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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2012 Army	<b>DATE:</b> February 2011
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<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>				PE 0601103A: <i>University Research Initiatives</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	96.409	91.161	80.977	-	80.977	82.107	87.764	91.907	94.707	Continuing	Continuing
D55: <i>University Research Initiative</i>	75.344	75.911	77.639	-	77.639	78.881	84.547	88.702	91.406	Continuing	Continuing
D58: <i>URI ACTIVITIES (CA)</i>	13.728	-	-	-	-	-	-	-	-	Continuing	Continuing
D66: <i>MEDICAL UNIVERSITY RESEARCH INITIATIVES (CA)</i>	4.935	-	-	-	-	-	-	-	-	Continuing	Continuing
V72: <i>MINERVA</i>	2.402	15.250	3.338	-	3.338	3.226	3.217	3.205	3.301	Continuing	Continuing

**Note**

FY12 funding decrease is the transfer out of MINERVA.

**A. Mission Description and Budget Item Justification**

The objective of this program element (PE) is to support Army basic research efforts in the Multidisciplinary University Research Initiative (MURI) program, the Defense University Research Instrumentation Program (DURIP) and the Presidential Early Career Awards for Scientists and Engineers (PECASE) program by funding basic research in a wide range of scientific and engineering disciplines pertinent to maintaining the U.S. land combat technology superiority. Army MURI program efforts involve teams of researchers investigating high-priority, transformational topics that intersect more than one traditional technical discipline (e.g., Intelligent Luminescence for Communication, Display, and Identification). For many complex problems, this multidisciplinary approach serves to accelerate research progress and expedite transition of results to application. The DURIP provides funds to acquire major research equipment to augment current, or devise new, research capabilities in support of Army transformational research. The PECASE program funds single-investigator research efforts performed by outstanding academic scientists and engineers early in their independent research careers.

The cited work is consistent with the Department of Defense Research and Engineering Strategic Basic Research Plan, the Army Science and Technology Master Plan, and the Army Modernization Strategy.

Work on this project is performed extramurally by the Army Research Laboratory (ARL), Research Triangle Park, NC.

Projects D58 and D66 fund Congressional interest items.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0601103A: University Research Initiatives			
BA 1: Basic Research					
B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	99.400	91.161	96.143	-	96.143
Current President's Budget	96.409	91.161	80.977	-	80.977
Total Adjustments	-2.991	-	-15.166	-	-15.166
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.238	-			
• SBIR/STTR Transfer	-2.753	-			
• Adjustments to Budget Years	-	-	-15.166	-	-15.166

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 1: Basic Research				R-1 ITEM NOMENCLATURE PE 0601103A: University Research Initiatives				PROJECT D55: University Research Initiative			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
D55: University Research Initiative	75.344	75.911	77.639	-	77.639	78.881	84.547	88.702	91.406	Continuing	Continuing

**Note**

Not applicable for this item.

**A. Mission Description and Budget Item Justification**

The objective of this project is to support the Multidisciplinary University Research Initiative (MURI), the Defense University Research Instrumentation Program (DURIP) and the Presidential Early Career Awards for Scientists and Engineers (PECASE) program. The MURI program funds university basic research in a wide range of scientific and engineering disciplines pertinent to maintaining US land combat technology superiority. Army MURI efforts involve teams of researchers investigating high-priority, transformational topics that intersect more than one traditional technical discipline (e.g. Intelligent Luminescence for Communication, Display, and Identification). For many complex problems, this multidisciplinary approach serves to accelerate research progress and expedite transition of results to application. The DURIP provides funds to acquire major research equipment to augment current, or devise new, research capabilities in support of Army transformational research. The PECASE program funds single-investigator research efforts performed by outstanding academic scientists and engineers early in their independent research careers.

The cited work is consistent with the Department of Defense Research and Engineering Strategic Basic Research Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan.

