespace picture for the CINC, plus required additional mission capability for the command and control of space forces so that USCINCSpace can better support theater warfighting CINCs.

This program element has four related projects: The first project, CMU, was completed in early FY99 with Full Operational Capability (FOC) declaration on 29 Oct 98, ahead of the Acquisition Program Baseline (APB) schedule. The second project, ITW/AA System Engineering, is the primary source for modernization planning, integration and architecture development of modifications, upgrades and new acquisitions into the larger BMC2 system. It also provides standardization and interoperability among ITW/AA systems, the integrated BMC2 system, and other program upgrades (e.g., Space Based Infrared Systems (SBIRS) integration, National Missile Defense, and other Force Enhancements and Space Control programs). The third project, CMU Legacy Interfaces, provided software development upgrades to post-IOC CMU subsystems and direct mission software support to meet operational needs (adapting development systems to accommodate evolving older systems) and was completed in FY99. The fourth project, the NORAD/USSPACECOM Warfighting Support System (N/UWSS), provides the means by which the CINC BMC2 'system of systems' will evolve to meet CINC NORAD/USCINCSpace's evolving mission requirements and achieve Defense Information Infrastructure Common

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|--|---|

(U) **A. Mission Description Continued**
 Operating Environment (DII COE) compliance. This project is consistent with the Air Force Long Range Plan, Joint Vision 2010, and the Defense Planning Guidance. The Joint Requirements Oversight Council (JROC) approved the N/UWSS Mission Needs Statement (MNS) on 18 May 1998.

(U) **B. Budget Activity Justification**
 This program element is in Budget Activity 7, Operational System Development, because the projects in this program element support development acquisition programs or upgrades in support of operational systems.

(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) | 7,333 | 16,408 | 19,481 | TBD |
| (U) Appropriated Value | 7,878 | 13,408 | | |
| (U) Adjustments to Appropriated Value | | | | |
| a. Congressional/General Reductions | -545 | -1 | | |
| b. Small Business Innovative Research | -227 | | | |
| c. Omnibus or Other Above Threshold Reprogram | 8,000 | -73 | | |
| d. Below Threshold Reprogram | 1,097 | | | |
| e. Rescissions | -90 | -104 | | |
| f. Other | | | | TBD |
| (U) Adjustments to Budget Years Since FY 2000 PBR | | | -172 | TBD |
| (U) Current Budget Submit/FY 2001 PBR | 16,113 | 13,230 | 19,309 | TBD |

(U) **Significant Program Changes:**
 FY99: \$8000 Y2K additional supplemental appropriation to support development of the Center for Y2K Strategic Stability (CY2KSS) identified as a new start under PE0308699F in FY00 PB documentation.
 FY99 BTR: \$1,195 for Space Battle Manager Space Integration EFX 99 initiative and -\$98 to support higher AF priorities.
 FY01: Adjustment funded other AF and DoD priorities

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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 0305906F NCMC - TW/AA System | | | | PROJECT 673880 | |
| 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 |
| 673880 CMU | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,291,797 |
| <p>(U) <u>A. Mission Description</u> The Cheyenne Mountain Upgrade (CMU) program met Joint Chiefs of Staff requirements to provide the National Command Authorities with timely, reliable, and unambiguous Integrated Tactical Warning and Attack Assessment (ITW/AA) data for force survival or retaliatory decisions in the face of air, space, or ballistic missile threats. The program provided: 1) survivable communications access for missile attack warning; 2) integrated warning of ballistic missile, atmospheric, and space threats; 3) standard user displays and warning processing systems at selected command centers; 4) an austere alternate facility capable of early/trans-attack warning and peacetime backup to the Missile Warning Center at Cheyenne Mountain. The CMU program implemented an acquisition strategy that tested and delivered four phases of user capability. Phase 1 implemented the missile warning capability in Sept 1995. Phases 2 and 3 were completed in August 1996 and July 1997, respectively. The Integrated Mission testing was completed on 5 August 1998. Full Operational Capability (FOC) was declared on 29 Oct 98.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u> (U) \$105 Completed CMU (U) \$105 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$0 Not applicable (U) \$0 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 Not applicable (U) \$0 Total</p> <p>(U) <u>B. Project Change Summary</u> No change.</p> | | | | | | | | | |
| Project 673880 | | | Page 3 of 20 Pages | | | | Exhibit R-2A (PE 0305906F) | | |

