|     | ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit) |                               |                     |                     |                     |                     |                     |                     | February 2006       |            |  |  |
|-----|---|-------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|--|--|
| _   | GET ACTIVITY<br>Operational system development    | PE NUMBER A <b>0203758A</b> - |                     | ·                   | PRO. <b>374</b>     | JECT                |                     |                     |                     |            |  |  |
|     | COST (In Thousands)                               | FY 2005<br>Estimate           | FY 2006<br>Estimate | FY 2007<br>Estimate | FY 2008<br>Estimate | FY 2009<br>Estimate | FY 2010<br>Estimate | FY 2011<br>Estimate | Cost to<br>Complete | Total Cost |  |  |
| 374 | HOR BATTLEFLD DIGITIZN                            | 24055                         | 13152               | 13373               | 10187               | 11456               | 10835               | 8485                | Continuing          | Continuing |  |  |

A. Mission Description and Budget Item Justification: Horizontal Battlefield Digitization is a strategy that allows warfighters, from the individual soldier and platform to echelons above corps, to share critical situational awareness (SA) and command and control information. It applies digital information technologies to acquire, exchange, and employ data throughout the battlespace, providing a clear and accurate common relevant picture for leaders at all levels. This timely sharing of information significantly improves the ability of commanders and leaders to quickly make decisions, synchronize forces and fires, and increase the operational tempo. Digitization is a means of realizing a fully integrated command and control capability to the platoon level, including interoperability links with joint and multi-national forces. The major efforts included in the program element are: 1) Integration and synchronization of the Army's interoperability efforts; coordination of interoperability efforts between joint and multi-national forces; and the synchronization of combat material and training efforts to develop and deploy Army information technologies. 2) Systems engineering; Integration of physical interfaces and logical mechanisms between and across multiple battlefield operating systems and across multiple Program Executive Offices, providing improved capability to operate in the common battlefield picture/SA and common operating environment (COE). Enhance synchronization of maneuvers, direct/indirect fires, intelligence and targeting, and reduce fratricide. 3) Software Blocking to synchronize system developments in order to support System of System (SOS) interoperability for legacy, interim and objective forces. 4) Unit Set Fielding oprationally releases, fields and ancorporates material systems as part of the whold C4ISR system of systems architecture. 5) Field integration to Active and Reserve Components both CONUS and OCONUS to support field use of digitized equipment.

| Accomplishments/Planned Program  | FY 2005 | FY 2006 | FY 2007 |
|--|---------|---------|---------|
| Conduct technical interoperability studies, perform interoperability/integration analyses, analyze networked weapon system and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) system compatibility, and assess technical and operational test plans, activities, and results.   | 3665    | 2713    | 3158    |
| Manage cross-platfrom software development and fielding and ensure oordinated ensuring interoperability among the various weapon platforms.  | 5575    | 3530    | 4115    |
| Integrate and synchronize interoperability across C4ISR programs in support of testing, training, and fielding system of systems developments to the force. Continue application across current and future force.  | 1963    | 1909    | 2100    |
| Single Integrated Ground Picture (SIGP) is an Army-led, multi-service initiative that maximizes the effectiveness of mission execution and significantly enhances the warfighting capabilities for U.S., Allied and Coalition Ground Forces by providing integrated information of the ground-based battlespace to the warfighter. The Single SIGP focus is the development of Joint processes, methods, architectures, standards, Operational Concept and Concept of Operations that provides the Warfighter with enhanced ground picture of the battlespace, enabling the Warfighters to more precisely and decisively command and control that battlespace. | 7291    | 0       | 0       |
| Apply university academic and research resources to the integration of Army modeling, simulation, and training in support of modernized forces.  | 2050    | 1000    | 0       |
| Support Joint and Coalition interoperability programs to improve operational integration in accordance with Joint Planning Guidance, including C4I Coalition Warfare, interoperability database developments, operational system architectures and coalition data strategies.  | 0       | 0       | 0       |
| Support digitization technical integration with Active and Reserve Components both CONUS and OCONUS.   | 3511    | 4000    | 4000    |

| ARMY RDT&E BUDGET IT                               |  | February 2006 |                 |       |
|--|--|---------------|-----------------|-------|
| BUDGET ACTIVITY 7 - Operational system development | PE NUMBER AND TITLE  0203758A - Digitization | <u> </u>      | PRO. <b>374</b> |       |
| Гotal  |  | 24055         | 13152           | 13373 |
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| ARMY RDT&E BUDGET IT                               | TEM JUSTIFIC              | it) February 2006  |         |  |
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| BUDGET ACTIVITY 7 - Operational system development | PE NUMBER <b>0203758A</b> | PROJECT <b>374</b> |         |  |
| B. Program Change Summary                          | FY 2005                   | FY 2006            | FY 2007 |  |
| Previous President's Budget (FY 2006)              | 29045                     | 12343              | 13061   |  |
| Current BES/President's Budget (FY 2007)           | 24055                     | 13152              | 13373   |  |
| Total Adjustments                                  | -4990                     | 809                | 312     |  |
| Congressional Program Reductions                   |                           |                    |         |  |
| Congressional Rescissions                          |                           |                    |         |  |
| Congressional Increases                            |                           | 1000               |         |  |
| Reprogrammings                                     | -4990                     |                    |         |  |
| SBIR/STTR Transfer                                 |                           |                    |         |  |
| Adjustments to Budget Years                        |                           | -191               | 312     |  |

Change Summary Explanation: Funding - FY 2005: Funds transferred to new PE 0605737A, Defense Foreign Language, as directed by Congress to support the Broadband Foreign Language Training program and Satellite Communications for Learning (SCOLA).

