

| <b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2 Exhibit)</b>  |                       |  |   |                     | <b>February 2004</b> |                       |                     |                     |                     |
|---|-----------------------|--|---|---------------------|----------------------|-----------------------|---------------------|---------------------|---------------------|
| BUDGET ACTIVITY<br><b>6 - Management support</b>  |                       |  | PE NUMBER AND TITLE<br><b>0604256A - THREAT SIMULATOR DEVELOPMENT</b> |                     |                      | PROJECT<br><b>976</b> |                     |                     |                     |
| COST (In Thousands)   |                       |  | FY 2003<br>Actual   | FY 2004<br>Estimate | FY 2005<br>Estimate  | FY 2006<br>Estimate   | FY 2007<br>Estimate | FY 2008<br>Estimate | FY 2009<br>Estimate |
| 976   | ARMY THREAT SIM (ATS) |  | 17593   | 19601               | 22101                | 21151                 | 19367               | 20020               | 20998               |
| <p><b>A. Mission Description and Budget Item Justification:</b> This program supports the design, development, acquisition, integration and fielding of realistic mobile threat simulators and realistic threat simulation products utilized in Army training and developmental and operational tests. While this project originally funded simulators representing Soviet equipment, the changing world order has expanded the scope of this program to address other world threats. Army Threat Simulator and Threat Simulation products are utilized to populate test battlefields for U.S. Army Test and Evaluation Command (ATEC) conducted developmental and operational tests, and to support Program Executive Office (PEO) required user testing in System Integration Laboratories and hardware/simulation in-the-loop facilities. Army threat simulator and threat simulation products developed or fielded under this program support Army-wide, non-system specific threat product requirements as defined in the Army Threat Simulator and Simulation Program Plan (TSPP). Each capability is pursued in concert and coordination with existing Army and tri-service capabilities to eliminate duplication of products and services, while providing the proper mix of resources needed to support Army testing and training. These battlefield simulators represent systems (e.g. missile systems, command, control and communications systems, electronic warfare systems, helicopters, etc.) that are used to portray a realistic threat environment during testing of U.S. weapon systems. Simulator development is responsive to Office of the Secretary of Defense and General Accounting Office guidance that the Army conduct operational testing in a realistic threat environment. Actual threat equipment is acquired when appropriate (in lieu of development) and total package fielding is still required (i.e., instrumentation, operations and maintenance, manuals, new equipment training, etc.). Threat simulator development is accomplished under the auspices of the Project Manager for Instrumentation, Targets and Threat Simulators (PM ITTS) and the Director, Operational Test and Evaluation, Threat Simulator Investment Working Group. These affiliations minimize any development duplication within the U.S. Army or Department of Defense (DoD).</p> <p>FY 2005 funds develop intelligence and electronic warfare (IEW) scenario generation system dense test threat scenarios required to fully simulate environments supporting analysis for the Future Combat System. Continues development of XM11s required for the testing of Army Aviation systems; development of the information assurance test tool threat system; and begins development efforts for the threat IEW environment.</p> <p>This project supports the Current to Future transition path of the Transformation Campaign Plan (TCP).</p> |                       |  |   |                     |                      |                       |                     |                     |                     |
| <b><u>Accomplishments/Planned Program</u></b>   |                       |  |   |                     |                      | <b>FY 2003</b>        | <b>FY 2004</b>      | <b>FY 2005</b>      |                     |
| Develop Intelligence and Electronic Warfare scenario generation system for test scenario planning and execution.  |                       |  |   |                     |                      | 3145                  | 7629                | 7832                |                     |
| Develop product enhancements for XM11S simulator threat system.   |                       |  |   |                     |                      | 3674                  | 4069                | 4859                |                     |
| Continued instrumentation and fielding of Threat Mines Simulator.   |                       |  |   |                     |                      | 1048                  | 0                   | 0                   |                     |

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February 2004

BUDGET ACTIVITY

**6 - Management support**

PE NUMBER AND TITLE

**0604256A - THREAT SIMULATOR  
DEVELOPMENT**

PROJECT

**976**

## **Accomplishments/Planned Program B(continued)**

|  | FY 2003      | FY 2004      | FY 2005      |
|--|--------------|--------------|--------------|
| Develop Information Assurance Test Tool (IATT) Threat system.                                  | 2557         | 2722         | 1598         |
| Developed Radio Frequency Surface to Air Missile Threat Simulator.                             | 2100         | 0            | 0            |
| Validate threat simulators/simulations to ensure they are available for operational test.      | 602          | 154          | 138          |
| Conducted a target acquisition and designation study for Unmanned Aerial Vehicle simulator.    | 1038         | 0            | 0            |
| Conducted Radar Surveillance and Target Acquisition (RSTA) Study.                              | 539          | 0            | 0            |
| Conducted Injection Jammer Proof of Concept Study.   | 790          | 0            | 0            |
| Develop Automated Intelligence and Electronic Warfare Test System (AI-EWTS) multiple emitters. | 0            | 2082         | 0            |
| Developed Multi-Mode Top Attack Threat Simulator.  | 2100         | 0            | 0            |
| Conduct Threat Systems Management Office Operations efforts at Ft. Bliss, TX.                  | 0            | 0            | 5877         |
| Develop Threat IEW Environment to simulate EW capabilities.                                    | 0            | 0            | 1797         |
| Develop radio frequency (RF) Surface-to-Air Missile (SAM) radar prototype.                     | 0            | 2500         | 0            |
| Small Business Innovative Research/Small Business Technology Transfer Programs                 | 0            | 445          | 0            |
| <b>Totals</b>  | <b>17593</b> | <b>19601</b> | <b>22101</b> |

## **B. Program Change Summary**

|                                       | FY 2003 | FY 2004 | FY 2005 |
|---------------------------------------|---------|---------|---------|
| Previous President's Budget (FY 2004) | 18158   | 17751   | 18915   |
| Current Budget (FY 2005 PB)           | 17593   | 19601   | 22101   |
| Total Adjustments                     | -565    | 1850    | 3186    |
| Congressional program reductions      |         | -172    |         |
| Congressional rescissions             |         |         |         |
| Congressional increases               |         | 2500    |         |
| Reprogrammings                        | -565    | -478    |         |
| SBIR/STTR Transfer                    |         |         |         |
| Adjustments to Budget Years           |         |         | 3186    |

Change Summary Explanation: Funding - FY 2004: Congressional plus-ups in the amount of \$2500. FY 2005: Funds realigned from the Army Test and

|  |   |                       |
|--|---|-----------------------|
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| <p>Evaluation Command (PE 0605712A/V02) for more efficient operation of the management of threat systems (+ \$5877).</p> |   |                       |