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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 0305906F NCMC - TW/AA System | | | | PROJECT 673880 | |
| (U) C. Other Program Funding Summary (\$ in Thousands) | | | | | | | | | |
| | <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) Other APPN | | | | | | | | | |
| (U) Other Procurement (Electronics, tele-communications equipment, & spares)* PE0305906F | 12,380 | 10,534 | 17,484 | 15,435 | 14,508 | 14,818 | 15,083 | Continuing | |
| (U) Operations & Maintenance (PE0305906F) * Includes CMU and N/UWSS | 84,319 | 65,400 | 81,053 | 85,132 | 89,933 | 90,842 | 73,034 | Continuing | |
| (U) D. Acquisition Strategy All major contracts within this program element were awarded after full and open competition. | | | | | | | | | |
| (U) E. Schedule Profile | | | | | | | | | |
| | | | | <u>FY 1999</u> | | | <u>FY 2000</u> | | <u>FY 2001</u> |
| | | | 1 | 2 | 3 | 4 | 1 | 2 | 3 |
| (U) CMU FOC | | | * | | | | | | |
| * indicates completed task /X indicates scheduled task | | | | | | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | DATE February 2000 | | | | | |
|---|---|-------------------|-------------------|--|--------------------|-----------------------|--------------------------|----------------|------------------|----------------|--|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | PROJECT 673880 | | | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | <u>FY 2001</u> | |
| (U) | SPO Support | | | | | | | | | | |
| (U) | Information Technology Services Program Contracts | | | | | 56 | | 0 | | 0 | |
| (U) | Program Support | | | | | 49 | | 0 | | 0 | |
| (U) | Total | | | | | 105 | | 0 | | 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>Total Prior</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget</u> | <u>Budget to</u> | <u>Total</u> | |
| <u>Performing</u> | <u>or Funding</u> | <u>Obligation</u> | <u>Activity</u> | <u>Office</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>Activity</u> | <u>Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | | | | | | | |
| <u>Product Development Organizations</u> | | | | | | | | | | | |
| Lockheed-Martin | C/CPIF/AF | Oct 91 | 271,814 | 271,814 | 271,814 | 0 | 0 | 0 | 0 | 271,814 | |
| CO Springs CO | | | | | | | | | | | |
| E-Systems | C/FPI/AF | Aug 86 | 103,240 | 103,240 | 103,240 | 0 | 0 | 0 | 0 | 103,240 | |
| St Petersburg FL | | | | | | | | | | | |
| TRW, Inc | C/FPI/AF | Jun 87 | 213,761 | 213,761 | 213,761 | 0 | 0 | 0 | 0 | 213,761 | |
| Carson CA | | | | | | | | | | | |
| GTE | C/CPIF/AF | Jan 92 | 238,415 | 238,415 | 238,415 | 0 | 0 | 0 | 0 | 238,415 | |
| Needham Hgts MA | | | | | | | | | | | |
| Lockheed-Martin | SS/CPIF/AF | Mar 93 | 120,018 | 120,018 | 120,018 | 0 | 0 | 0 | 0 | 120,018 | |
| CO Springs CO | | | | | | | | | | | |
| DISA (Govt) | PO | Oct 93 | 9,152 | 9,152 | 9,152 | 0 | 0 | 0 | 0 | 9,152 | |
| Reston VA | | | | | | | | | | | |
| KAMAN Sciences | C/CPAF | Aug 95 | 3,176 | 3,176 | 3,176 | 0 | 0 | 0 | 0 | 3,176 | |
| CO Springs CO | | | | | | | | | | | |
| Misc | Various | Various | 820 | 820 | 820 | 0 | 0 | 0 | 0 | 820 | |

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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 | | | | | 0305906F NCMC - TW/AA System | | | | | 673880 |
| (U) Performing Organizations Continued: | | | | | | | | | | |
| <u>Support and Management Organizations</u> | | | | | | | | | | |
| MITRE | SS/PR | Oct 95 | N/A | N/A | 168,615 | 0 | 0 | 0 | 0 | 168,615 |
| TEMS/ITSP Contracts | C/PR | Various | N/A | N/A | 72,966 | 56 | 0 | 0 | 0 | 73,022 |
| Program Support | Various | Various | N/A | N/A | 89,715 | 49 | 0 | 0 | 0 | 89,764 |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| None | | | | | | | | | | |
| (U) Government Furnished Property: | | | | | | | | | | |
| <u>Contract</u> | | | | | | | | | | |
| | <u>Method/Type</u> | <u>Award or</u> | | | | | | | | |
| <u>Item</u> | <u>or Funding</u> | <u>Obligation</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| Subtotal Product Development | | | | | 960,396 | 0 | 0 | 0 | 0 | 960,396 |
| Subtotal Support and Management | | | | | 331,296 | 105 | 0 | 0 | 0 | 331,401 |
| Subtotal Test and Evaluation | | | | | | | | | | |
| Total Project | | | | | 1,291,692 | 105 | 0 | 0 | 0 | 1,291,797 |

