

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)	February 2006
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BUDGET ACTIVITY 6 - Management support	PE NUMBER AND TITLE 0605803A - Technical Information Activities
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COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total Program Element (PE) Cost	37525	46760	34834	36628	37916	35609	35481
720 TECH INFO FUNC ACTV	6023	6739	7530	7862	8177	8247	8309
727 TECH INFO ACTIVITIES	7228	6534	6971	7399	7777	7938	8102
729 YOUTH SCIENCE ACTIV	3070	2058	2203	2198	2308	2352	2398
730 PERS & TRNG ANALYS ACT	2038	2075	1884	1968	2070	2094	2112
731 ARMY HIGH PERFORMANCE COMPUTING CENTERS (AHPCC)	7474	18745	6956	7260	7575	7638	7696
733 ACQUISITION TECH ACT	8797	5158	5776	6294	6220	3504	2986
737 KNOWLEDGE MANAGEMENT FUSION	0	2366	0	0	0	0	0
C16 FAST	2204	2119	2398	2494	2594	2617	2636
C18 BAST	691	966	1116	1153	1195	1219	1242

A. Mission Description and Budget Item Justification: This program supports upgrading the accuracy, timeliness, availability, and accessibility of scientific, technical, and management information at all levels of Army Research and Development (R&D). Management of this information is critical to achieve the goals established by the Army's Senior Leadership for the Future Combat Systems and the Future Force. Use of accurate and timely technical information is essential to successfully meeting the milestones required on the path to the Future Force, allowing Army Science and Technology (S&T) leadership to refine investment strategy and quickly react to emerging opportunities and issues. This program includes initiatives to improve information derivation, storage, access, display, validation, transmission, distribution, and interpretation. This program addresses the need to increase the competitiveness and availability of scientific, engineering, and technical skills in the DoD and National workforce through outreach programs aimed at high school students. By providing direct working experience for these students in Army laboratories, the programs expose these students to the working world of science and engineering. Work funded under this program includes analyses using behavioral science-based analytic tools to provide policy and decision makers with Soldier-oriented recommendations concerning manpower, personnel and training issues. Funding is provided for an Independent Review Team analysis of technology maturity as part of the Technology Area Readiness Assessment as required by DoDI 5000.2 dated May 12, 2003. This program funds studies by the Board on Army Science & Technology (BAST) and the Army Science Board. This program also supports Combatant Commanders and major Army commands by providing science advisors to address scientific and technical issues and by providing engineering teams to solve field Army technical problems. Coordination of this program with the other Services is achieved through inter-service working groups. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, Defense Basic Research Plan (DBRP) and the Defense Technology Area Plan (DTAP). Work in this Program Element is performed by the Research, Development and Engineering Command (RDECOM), the Army Research Office, the Army Research Institute for the Behavioral and Social Sciences, the Army Corps of Engineers' Engineer Research and Development Center (ERDC), and the Information Management Office.

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February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

6 - Management support

0605803A - Technical Information Activities

	FY 2005	FY 2006	FY 2007
<u>B. Program Change Summary</u>			
Previous President's Budget (FY 2006)	27534	32237	34720
Current BES/President's Budget (FY 2007)	37525	46760	34834
Total Adjustments	9991	14523	114
Congressional Program Reductions		-205	
Congressional Rescissions		-472	
Congressional Increases		15200	
Reprogrammings	9991		
SBIR/STTR Transfer			
Adjustments to Budget Years			114

Change Summary Explanation:

FY05: Increase funding supports critical technical analyses and assessments of S&T programs and independent technology reviews for Technology Readiness Assessments required by DoD 5000 for Acquisition program Milestone decisions. Increase supports Army Educational Outreach Program (Youth Science Program). Increase, also, supports Virtual InSight implementation as part of Business Reengineering effort.

Three FY06 Congressional adds totaling \$15200 were added to this PE.

FY06 Congressional adds with no R-2A (appropriated amount is shown):

