

UNCLASSIFIED

| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | | | | | | | | DATE February 2000 | | |
|--|----------------------------|-------------------|---------------------|---|---------------------|---------------------|---------------------------|--------------------------|---------------------|------------|
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0401219F KC-10S | | | | PROJECT 674496 | | |
| 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 |
| 674496 | KC-10 GATM | 9,447 | 23,331 | 19,526 | 0 | 0 | 0 | 0 | 0 | 52,304 |
| | Quantity of RDT&E Articles | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| <p>(U) <u>A. Mission Description</u> Global Air Traffic Management (GATM) is based on evolving Communication, Navigation and Surveillance (CNS) and Free Flight concepts. Key elements of its architecture are Flight Management System (FMS), Dual Multi-Mode Receiver (MMR), Dual Communications Management Unit (CMU), Communications Datalinks (HF, VHF, SATCOM). Communications upgrades include a data link to augment/replace voice communications. The navigation capabilities include a fully integrated GPS and advanced flight management system. The surveillance capabilities include automatic aircraft position reporting (both enroute and oceanic).</p> <p>* NOTE: The FY99 Omnibus approved a \$13.5 million RDT&E requirement, removed \$13.5 million from KC-10 GATM Procurement, and transferred \$9.5 million to RDT&E. Congressional action transferred \$23.609 million in FY00 funds to RDT&E. FY01 funds were transferred from procurement to accurately reflect the nature of the work being accomplished.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u> (U) \$3,780 System Engineering/Program Management (U) \$5,302 Kit Design/Development (U) \$365 Mission Support (U) \$9,447 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$4,287 System Engineering/Program Management (U) \$14,020 Kit Design/Development (U) \$2,833 Prototype Fabrication (U) \$2,191 Mission Support (U) \$23,331 Total</p> | | | | | | | | | | |
| Project 674496 | | | Page 1 of 5 Pages | | | | Exhibit R-2 (PE 0401219F) | | | |

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|--|---|------------------------------|----------------|---------------------------------------|--|-------------|------------------------|--|-------------|-------------------------------|--|-------------|-----------------|--|--------------|-------|--|--|----------------|----------------|----------------|-------------------|---|---|---|---|---|------------------------|---|--|--|---|---------------------------------------|--|--|--|--|-------------------------------------|--|------|--|------|---------------------------------------|--|------|--|------|---|-------|--|--|-------|------------------------------|--|--|--|--|----------------|-----|--|--|-----|----------|--|--------|--|--------|---|--|--|--------|--------|---------------------------------------|-------|--------|--------|--------|
| BUDGET ACTIVITY 07 - Operational System Development | PE NUMBER AND TITLE 0401219F KC-10S | PROJECT 674496 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">(U) \$196</td> <td style="width: 80%;">System Engineering/Program Management</td> <td style="width: 10%;"></td> </tr> <tr> <td>(U) \$9,057</td> <td>Kit Design/Development</td> <td></td> </tr> <tr> <td>(U) \$8,492</td> <td>Prototype Fabrication/Install</td> <td></td> </tr> <tr> <td>(U) \$1,781</td> <td>Mission Support</td> <td></td> </tr> <tr> <td>(U) \$19,526</td> <td>Total</td> <td></td> </tr> </table> <p>(U) <u>B. Budget Activity Justification</u> This effort is a low technical risk effort supporting a fielded weapon system and, therefore, is assigned to Budget Activity 7, Operational Systems 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: 50%;"></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>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2000 PBR)</td> <td align="center">0</td> <td align="center">0</td> <td align="center">0</td> <td align="center">0</td> </tr> <tr> <td>(U) Appropriated Value</td> <td align="center">0</td> <td></td> <td></td> <td align="center">0</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></td> <td align="right">-150</td> <td></td> <td align="right">-150</td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td></td> <td align="right">-128</td> <td></td> <td align="right">-128</td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td align="right">9,500</td> <td></td> <td></td> <td align="right">9,500</td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td align="right">-53</td> <td></td> <td></td> <td align="right">-53</td> </tr> <tr> <td> f. Other</td> <td></td> <td align="right">23,609</td> <td></td> <td align="right">23,609</td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2000 PBR</td> <td></td> <td></td> <td align="right">19,526</td> <td align="right">19,526</td> </tr> <tr> <td>(U) Current Budget Submit/FY 2001 PBR</td> <td align="right">9,447</td> <td align="right">23,331</td> <td align="right">19,526</td> <td align="right">52,304</td> </tr> </tbody> </table> <p>(U) <u>Significant Program Changes:</u> Funds were programmed under the 3010 appropriation in FY00 PB. Air Force determined that 3600 funds were appropriate for the NRE/Prototype of this modification. The FY99 Omnibus approved a \$13.5 million RDT&E requirement, removed \$13.5 million from KC-10 GATM Procurement, and transferred \$9.5 million to RDT&E. Congressional action transferred \$23.609 million in FY00 funds to RDT&E. FY01 funds were transferred from procurement to accurately reflect the nature of the work being accomplished.</p> | | | (U) \$196 | System Engineering/Program Management | | (U) \$9,057 | Kit Design/Development | | (U) \$8,492 | Prototype Fabrication/Install | | (U) \$1,781 | Mission Support | | (U) \$19,526 | Total | | | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Total Cost</u> | (U) Previous President's Budget (FY 2000 PBR) | 0 | 0 | 0 | 0 | (U) Appropriated Value | 0 | | | 0 | (U) Adjustments to Appropriated Value | | | | | a. Congressional/General Reductions | | -150 | | -150 | b. Small Business Innovative Research | | -128 | | -128 | c. Omnibus or Other Above Threshold Reprogram | 9,500 | | | 9,500 | d. Below Threshold Reprogram | | | | | e. Rescissions | -53 | | | -53 | f. Other | | 23,609 | | 23,609 | (U) Adjustments to Budget Years Since FY 2000 PBR | | | 19,526 | 19,526 | (U) Current Budget Submit/FY 2001 PBR | 9,447 | 23,331 | 19,526 | 52,304 |
| (U) \$196 | System Engineering/Program Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$9,057 | Kit Design/Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$8,492 | Prototype Fabrication/Install | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$1,781 | Mission Support | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) \$19,526 | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | <u>Total Cost</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Previous President's Budget (FY 2000 PBR) | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Appropriated Value | 0 | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Appropriated Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Congressional/General Reductions | | -150 | | -150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. Small Business Innovative Research | | -128 | | -128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. Omnibus or Other Above Threshold Reprogram | 9,500 | | | 9,500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d. Below Threshold Reprogram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| e. Rescissions | -53 | | | -53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| f. Other | | 23,609 | | 23,609 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Adjustments to Budget Years Since FY 2000 PBR | | | 19,526 | 19,526 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (U) Current Budget Submit/FY 2001 PBR | 9,447 | 23,331 | 19,526 | 52,304 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project 674496 | Page 2 of 5 Pages | Exhibit R-2 (PE 0401219F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit) | | | | | | | DATE February 2000 | | | |
| BUDGET ACTIVITY 07 - Operational System Development | | | | PE NUMBER AND TITLE 0401219F KC-10S | | | | PROJECT 674496 | | |
| (U) D. 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) AF RDT&E | | | | | | | | | | |
| (U) Other APPN | 595 | 0 | 36,367 | 31,334 | 19,667 | | | | 87,963 | |
| PE#401219F / KC-10 Squadrons, Aircraft Procurement, AF, BA-5, KC-10 Mods, GATM, BP-11 | | | | | | | | | | |
| (U) E. Acquisition Strategy | | | | | | | | | | |
| The acquisition strategy is to issue a cost plus award fee contract to the Original Equipment Manufacturer (OEM) for this effort. The contract is managed at the OC-ALC. | | | | | | | | | | |
| (U) F. Schedule Profile | | | | | | | | | | |
| | | | <u>FY 1999</u> | | | <u>FY 2000</u> | | <u>FY 2001</u> | | |
| | | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | |
| (U) Acquisition Strategy Plan (FY99/1) | | | * | | | | | | | |
| (U) Contract Award | | | | | | | X | | | |
| (U) Prototype Installation Starts | | | | | | | | | X | |
| (U) First Flight | | | | | | | | | X | |
| (U) Developmental Test Start | | | | | | | | | X | |
| (U) Production Installation Start (FY03/1) | | | | | | | | | | |
| (U) Production Installation Complete (FY04/1) | | | | | | | | | | |
| * - On-going activities | | | | | | | | | | |
| X - Scheduled activities | | | | | | | | | | |
| Project 674496 | | | Page 3 of 5 Pages | | | | Exhibit R-2 (PE 0401219F) | | | |