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| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | | PROJECT 673881 | | |
| 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 |
| 673881 | Integrated TW/AA | 15,089 | 4,465 | 4,136 | 3,669 | 3,677 | 3,750 | 3,825 | Continuing | TBD |
| <p>(U) <u>A. Mission Description</u> This project was established to integrate new acquisitions such as the Cheyenne Mountain Upgrade (CMU) program into the Integrated Tactical Warning and Attack Assessment (ITW/AA) network when it became apparent that such efforts could only be achieved through rigorous system-of-systems design and engineering analysis of all interfaces and relationships among the twenty-six systems of the network. The project provides interface analysis and disconnect resolution among the ITW/AA systems and future program upgrades (e.g., Space Based Infrared System (SBIRS) integration, National Missile Defense, and other Force Enhancement and Space Control programs). This project supports the high priority task of integrating modifications, upgrades and new acquisitions for the USCINCSpace fixed site Command and Control nodes (e.g., Cheyenne Mountain Operations Center & Space Operations Center), component C2 nodes (14 AF Aerospace Operations Center, 20th AF Missile Operations Center) and the mobile C2 node. As USCINCSpace moves toward common infrastructures and open system platforms, this project will integrate those systems into the ITW/AA network through pre-planned vertical release upgrades. This project is the primary source for modernization planning, integration, and architecture development of modifications, upgrades and new acquisitions into the ITW/AA network. In FY99 \$8M plus-up funding under this PE was used to support development of the Center for Y2K Strategic Stability (CY2KSS) which was identified as a new start under PE0308699F in the FY00 President's Budget documentation.</p> | | | | | | | | | | |
| <p>(U) <u>FY 1999 (\$ in Thousands)</u></p> | | | | | | | | | | |
| (U) | \$3,361 | Systems Engineering Integration Team (SEIT) and Future Plans merged into Integrated Systems Engineering (ISE), tasks include: transition space surveillance common user message traffic off AUTODIN onto new communication architecture; initial integration of new Clear radar sensor into the missile warning and space surveillance C2 nodes; initial upgrade of missile warning C2 nodes from SBIRS Increment I ground station consolidation; planning and integration activities supporting NMD's BMC3 CINC node in the ITW/AA network; and software vertical release planning | | | | | | | | |
| (U) | \$3,728 | AF long range planning 'jump start' funding for Space Battle Manager (SBM) command and control prototyping, supports Expeditionary Force Experiment '99 (EFX 99) | | | | | | | | |
| (U) | \$8,000 | Shared Early Warning System (SEWS) CY2KSS supplemental appropriation | | | | | | | | |
| (U) | \$15,089 | Total | | | | | | | | |
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|---|--|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|----------------|----------------|-------------------|--|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|--|--|--|--|--|--|--|--|--|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 673881 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$2,456 Requirements, architecture, and planning for new and upgraded fixed and mobile C2 nodes and sensors including vertical release planning, communications architecture, technology roadmap, and information operations into the ITW/AA network (e.g. SBIRS and NMD).</p> <p>(U) \$1,116 Systems engineering for new and upgraded fixed and mobile C2 nodes and sensors including integrated scheduling, AUTODIN-R program, SBIRS, and NMD.</p> <p>(U) \$893 Test planning, execution, and test safety for new and upgraded fixed and mobile C2 nodes and sensors including vertical releases, AUTODIN-R program, SBIRS, and NMD.</p> <p>(U) \$4,465 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$1,861 Requirements, architecture, and planning for new and upgraded fixed and mobile C2 nodes and sensors including vertical release planning, communications architecture, technology roadmap, and information operations into the ITW/AA network (e.g. SBIRS and NMD).</p> <p>(U) \$1,241 Systems engineering for new and upgraded fixed and mobile C2 nodes and sensors including integrated scheduling, AUTODIN-R program, SBIRS, and NMD.</p> <p>(U) \$1,034 Test planning, execution, and test safety for new and upgraded fixed and mobile C2 nodes and sensors including vertical releases, AUTODIN-R program, SBIRS, and NMD.</p> <p>(U) \$4,136 Total</p> <p>(U) <u>B. Project Change Summary</u> FY99: \$8000 Y2K additional supplemental appropriation to support development of the CY2KSS identified as a new start under PE0308699F in the FY00 President's Budget documentation. There have been a number of schedule changes which are reflected and explained in Section E. Schedule Profile.</p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 10%; text-align: center;"><u>FY 1999</u></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></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>FY 2004</u></th> <th style="width: 10%; text-align: center;"><u>FY 2005</u></th> <th style="width: 10%; text-align: center;"><u>Cost to</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> <tr> <td></td> <td style="text-align: center;"><u>Actual</u></td> <td style="text-align: center;"><u>Estimate</u></td> <td style="text-align: center;"><u>Complete</u></td> <td></td> </tr> </thead> <tbody> <tr> <td>(U) All other Appn shown in the CMU, Project 3880.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(U) <u>D. Acquisition Strategy</u> All major contracts within this program element were awarded after full and open competition.</p> | | | | <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) All other Appn shown in the CMU, Project 3880. | | | | | | | | | |