(\$12800) Army High Performance Computing Research Center

(\$1000) Knowledge Integration and Management Center of Excellence

(\$1400) Knowledge System and Relational Database

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006	
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 720
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
720 TECH INFO FUNC ACTV	6023	6739	7530	7862	8177	8247	8309
<p>A. Mission Description and Budget Item Justification: This project provides for technology transfer activities to support acquisition, storage, and utilization of technical information for both military and domestic applications. Effective exploitation of S&T information is critical to achieving the goals established by Senior Army Leadership for the Future Combat Systems and the Future Force. Activities include Army support for Federal Laboratory Consortium (FLC) as required by Public Law; the Army Science Board; the Army Science Conference; and administration of the Army's Small Business Innovative Research (SBIR) and Small Business Technology Transfer Program (STTR) in accordance with the Small Business Research and Development Enhancement Act of 1992. Technology transfer activities make technical information available to both the public and private sectors to reduce duplication in Research & Development programs and to increase competitiveness in the U.S. business community. In addition, this project provides funding for patent legal expenses and fees for all Research, Development and Engineering Command (RDECOM) subordinate commands and laboratories, as required by the Omnibus Budget Reconciliation Act. S&T database management efforts previously performed in PE 0605803A, Project 727 for RDECOM have been transferred to this project starting in FY 2005. This efforts support development of decision aids, databases, and automation support for the management and execution of the Army Research, Development, Test and Evaluation (RDTE) appropriation. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, the Defense Basic Research Plan (DBRP) and the Defense Technology Area Plan (DTAP). Work is performed by the Army Research Laboratory (ARL).</p>							
<u>Accomplishments/Planned Program</u>				<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Provide Army funding support for Federal Laboratory Consortium as required by Public Law 104-113.				205	200	216	
- Provide administrative and contractual support for the Army Science Board.				1310	1139	1337	
- Provide administrative support for the Army's SBIR and STTR programs.				0	815	1165	
- Provide funding for patent fees and patent legal expenses for AMC commands and laboratories.				753	1043	1032	
- Provide funding for S&T Strategic Planning and Support.				325	177	225	
- Provide funding for the Army Science Conference.				400	414	430	
- Administer S&T database computer engineering support contract and support RDECOM databases S&T management support.				3030	2951	3125	
Total				6023	6739	7530	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006	
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 727
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
727 TECH INFO ACTIVITIES	7228	6534	6971	7399	7777	7938	8102
<p>A. Mission Description and Budget Item Justification: This project supports development of decision aids, databases, and automation support for the management and execution of the Army Research, Development, Test and Evaluation (RDTE) Appropriation. It includes the hardware, software and contractor support required to develop and implement a set of management decision aids, databases, and hardware/software tools to support technical and budgetary decisions at the Office of the Secretary of Defense (OSD) and Department of the Army (DA), including support of the Army Science and Technology Master Plan. Most of the efforts in this project are on-going activities to support Army Research, Development and Acquisition programs. Effective exploitation of S&T information is critical to achieving the goals established by Senior Army Leadership for the Future Combat Systems and the Future Force. Funding in this program is provided for conduct of an Independent Review Team analysis of technology maturity as part of the Technology Readiness Assessment as required by DoDI 5000.2 dated May 12, 2003. S&T RDECOM database support was transferred to PE 0605803A, Project 720 in FY 2005. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, the Defense Basic Research Plan (DBRP) and the Defense Technology Area Plan (DTAP). Work is performed by the Army Research Laboratory.</p>							
<u>Accomplishments/Planned Program</u>				<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Conduct and support S&T program portfolio assessments and analysis.				1600	1035	1069	
- Support Army S&T strategic planning, analysis, and prioritization.				2400	2218	2234	
- Provide funding and support for Army Science and Technology Master Plan development and publication.				1210	1284	1296	
- Provide funding and support for Army Acquisition Program Technology Readiness Assessments for Program Milestone Decisions.				1368	1504	1876	
- Provide Army support to Director, Defense Research and Engineering Executive Staff for DOD-wide Science and Technology oversight.				650	493	496	
Total				7228	6534	6971	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)							February 2006
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 729
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
729 YOUTH SCIENCE ACTIV	3070	2058	2203	2198	2308	2352	2398
<p>A. Mission Description and Budget Item Justification: This project supports science activities that encourage annually over 154,000 middle/high school and college youths to develop an interest and pursue higher education and employment in the scientific, engineering, and mathematics career fields. These activities are consolidated within the Army Educational Outreach Program (AEOP) that links and networks appropriate components to derive the best synergies to "present the Army" to a larger potential pool of technical talent to fill future Army Science & Technology workforce needs. AEOP increases interest and involvement of students and teachers across the nation in science, math and technology at all proficiency levels and backgrounds to include under-represented and economically disadvantaged groups by exposure to Army Sponsored research, education, competitions, internships and practical experiences. The joint Army/Navy Washington regional area Science and Engineering Apprenticeship Program (SEAP) is included in the overall effort. This project enhances the national laboratory science and engineering pool which in turn supports Defense industry and Army laboratory needs. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work is performed by the by the Research, Development and Engineering Command (RDECOM), the Army Research Institute for the Behavioral an Social Sciences, the Army Corps of Engineers' Engineer Research and Development Center (ERDC), Medical Research and Materiel Command (MRMC) and Space & Missile Defense Command (SMDC).</p>							
Accomplishments/Planned Program					<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
- Foster high school student interest nationally in science, mathematics, engineering and computer science by sponsoring the Junior Science & Humanities Symposium (JSHS), International Mathematics Olympiad (IMO), International Science and Engineering Fair (ISEF), and the Research and Engineering Apprenticeship Program (REAP).					1490	1405	1510
- Sponsor joint Army/Navy Washington Regional Area SEAP and increase Army Laboratory/Research, Development & Engineering Center (RDEC) sponsorship of students.					215	226	243
- Conduct the Uninitiated Introduction to Engineering (UNITE) program to increase the numbers of Native Americans, African Americans, and Spanish-speaking Americans attending and completing engineering and/or science curricula at the university level.					160	197	200
- Conduct West Point cadet research internship program to enhance cadet training through field experience within Army research labs and centers.					330	230	250
- Support Army Educational Outreach Program (AEOP) to enhance Science, Mathematics and Engineering education through student experiences in Army labs and academic partner institutions.					875	0	0
Total					3070	2058	2203