Work on this project is performed by the Army Research Laboratory (ARL) located in Research Triangle Park, NC.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Title:</b> Multidisciplinary University Research Initiative (MURI)	56.781	58.453	59.783
<b>Description:</b> MURI programs are typically 5 years in length at a cost of \$1.25M/yr.			
<b>FY 2010 Accomplishments:</b> The program supported MURI, with 10 new awards that are critical to the Army's future operating capabilities. MURI topics were Neuronal Behavior in Primary Blast; Identifying and Extracting the Mathematical Signatures of Prokaryotic Activity in DNA; Developing a Theoretical Foundation for Predicting DNA Stability; Tomography of Social Networks of Asymmetric Adversaries; Adaptive Perception and Agile Autonomy in Severe Environments; Structured Modeling for Low-Density Languages; Directed Self-Assembly of Reconfigurable Materials; Atomtronics: A generalized electronics; Bio-Electronic Templates for Interfacing to the Nanoscale; Ion Transport In Complex Heterogeneous Organic Materials; and Defect Reduction in Superlattice Materials.			
<b>FY 2011 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army		<b>DATE:</b> February 2011	
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<p>The program supports ongoing MURI awards made in prior years, with 8 new awards that are critical to the Army's future operating capabilities are planned.</p> <p><b>FY 2012 Plans:</b> Support for MURI awards made in prior years will continue and 8 new MURI awards critical to future operating capabilities will be initiated. Effective transition mechanisms include collaboration among principal investigators, participation by 6.2/6.3 program managers in MURI program reviews, and communication of the MURI research results to the Army Research Laboratory, the Research, Development, and Engineering Centers including Engineer Research and Development Center, U.S. Army Medical Research and Materiel Command, U.S. Army Research Institute, and industry.</p>			
<p><b>Title:</b> Presidential Early Career Awards for Scientists and Engineers (PECASE)</p> <p><b>Description:</b> Supports PECASE investigators started in prior years.</p> <p><b>FY 2010 Accomplishments:</b> Continued support for prior year awardees and selected five new awards.</p> <p><b>FY 2011 Plans:</b> Continue selecting five new awards and support prior years awardees.</p> <p><b>FY 2012 Plans:</b> Will continue support for prior year PECASE awards and select five additional PECASE awardees.</p>		2.837	4.291
<p><b>Title:</b> Defense University Research Instrumentation Program (DURIP)</p> <p><b>Description:</b> Supports basic research through competitive grants for research instrumentation.</p> <p><b>FY 2010 Accomplishments:</b> DURIP funded competitive grants for research instrumentation.</p> <p><b>FY 2011 Plans:</b> Fund competitive grants for research instrumentation to enhance universities' capabilities to conduct world class research critical to Army transformation.</p> <p><b>FY 2012 Plans:</b> Will continue funding competitive grants for research instrumentation to enhance universities' capabilities to conduct world class research critical to Army transformation.</p>		12.574	13.167
<p><b>Title:</b> The Minerva Research Initiative (MRI)</p>		3.152	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>	<b>PROJECT</b> D55: <i>University Research Initiative</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<p><b>Description:</b> The MRI is a university-based social science research program initiated by the Secretary of Defense. It focuses on areas in the social sciences of strategic importance to U.S. national security policy. It seeks to increase the Department's intellectual capital in the social sciences and improve its ability to address future challenges and build bridges between the Department and the social science community. Minerva will bring together universities, research institutions, and individual scholars and support multidisciplinary and cross-institutional projects addressing specific topic areas determined by the Department. Proposals have been solicited that address the following topics: Chinese Military and Technology Research and Archive Programs; Studies of the Strategic Impact of Religious and Cultural Changes within the Islamic World; Iraqi Perspectives Project; Studies of Terrorist Organization and Ideologies; New Approaches to Understanding Dimensions of National Security, Conflict, and Cooperation.</p> <p><b>FY 2010 Accomplishments:</b> Within the Army there were four awards initiated in FY09 which were continued in FY10. In FY11 this effort is consolidated under PE 61103, Project V72.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>		75.344	75.911
<b>C. Other Program Funding Summary (\$ in Millions)</b>			
N/A			
<b>D. Acquisition Strategy</b>			
N/A			
<b>E. Performance Metrics</b>			
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army								<b>DATE:</b> February 2011			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>				<b>PROJECT</b> D58: <i>URI ACTIVITIES (CA)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D58: <i>URI ACTIVITIES (CA)</i>	13.728	-	-	-	-	-	-	-	-	Continuing	Continuing
<b>Note</b> Not applicable for this item.											
<b>A. Mission Description and Budget Item Justification</b> Congressional Interest Item funding provided for University Research Initiatives.											
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>								<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	
<b>Title:</b> Hi-tech Eyes for the Battlefield.  <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Developed a novel, lightweight and adaptive image sensor architecture that derives its performance not from the size of the optical elements but from the power of the signal processing and the adaptability of its parts. The program investigated independent control of the instantaneous fields of view from an array of micro-imagers using signal processing and a two-dimensional array of micro-mirrors.								1.591	-	-	
<b>Title:</b> Columbia College Chicago Construct Program.  <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Began the multi-phase CONSTRUCT project to teach machines to analyze the interactions among humans as they collaborate to complete a task. This was done by merging video gaming with behavioral and computer science to quantify the ways in which individuals communicate, such as speech, body language, and facial movements, in order to facilitate more constructive interactions.								1.592	-	-	
<b>Title:</b> Open Source Intelligence for Force Protection and Intelligence.  <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b>								0.796	-	-	