| | <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) All other Appn shown in the CMU, Project 3880. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| BUDGET ACTIVITY 07 - Operational System Development | | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | | | | PROJECT 673881 | | | | | | |
| (U) E. Schedule Profile | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | <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) AUTODIN Transition completed | | | | | | | | | X | | | | | | | | |
| (U) SBIRS - ITW/AA Increment 1 completed | * | | | | | | | | | | | | | | | | |
| (U) SBIRS - ITW/AA Increment 2 completion | | | | | | | X | | | | | | | | | | |
| (U) Complete Clear Radar Upgrade Integration | | | | | | | | | X | | | | | | | | |
| (U) Start ITW/AA MPDS-R Legacy Comm Transition | | | | | | | | X | | | | | | | | | |
| (U) Start ITW/AA Space Defense Operations Center Re-Engineering | | | | * | | | | | | | | | | | | | |
| (U) Start NMD - BMC3 ITW/AA Integration | | | | * | | | | | | | | | | | | | |
| (U) ITW/AA Air Initiatives completed | | | | | | | | X | | | | | | | | | |
| (U) Pre-Planned ITW/AA Software Vertical Release Upgrades | | * | | * | | X | | X | | X | | X | | | | | |
| (U) HAVE STARE (FPS-129) Radar Integration completed | | | | | | | | | | | | X | | | | | |
| * indicates task completed/X indicates scheduled task | | | | | | | | | | | | | | | | | |
| - AUTODIN transition originally scheduled for completion Jan 00 delayed until May 00 (stage 1) for top priority space data users and (stage 2) for secondary customers coming on line throughout the remainder of the year. | | | | | | | | | | | | | | | | | |
| - ITW/AA Processing Display System - Migration (PDS-M) dropped from list of projects when estimate exceeded available budget. Tasks being rolled into work to be awarded to the eventual ISC2 contractor in Aug 00. | | | | | | | | | | | | | | | | | |
| - The HAVE STARE (FPS-129) Radar will not be a fully integrated element of the Missile Warning Space Surveillance System. The radar will only be integrated with the Space Control Center and the Alternate Space Control Center. HAVE STARE Radar Integration delayed one year due to radome blowing off (weather conditions this time of year in Norway preclude replacing the radome which still has to be manufactured). | | | | | | | | | | | | | | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | DATE February 2000 | | | |
|--|--------------------------------------|----------------------------|----------------------------|-----------------------|---|-----------------------|-----------------------|-----------------------|---------------------------|----------------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | PROJECT 673881 | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | |
| | | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | | <u>FY 2001</u> |
| (U) | Major Contract Incremental Funding * | | | | 6,706 | | 0 | | | 1,000 |
| (U) | Award/Performance Fee | | | | 142 | | 0 | | | 0 |
| (U) | SPO Support | | | | | | | | | |
| (U) | MITRE | | | | 4,282 | | 1,644 | | | 1,680 |
| (U) | TEMS/ITSP Contracts | | | | 1,921 | | 2,524 | | | 1,164 |
| (U) | Program Support | | | | 2,038 | | 297 | | | 292 |
| (U) | Total | | | | 15,089 | | 4,465 | | | 4,136 |
| * \$1M in FY01 - As part of the Total System Performance Responsibility (TSPR) initiative (identified in the N/UWSS section D. Acquisition Strategy) some systems engineering effort formerly performed by FFRDC (MITRE) will be transitioned to the ISC2 contractor. The change in MITRE funding of \$3.052 in the Feb 99 R-3 to the current \$1.680 in this document reflects that transition in FY01. | | | | | | | | | | |
| (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>Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | | | | | | |
| <u>Product Development Organizations</u> | | | | | | | | | | |
| DISA | MIPR | Apr 96 | 1,328 | 1,328 | 1,328 | | | | 0 | 1,328 |
| Lockheed Martin Co Springs, CO | C/CPIF/AF | Jun 95 | 6,390 | 6,390 | 6,390 | | | | 0 | 6,390 |
| Lockheed Martin Sunnyvale, CA | CPIF/AF | Nov 98 | 1,546 | 2,561 | 0 | 2,561 | | | 0 | 2,561 |
| SPAWAR/Navy | MIPR | Nov 98 | 583 | 1,132 | 0 | 1,435 | | | 0 | 1,435 |
| DTRA Dulles, VA | MIPR | Apr 99 | N/A | N/A | 0 | 1,300 | | | | 1,300 |
| ISC2 Contractor (TBD) | CP/AF | Oct 00 | N/A | N/A | 0 | 0 | 0 | 1,000 | 0 | 1,000 |
| Prime Contractors (Various) | Various | Various | N/A | N/A | 0 | 1,552 | | | | 1,552 |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | | | | DATE |
|--|-------------------|-------------------|-----------------|-----|--------------------|----------------|----------------|----------------|------------------|----------------|
| BUDGET ACTIVITY | | | | | | | | | | PROJECT |
| 07 - Operational System Development | | | | | | | | | | 673881 |
| PE NUMBER AND TITLE | | | | | | | | | | |
| 0305906F NCMC - TW/AA System | | | | | | | | | | |
| <p>(U) Performing Organizations Continued:</p> <p><u>Support and Management Organizations</u></p> | | | | | | | | | | |
| MITRE | CPFF | Oct 95 | N/A | N/A | 53,025 | 4,282 | 1,644 | 1,680 | Continuing | TBD |
| TEMS/Information | C/R | Various | N/A | N/A | 32,221 | 1,921 | 2,524 | 1,164 | Continuing | TBD |
| Technology Services Program | | | | | | | | | | |
| Contracts | | | | | | | | | | |
| Program Support | N/A | Nov 95 | N/A | N/A | 7,128 | 2,038 | 297 | 292 | Continuing | TBD |
| Prime Contractors | (Various) | | | | 812 | | | | | 812 |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| None | | | | | | | | | | |
| <p>(U) Government Furnished Property:</p> | | | | | | | | | | |
| <u>Contract</u> | | | | | | | | | | |
| <u>Method/Type</u> | | | | | | | | | | |
| <u>Award or</u> | | | | | | | | | | |
| <u>Item</u> | <u>or Funding</u> | <u>Obligation</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| Subtotal Product Development | | | | | 7,718 | 6,848 | 0 | 1,000 | 0 | 15,566 |
| Subtotal Support and Management | | | | | 93,186 | 8,241 | 4,465 | 3,136 | TBD | TBD |
| Subtotal Test and Evaluation | | | | | | | | | | |
| Total Project | | | | | 100,904 | 15,089 | 4,465 | 4,136 | TBD | TBD |