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006			
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 730		
COST (In Thousands)			FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
730	PERS & TRNG ANALYS ACT		2038	2075	1884	1968	2070	2094	2112
<p>A. Mission Description and Budget Item Justification: This project provides the Army's behavioral and social science research-based studies and analyses to address current and near term Soldier, training, and leader development issues. The project provides a unique capability to address a number of issues that affect, directly or indirectly, Soldier and unit performance and readiness, such as the effects of changes in training on individual and unit performance, the personnel costs of alternative programs and policies, and the effects of program changes on retention of quality Soldiers. Requirements for research-based studies and analyses for critical personnel and training issues of immediate importance are solicited on an annual basis from the Training and Doctrine Command (TRADOC), the Assistant Secretary of the Army for Manpower and Reserve Affairs, the Army Deputy Chief of Staff, G-1, and the Human Resources Command. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work in this project is managed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI).</p>									
<u>Accomplishments/Planned Program</u>						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
<p>Studies completed in FY05 include: evaluated structured Communities of Practice as a leader development tool; provided an initial validation of a Leadership Assessment Tool (LAT) for predicting junior NCO performance above and beyond the current promotion point worksheet system; assessed the impact and effectiveness of using sergeants in pay grade E-5 as drill sergeants; determined if Soldiers graduating from Basic Combat Training are adequately trained to succeed in Advanced Individual Training; recommended new screening tools to identify non high school diploma graduate recruits who have the highest potential to remain through their first terms of service; and evaluated the usefulness of the Non-commissioned Officer Leadership Skills Inventory (NLSI) for predicting drill sergeant duty performance and attrition. Projects for FY06 include: a preliminary evaluation of the Tier Two Attrition Screen (TTAS); assessing the current retention incentives used by the Army that are intended to mitigate the potential negative effects of deployments; completing an assessment of the Warrior Transition Course; evaluating the use of immersive simulation training for dismounted Soldiers; evaluating the new Basic Combat Training (BCT) Program of Instruction in terms of how well it prepares Soldiers to arrive at their first unit with the combat skills they may need immediately. The FY07 program will be based on issues identified by the Training and Doctrine Command (TRADOC), the Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA-M&RA), the Army Deputy Chief of Staff, G-1, and the Human Resources Command (HRC).</p>						2038	2075	1884	
Total						2038	2075	1884	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006			
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 731		
COST (In Thousands)			FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
731	ARMY HIGH PERFORMANCE COMPUTING CENTERS (AHPCC)		7474	18745	6956	7260	7575	7638	7696
<u>A. Mission Description and Budget Item Justification:</u> This project directly supports Future Force requirements by providing high fidelity modeling, simulation, and analysis of materials, systems, and operational constructs to be employed within the Future Force. The project supports collaborative efforts to advance computational science and its application to critical Army technologies. The Centers work with researchers at Army laboratories to explore new algorithms in the computational sciences to address critical technology issues in numerous and diverse computational research areas. The Centers also sustain high performance computing environments and educational outreach as an integral part of their mission. The cited work is consistent with Army Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work is performed by the Army Research Laboratory (ARL).									
<u>Accomplishments/Planned Program</u>						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Sustain the high performance computing environment and infrastructure in support of the US Army Tank & Automotive Research Development & Engineering Center (TARDEC).						2042	1995	2224	
- Sustain the high performance computing environment and infrastructure in support of the Army High Performance Computing Research Center's (AHPCRC) research and education activities.						1095	1105	1239	
- Sustain the high performance computing environment and infrastructure in support of the US Army Research Laboratory's Major Shared Research Center (MSRC).						2900	3027	3493	
- Army High Performance Computing Research Center (AHPCRC): In FY05 & FY06, Congressional funding provided for AHPCRC high performance computing research. No additional funding is required to complete this project.						1437	12618	0	
Total						7474	18745	6956	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006	
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT 733
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
733 ACQUISITION TECH ACT	8797	5158	5776	6294	6220	3504	2986