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>	<b>PROJECT</b> D58: <i>URI ACTIVITIES (CA)</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>
This effort supported the collection, data mining, and data distribution of open source information that can be used to achieve a tactical advantage.			
<b>Title:</b> Antennas for Unmanned Aerial Vehicles. <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Developed an affordable and miniature antenna structure to be used on Unmanned Aerial Vehicles (UAVs) that are capable of supporting the advanced communication needs of the military. Project addressed the unstable imaging problem that exists with current UAV cameras and investigated antenna structures that are capable of supporting proficient UAVs communication needs in order to recognize their full potential in wartime.		0.995	-
<b>Title:</b> Laboratory for Engineered Human Protection (LEHP). <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Conducted research in innovative solutions for personnel protection.		1.591	-
<b>Title:</b> Collaboration Skills for Time Critical Teams, Squads and Workgroups. <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Developed a crisis communications research center to focus academic and professional expertise on the role of communications in major crises. The ultimate aim is to create opportunities for research which will lead to the development of improved training procedures and the deployment of communications strategies and infrastructure that would help prepare for and mitigate future crises.		1.591	-
<b>Title:</b> Cooperative Developmental Energy Program. <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> The program provided funding for a partnership with the Museum of Aviation Foundation that will investigate new energy investment strategies and best management practices for energy and water conservation.		1.592	-
<b>Title:</b> Manufacturing Lab for Next Generation Engineers.		1.592	-

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>		<b>PROJECT</b> D58: <i>URI ACTIVITIES (CA)</i>
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Investigated energy investment strategies for motivating and attracting scientists and engineers to pursue careers in the energy industry.				
<b>Title:</b> Molecular Electronics for Flash Memory Protection. <b>Description:</b> This is a Congressional Special Interest Item  <b>FY 2010 Accomplishments:</b> Established an accelerated research program focusing on the development and use of ultra-high-density, three-dimensional memory chips for the fabrication of flash memory devices, to be deployed for surveillance activities and communication in the battlefield.		2.388	-	-
<b>Accomplishments/Planned Programs Subtotals</b>		13.728	-	-
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>D. Acquisition Strategy</b> N/A				
<b>E. Performance Metrics</b> Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army								<b>DATE:</b> February 2011			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>				<b>PROJECT</b> D66: <i>MEDICAL UNIVERSITY RESEARCH INITIATIVES (CA)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
D66: <i>MEDICAL UNIVERSITY RESEARCH INITIATIVES (CA)</i>	4.935	-	-	-	-	-	-	-	-	Continuing	Continuing

**A. Mission Description and Budget Item Justification**  
 Congressional Interest Item funding provided for Medical University Research Initiatives.

<b><u>B. Accomplishments/Planned Programs (\$ in Millions)</u></b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b><i>Title:</i></b> Burn and Shock Trauma Institute. <b><i>Description:</i></b> Funding is provided for the following effort  <b><i>FY 2010 Accomplishments:</i></b> This is a Congressional Interest Item.	1.592	-	-
<b><i>Title:</i></b> International Diabetes Research Initiative <b><i>Description:</i></b> This is a Congressional Interest Item.  <b><i>FY 2010 Accomplishments:</i></b> This effort conducted research on new treatment and prevention strategies for diabetes.	2.547	-	-
<b><i>Title:</i></b> Science, Technology, Engineering, Mathematics (STEM) at Coppin State University <b><i>Description:</i></b> This is a Congressional Interest Item.  <b><i>FY 2010 Accomplishments:</i></b> This effort provided opportunities for enhancement of student achievement via the Science, Technology, Engineering, mathematics (STEM) efforts at Coppin State University.	0.796	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	4.935	-	-

**C. Other Program Funding Summary (\$ in Millions)**  
 N/A

**D. Acquisition Strategy**  
 N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Army		<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>	<b>PROJECT</b> D66: <i>MEDICAL UNIVERSITY RESEARCH INITIATIVES (CA)</i>

**E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 1: Basic Research				R-1 ITEM NOMENCLATURE PE 0601103A: University Research Initiatives				PROJECT V72: MINERVA			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
V72: MINERVA	2.402	15.250	3.338	-	3.338	3.226	3.217	3.205	3.301	Continuing	Continuing

**Note**

Not applicable for this item.