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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 0305906F NCMC - TW/AA System | | | | PROJECT 674409 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 674409 CMU Legacy Interface | 919 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47,451 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description</u> The FY95 Appropriations Conference Committee transferred \$41.5M from the O&M Critical Space Contract Operations Line to the RDT&E R-1 line in this program element. Congress realigned these funds from O&M to RDT&E to identify the costs associated with Cheyenne Mountain Upgrade (CMU) software development upgrades to the CMU program. To clearly account for this funding, this project, Legacy Interfaces, was established. This project provided funding for software development upgrades to the CMU program and for direct mission software support to meet operational needs and was completed in FY99.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u> (U) \$919 Provided Cheyenne Mountain software engineering support/upgrades (U) \$919 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$0 Not applicable (U) \$0 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 Not applicable (U) \$0 Total</p> <p>(U) <u>B. Project Change Summary</u> No changes</p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:15%;"></th> <th style="width:5%;"><u>FY 1999</u></th> <th style="width:5%;"><u>FY 2000</u></th> <th style="width:5%;"><u>FY 2001</u></th> <th style="width:5%;"><u>FY 2002</u></th> <th style="width:5%;"><u>FY 2003</u></th> <th style="width:5%;"><u>FY 2004</u></th> <th style="width:5%;"><u>FY 2005</u></th> <th style="width:5%;"><u>Cost to</u></th> <th style="width:5%;"><u>Total Cost</u></th> </tr> <tr> <td></td> <td align="center"><u>Actual</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Estimate</u></td> <td align="center"><u>Complete</u></td> <td></td> </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) All other Appns show in the CMU, project 3880</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></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) All other Appns show in the CMU, project 3880 | | | | | | | | | |
| | <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) All other Appns show in the CMU, project 3880 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Project 674409</p> <p align="center">Page 12 of 20 Pages</p> <p align="right">Exhibit R-2A (PE 0305906F)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | DATE February 2000 |
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| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 674409 |
|---|--|--------------------------|