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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 | | | | | 0401219F KC-10S | | | 674496 | | | |
| (U) A. Project Cost Breakdown (\$ in Thousands) | | | | | | | | | | | |
| | | | | | | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> | | | |
| (U) | System Engineering/Program Management | | | | | 3,780 | 4,287 | 196 | | | |
| (U) | Kit Design/Development | | | | | 5,302 | 14,020 | 9,057 | | | |
| (U) | Prototype Fabrication | | | | | | 2,833 | | | | |
| (U) | Prototype Fabrication/Install | | | | | | | 8,492 | | | |
| (U) | Mission Support | | | | | 365 | 2,191 | 1,781 | | | |
| (U) | Total | | | | | 9,447 | 23,331 | 19,526 | | | |
| (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>Activity</u> | <u>Vehicle</u> | <u>Date</u> | <u>EAC</u> | <u>EAC</u> | | | | | | |
| | Boeing | SS/CPAF | Sep 99-Mar 01 | TBD | TBD | 0 | 9,247 | 22,031 | 18,917 | 0 | 50,195 |
| | <u>Product Development Organizations</u> | | | | | | | | | | |
| | <u>Support and Management Organizations</u> | | | | | | | | | | |
| | EMC, Frontier, other support contractors | C/FP | Sep 99-Mar 01 | | | | 200 | 300 | 300 | | 800 |
| | AF Mission Support System (AFMSS) | T&M | Mar 00 | | | | | 1,000 | | | 1,000 |
| | <u>Test and Evaluation Organizations</u> | | | | | | | | | | |
| | 418 Test Squadrn (Edwards AFB) | AFFTC T&M | Jan 01 | | | | | | 309 | | 309 |

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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 0401219F KC-10S | | | PROJECT 674496 | | |
| (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> | | | | | | | | | |
| TBD | | | | | | | | | |
| <u>Support and Management Property</u> | | | | | | | | | |
| TBD | | | | | | | | | |
| <u>Test and Evaluation Property</u> | | | | | | | | | |
| TBD | | | | | | | | | |
| | | | | <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> |
| | | | | 0 | 9,247 | 22,031 | 18,917 | 0 | 50,195 |
| Subtotal Product Development | | | | | | | | | |
| Subtotal Support and Management | | | | | 200 | 1,300 | 300 | | 1,800 |
| Subtotal Test and Evaluation | | | | | | | 309 | | 309 |
| Total Project | | | | 0 | 9,447 | 23,331 | 19,526 | 0 | 52,304 |