**A. Mission Description and Budget Item Justification**

The objective of this project is to support the Minerva Research Initiative (MRI), a university-based social science research program initiated by the Secretary of Defense in FY09. It focuses on areas in the social sciences that are of strategic importance to U.S. national security policy which have not been substantially pursued in the past. The Minerva research effort will be performed to understand the internal military-political dynamics of repressive regimes, the vulnerabilities of regimes and institutions to various kinds of influence and instability, the nature of crowd dynamics, the potential to influence public opinions and attitudes in diverse cultures, cultural effects on network security and military operations, the influence of technology on military capabilities of potential adversaries and allies, and other intersections of social-cultural issues with military activities. Predictive models and other analysis tools will be developed. Leveraging the expertise in the social sciences within the academic community is needed to provide understanding of the roots of terrorist organizations and the challenges and opportunities for military operations in a culturally diverse environment. Better understanding at a fundamental level and new computational tools will provide a beneficial impact on war fighting capabilities at the national policy, military strategy, operational, and tactical levels, and will enhance the capabilities of intelligence activities at all levels. All research results will be open source.

In FY11, this project consolidated efforts that were initiated under PE 0601103A, Project D55. Existing grants on the studies of the strategic impact of religious and cultural change in the Muslim world; Iraqi perspectives; and studies of terrorist organizations and ideologies; and new approaches to understanding dimensions of national security, conflict and cooperation from that project will be continued in FY12.

Also in FY12, new research activities related to Minerva Outreach and In-House capability will be funded through the Office of the Secretary of Defense.

The cited work is consistent with the Director, Defense Research and Engineering Strategic Basic Research Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan, as well as the requirements of the Army Culture and Foreign Language Strategy.

Work in this project will be executed extramurally by the Army Research Office and National Science Foundation.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Title:</b> Minerva Outreach and In-house Capability	2.402	12.000	0.038
<b>Description:</b> Supports Minerva basic research projects and establishment of a Chairs program at principally military educational institutions.			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2010</b>	<b>FY 2011</b>
<p><b><i>FY 2010 Accomplishments:</i></b> Solicited topics focusing on social science and cultural issues affecting US military warfighting capabilities, the relationship of foreign military and technology capabilities, national and military implications of foreign religious and cultural changes, foreign perspectives of US policy and strategy, terrorist organizations and ideologies, and other issues related to the national security conflict and cooperation.</p> <p><b><i>FY 2011 Plans:</i></b> Extend research areas to new topics, such as new theories of deterrence and the national security implications of energy and climate change. Develop in-house social science capabilities necessary to integrate results from the extramural program into the planning, programming and management processes of the DoD as well as to tap university-based expertise in cutting edge social scientific research areas.</p> <p><b><i>FY 2012 Plans:</i></b> This effort will be funded through the Office of the Secretary of Defense.</p>			
<p><b><i>Title:</i></b> Minerva University Consortia</p> <p><b><i>Description:</i></b> Focuses on studies of the strategic impact of religious and cultural change in the Muslim world.</p> <p><b><i>FY 2011 Plans:</i></b> Continue research initiated in PE 0601103, Project D55 to conduct studies of the relationship of technology and national security in China, the stability vulnerabilities of African states and institutions to environmental stress, and the internal dynamics of the Baathist regime from the Iraqi perspective.</p> <p><b><i>FY 2012 Plans:</i></b> Will further efforts on the three (3) existing projects focusing on social science and cultural issues affecting US military warfighting capabilities: the relationship of foreign military and technology capabilities; national and military implications of foreign religious and cultural changes; foreign perspectives of US policy and strategy; terrorist organizations and ideologies; as well as other issues related to the national security implications of conflict and cooperation.</p>		-	3.250
<b>Accomplishments/Planned Programs Subtotals</b>		2.402	3.338
<b>C. Other Program Funding Summary (\$ in Millions)</b>			
N/A			
<b>D. Acquisition Strategy</b>			
N/A			

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 1: <i>Basic Research</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0601103A: <i>University Research Initiatives</i>	<b>PROJECT</b> V72: <i>MINERVA</i>

**E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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