(U) **D. Acquisition Strategy**
All major contracts within this program element were awarded after full and open competition.

(U) **E. Schedule Profile**

| | <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) Cheyenne Mountain test/software support upgrades | * | | | | | | | | | | | |
| * indicates task completed/X indicates planned task | | | | | | | | | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | DATE February 2000 | | | |
|--|--------------------|-------------------|-------------------|---|--------------------|----------------|-----------------------|----------------|------------------|----------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | PROJECT 674409 | | | |
| (U) <u>A. Project Cost Breakdown (\$ in Thousands)</u> | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | | <u>FY 2000</u> | | <u>FY 2001</u> |
| (U) | SPO support | | | | | 0 | | 0 | | 0 |
| (U) | ITSP Contracts | | | | | 824 | | 0 | | 0 |
| (U) | Program Support | | | | | 95 | | 0 | | 0 |
| (U) | Total | | | | | 919 | | 0 | | 0 |
| (U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u> | | | | | | | | | | |
| (U) <u>Performing Organizations:</u> | | | | | | | | | | |
| <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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| <u>Product Development Organizations</u> | | | | | | | | | | |
| Lockheed-Martin | CP/AF | Oct 94 | 9,352 | 9,352 | 9,352 | | | | 0 | 9,352 |
| CO Springs CO | | | | | | | | | | |
| E-Systems | FPIF/AF | Oct 94 | 1,880 | 1,880 | 1,880 | | | | 0 | 1,880 |
| St Petersburg FL | | | | | | | | | | |
| Kaman Sciences | CP/AF | Oct 94 | 18,214 | 18,214 | 18,214 | | | | 0 | 18,214 |
| CO Springs CO | | | | | | | | | | |
| Kaman Sciences | CP/AF | Oct 94 | 12,471 | 12,471 | 12,471 | | | | 0 | 12,471 |
| CO Springs CO | | | | | | | | | | |
| Navy/NISE | MIPR | Sep 95 | 3,244 | 3,244 | 3,244 | | | | 0 | 3,244 |
| <u>Support and Management Organizations</u> | | | | | | | | | | |
| MITRE | CPFF | N/A | N/A | N/A | 1,102 | | | | 0 | 1,102 |
| TEMS/ITSP Contracts | CPFF | N/A | N/A | N/A | 261 | 824 | | | 0 | 1,085 |
| Program Support | N/A | N/A | N/A | N/A | 8 | 95 | | | 0 | 103 |
| <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| None | | | | | | | | | | |

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | DATE February 2000 |
|---|------------------------------|

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|---|--|--------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 674409 |
|---|--|--------------------------|

(U) **Government Furnished Property:**

| <u>Item</u> <u>Description</u> | <u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u> | <u>Award or</u> <u>Obligation</u> <u>Date</u> | <u>Delivery</u> <u>Date</u> | <u>Total Prior</u> <u>to FY 1999</u> | <u>Budget</u> <u>FY 1999</u> | <u>Budget</u> <u>FY 2000</u> | <u>Budget</u> <u>FY 2001</u> | <u>Budget to</u> <u>Complete</u> | <u>Total</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| Subtotal Product Development | | | | 45,161 | | | | 0 | 45,161 |
| Subtotal Support and Management | | | | 1,371 | 919 | | | 0 | 2,290 |
| Subtotal Test and Evaluation | | | | | | | | | |
| Total Project | | | | 46,532 | 919 | | | 0 | 47,451 |