<p>A. Mission Description and Budget Item Justification: This project improves the Army's acquisition process by applying decision support and expert information systems, and by supporting analysis and evaluation of alternative acquisition strategies using techniques such as value-added analysis and analysis-of-alternates. This project provides the environment for the analysis and evaluation of new information technologies, and concepts and applications in integrated management activities, and support to meet the dynamic Army acquisition technology requirements. This program supports analysis efforts to conduct critical analyses for Army leadership in support of Army Transformation. These analyses used by leadership in making acquisition, procurement, and logistics decisions in order to provide quality equipment and procedures to the Soldiers. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan and the Defense Technology Area Plan (DTAP). Work in this Program Element is performed by the Army Acquisition Support Center</p>							
<u>Accomplishments/Planned Program</u>				<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language services to Army Acquisition Corps corporate and global databases. Analyze acquisition program financial programming and budgeting requirements. Continue development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking and analysis, cost-effectiveness and database management/financial analysis, special access required technology application concept research/analysis.				8035	4304	4838	
- Conduct analysis and evaluation of new information technologies, and concepts and applications of integrated management activities, to meet the dynamic Army acquisition technology requirements.				762	854	938	
Total				8797	5158	5776	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006		
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT C16	
COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
C16	FAST	2204	2119	2398	2494	2594	2617	2636
<p>A. Mission Description and Budget Item Justification: The Field Assistance in Science and Technology (FAST) program focuses Army Materiel Command (AMC) resources to rapidly identify and solve Army field technical problems that enable the improvement of readiness, safety, training, and reduce operations and support (O&S) costs. FAST tours of duty provide significant professional growth opportunities for the Army's scientists and engineers. Science advisers are recruited from AMC headquarters and all AMC Major Subordinate Commands (MSCs) to serve Combatant Commands and major commands worldwide. The FAST activity is also supported by assigned Quick Reaction Coordinators (QRCs) within each engineering center. All costs associated with science advisor assignments are funded by AMC or the AMC MSCs that supply the science advisers for two to three year tours. FAST manages a level of effort type project with most projects recouping many times their cost in O&S cost savings. FAST also provides emerging technology demonstration opportunities to the Research, Development and Engineering Command's (RDECOM) engineering centers and DARPA and executes biannual Technology Applications Conferences (TAC) on a rotating basis between FORSCOM, USAREUR, and USFK/Eighth Army. FAST also maintains close coordination with the Navy Science Advisor Program (Naval Fleet Forces Technology Integration Office). The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work in this project is performed by the U.S. Army Materiel Command.</p>								
Accomplishments/Planned Program					<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Respond to Combatant Commanders worldwide for technological solutions to urgent materiel problems they identify; deploy science advisors with U.S. Task Forces in support of Combatant Commanders; execute biannual Technology Applications Conference.					2204	2119	2398	
Total					2204	2119	2398	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)						February 2006	
BUDGET ACTIVITY 6 - Management support			PE NUMBER AND TITLE 0605803A - Technical Information Activities				PROJECT C18
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
C18 BAST	691	966	1116	1153	1195	1219	1242
<p><u>A. Mission Description and Budget Item Justification:</u> This project funds efforts in support of the Army by the National Research Council's (NRC) Board on Army Science and Technology (BAST). The BAST provides an independent, objective, and credible source of external advice to the Army. It serves as a convening authority for the discussion of science and technology issues of importance to the Army and oversees independent Army-related studies conducted by the National Academies. Working in close coordination with the Army, the BAST helps define problems, brings together experts to study these problems, and provides recommendations. Committees are assembled in accordance with established NRC procedures and BAST studies often continue longer than 12 months. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, Defense Basic Research Plan (DBRP) and the Defense Technology Area Plan (DTAP). Work in this project is performed extramurally by the Army Research Laboratory (ARL).</p>							
<u>Accomplishments/Planned Program</u>				<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
- Provide studies and conduct periodic meetings involving research and development in science and technology fields applicable to the U.S. Army. Completed primary study topic for FY05 on Network Science. Topics for FY06 and 07 will be selected according to Army S&T strategy and senior leader initiatives.				691	966	1116	
Total				691	966	1116	