D. Acquisition Strategy To validate/demonstrate concepts and requirements, near term efforts are focused on developing a seamless battlefield software architecture and digitized hardware systems to include: evaluation of the horizontal battlefield digitization resources for systems, acquisition, integration, and testing of digital capability across multiple command and control, communications, sensors, and weapons platforms. The result will be an integrated, synchronize capability designed to meet the near-term requirements of the Stryker Brigade Combat Teams and the Army Future Force. Also supports the Army's role in joint and multi-national digitization programs, battle command efforts and Joint Battlefield Situational Awareness.

| ARMY RDT&   | (R3)                         |  |                   |                 |                          |                 |                          | February 2006   |                          |                     |               |                                |
|---|------------------------------|--|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
|   |                              |  |                   | ER AND TI       |                          |                 | PROJECT <b>374</b>       |                 |                          |                     |               |                                |
| I. Product Development  | Contract<br>Method &<br>Type | Performing Activity & Location   | Total<br>PYs Cost | FY 2005<br>Cost | FY 2005<br>Award<br>Date | FY 2006<br>Cost | FY 2006<br>Award<br>Date | FY 2007<br>Cost | FY 2007<br>Award<br>Date | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| System/Software Integration   | MIPR/PWD                     | Various  | 87324             | 8239            | 1Q                       | 5252            | 2-3Q                     | 6423            | 2-3Q                     | Continue            | 0             | 0                              |
| International Digitization  | MIPR/PWD                     | Various  | 11001             | 0               | 1Q                       | 0               |                          | 0               |                          | 0                   | 11001         | 0                              |
| Technical Analysis  | MIPR                         | MITRE, McLean, VA  | 6447              | 1709            | 1Q                       | 1600            |                          | 1600            | 1Q                       | Continue            | 0             | 0                              |
| Other Government Agencies   | MIPR                         | Various  | 6522              | 0               |                          | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Single Integrated Ground Picture  | MIPR                         |  | 0                 | 7281            |                          | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Subto   | tal:                         |  | 111294            | 17229           |                          | 6852            |                          | 8023            |                          | Continue            | 11001         | 0                              |
| Directorate of Integration Office   | Method & Type In House       | Location  Pentagon, Arlington, VA  | PYs Cost<br>9207  | Cost 1265       | Award<br>Date<br>1-4Q    | Cost 1300       | Award<br>Date            | Cost 1350       | Award<br>Date<br>1-4Q    | Complete 0          | Cost 0        | Value of<br>Contract           |
| Operations Digitization Planning, Internet and graphics support                 | MIPR                         | VA  General Dynamics Corp. Pentagon, Arlington,  |                   | 0               | 1-40                     | 0               |                          | 0               | 1-40                     | 0                   | 6999          | 0                              |
| Info Ops, System Eng. & Field<br>Integration, Internet and graphics<br>support. | PWD                          | VA Quantum Res International, Pentagon & NC3, Arlington, VA, Ft. Monroe, VA, & Ft. Hood, TX and others | 16383             | 3511            | 3Q                       | 0               |                          | 0               |                          | 0                   | 0             | 0                              |
| Other Integration Support   | MIPR                         | L3Com, Pentagon  | 2119              | 0               |                          | 0               |                          | 0               |                          | 0                   | 2119          | 0                              |
| System Eng. & Field Integration,<br>Internet and graphics support.              | PWD                          | TBD, Pentagon & NC3,<br>Arlington, VA  | 0                 | 0               | 2Q                       | 4000            |                          | 4000            | 2Q                       | 0                   | 0             | O                              |
|   | . 1                          |  | 34708             | 4776            |                          | 5300            |                          | 5350            |                          | 0                   | 9118          | 0                              |
| Subto   | tal:                         |  | 34700             | .,, 0           |                          |                 |                          |                 |                          |                     |               |                                |
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| 02                         |                       | R AND TIT  A - Digiti  Cost  0  2050  0 |                          | Cost 0 1000                      | Award<br>Date                         | Cost 0 0   | Award<br>Date                                  | Complete 0 0 0  | PROJEC<br>374  Cost  5062  0  2116                         | Value o<br>Contrac  |
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| &M                         | 2116<br>1000          | 0                                       |                          | 0                                |                                       |  |  |   | Ů  |   |
| n, Arlington,              | 1000                  | 0                                       |                          |                                  |                                       | 0  |  | 0   | 2116   |   |
|                            |                       | -                                       |                          | 0                                |                                       |  |  |   |  |   |
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| L                          |                       | 2050                                    |                          | 1000                             |                                       | 0  |  | 0   | 8178   |   |
| ning Activity & Location P | Total<br>PYs Cost     | FY 2005<br>Cost                         | FY 2005<br>Award<br>Date | FY 2006<br>Cost                  | FY 2006<br>Award<br>Date              | FY 2007<br>Cost                                  | FY 2007<br>Award<br>Date                       | Cost To<br>Complete   | Total<br>Cost  | Targe<br>Value o  |
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|                            |                       |   |                          |                                  |                                       |  |  |   |  |   |
|                            | 166872                | 24055                                   |                          | 13152                            |                                       | 13373  |  | 0   | 28297  |   |
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