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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 0305906F NCMC - TW/AA System | | | | PROJECT 674806 | | |
| 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 |
| 674806 | N/UWSS NORAD/USSPACECOM Warfighting System | 0 | 8,765 | 15,173 | 12,146 | 12,026 | 14,421 | 14,391 | Continuing | TBD |
| <p>(U) <u>A. Mission Description</u> The NORAD/USSPACECOM Warfighting Support System (N/UWSS) provides the foundation for the future architecture for a NORAD/USSPACECOM Battle Management/C4I 'system of systems' that complies with the Defense Information Infrastructure Common Operating Environment (DII COE), Joint Technical Architecture (JTA) standards and provides for DoD/Joint C2 interoperability. New Space C2 capability will be integrated with this architecture and the evolving legacy mission capability to provide an integrated battlespace picture. N/UWSS scope addresses all Commander-in-Chief (CINC) North American Aerospace Defense Command (NORAD)/CINC US Space Command (USSPACECOM) functions including the Integrated Tactical Warning/Attack Assessment (ITW/AA) and Space Battle Management mission applications with automated decision aids. N/UWSS objectives are to provide NORAD/USSPACECOM a C2 system that is flexible in responding to evolving mission needs (e.g. Space Based Infrared System (SBIRS), National Missile Defense (NMD), Space Control, and Information Operations); is interoperable within the NORAD/USSPACECOM warfighting functions and supporting/supported CINCs; and achieves reductions in total cost of ownership.</p> <p>The initial scope of N/UWSS will put into place an architecture to support evolution of fixed and endurable C2 nodes to DII COE compliance and develop and integrate new Space C2 capability.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u> (U) \$0 Not applicable (U) \$0 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$888 Enterprise infrastructure database development (U) \$743 Fused battlespace situation monitor and assessment (U) \$2,228 Command and Control (C2) of space forces/threat warning development (U) \$4,458 C2 of space forces/space battle manager to provide theater situational awareness (U) \$448 C2 of space forces/space operations planning and development of a Space Tasking Order (STO) (U) \$8,765 Total</p> | | | | | | | | | | |
| Project 674806 | | | Page 16 of 20 Pages | | | | Exhibit R-2A (PE 0305906F) | | | |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | DATE February 2000 |
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| | | |
|--|---|---------------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 674806 |
|--|---|---------------------------------|

(U) **A. Mission Description Continued**

(U) **FY 2001 (\$ in Thousands)**

| | |
|--------------|---|
| (U) \$3,319 | Enterprise infrastructure database development |
| (U) \$3,766 | Fused battlespace picture situation monitor and assessment |
| (U) \$2,442 | C2 of space forces/threat warning development |
| (U) \$3,936 | C2 of space forces/space battle manager to provide theater situational awareness |
| (U) \$1,710 | C2 of space forces/space operations planning and development of a Space Tasking Order (STO) |
| (U) \$15,173 | Total |

(U) **B. Project Change Summary**

This project was a new start in FY00. There have been a number of schedule changes which are reflected and explained in Section E. Schedule Profile.

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

| | <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) Other APPN | | | | | | | | | |
| | Other procurement funds shown in CMU: project 673880. | | | | | | | | |

(U) **D. Acquisition Strategy**

N/UWSS will employ an evolutionary spiral development acquisition strategy which enables rapid development and fielding of an initial capability in response to a validated requirement. Using a spiral development acquisition strategy is important in a hardware/software intensive C2 system where 18-24 month technology cycles are common.

N/UWSS will utilize a performance-oriented contracting strategy with industry, evolving toward Total System Performance Responsibility (TSPR). All major contracts related to this project will be awarded after full and open competition.

(U) **E. Schedule Profile**

| | | |
|----------------|----------------|----------------|
| <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> |
|----------------|----------------|----------------|

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit) | DATE February 2000 |
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| | | |
|---|--|--------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 674806 |
|---|--|--------------------------|

(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) Interim Integrated Space Command and Control (ISC2) Contract Award | | | | | * | | | | | | | |
| (U) ISC2 Contract Award | | | | | | X | | X | | | | |
| (U) C2 of Space Forces incremental delivery | | | | | | X | | X | | | | X |

* Indicates task completion/X indicates scheduled task.

- ISC2 initial contract award will be in Feb 00 to two contractors followed by a rolling down select with final award in Aug 00 to one contractor.
- FY00 PB (Feb 99) schedule profile showed only one scheduled task (X) for ISC2 contract award because at that time ISC2 contract was to be a single source contract.
- ISC2 contract award slipped 3 months from FY00 PB (Feb 99) schedule profile. The draft RFP was released in Nov 99. The final RFP was held until critical processes (requirements, funding, test, training) could be worked and agreed to between AFSPC and PEO for C2 resulting in the delay of the final RFP release resulting in a concurrent slip to final award.
- Due to the delay of the ISC2 contract award, an interim contractor has been hired to begin the Space Battle Management Core System (SBMCS) work which results in the C2 of Space Forces incremental delivery beginning earlier on the schedule profile. The enterprise database and fused battlespace picture incremental delivery lines were then rolled into the C2 of space forces incremental delivery line in an effort to accurately portray deliveries of all space products.

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| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | | | | | | | | DATE February 2000 | | |
|--|---|--------------------|-------------------|-------------------|---|--------------------|----------------|-----------------------|----------------|------------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | | | PROJECT 674806 | | |
| (U) <u>A. Project Cost Breakdown (\$ in Thousands)</u> | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | | |
| (U) | Major Contract | | | | | 0 | 5,460 | 11,541 | | |
| (U) | Award/Performance Fee | | | | | 0 | 500 | 1,731 | | |
| (U) | FFRDC | | | | | 0 | 1,440 | 1,225 | | |
| (U) | A&AS | | | | | 0 | 1,115 | 520 | | |
| (U) | Program Support | | | | | 0 | 250 | 156 | | |
| (U) | Total | | | | | 0 | 8,765 | 15,173 | | |
| (U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u> | | | | | | | | | | |
| (U) <u>Performing Organizations:</u> | | | | | | | | | | |
| | <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>Activity</u> | <u>Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | <u>to FY 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> |
| | <u>Product Development Organizations</u> | | | | | | | | | |
| | ISC2 Contractor (TBD) | CP/AF | Aug 00 | N/A | N/A | 0 | 0 | 400 | 13,272 | Continuing |
| | Systems Engineering | MIPR | Jan 00 | N/A | N/A | 0 | 0 | 5,560 | | Continuing |
| | Development & Integration | | | | | | | | | |
| | Contractor | | | | | | | | | |
| | <u>Support and Management Organizations</u> | | | | | | | | | |
| | FFRDC | CP/FF | Jan 00 | N/A | N/A | 0 | 0 | 1,440 | 1,225 | Continuing |
| | A&AS | CP/FF | Jan 00 | N/A | N/A | 0 | 0 | 1,115 | 520 | Continuing |
| | Program Support | N/A | Jan 00 | N/A | N/A | 0 | 0 | 250 | 156 | Continuing |
| | <u>Test and Evaluation Organizations</u> | | | | | | | | | |
| | None | | | | | | | | | |

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|---|------------------------------|
| RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3) | DATE February 2000 |
|---|------------------------------|

| | | |
|---|--|--------------------------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0305906F NCMC - TW/AA System | PROJECT 674806 |
|---|--|--------------------------|

(U) **Government Furnished Property:**

| <u>Item</u> <u>Description</u> | <u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u> | <u>Award or</u> <u>Obligation</u> <u>Date</u> | <u>Delivery</u> <u>Date</u> | <u>Total Prior</u> <u>to FY 1999</u> | <u>Budget</u> <u>FY 1999</u> | <u>Budget</u> <u>FY 2000</u> | <u>Budget</u> <u>FY 2001</u> | <u>Budget to</u> <u>Complete</u> | <u>Total</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 1999</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Complete</u> | <u>Program</u> |
| Subtotal Product Development | | | | 0 | 0 | 5,960 | 13,272 | TBD | TBD |
| Subtotal Support and Management | | | | 0 | 0 | 2,805 | 1,901 | TBD | TBD |
| Subtotal Test and Evaluation | | | | | | | | | |
| Total Project | | | | 0 | 0 | 8,765 | 15,173 | TBD | TBD |