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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 5: <i>Development &amp; Demonstration (SDD)</i>				PE 0604746A: <i>Automatic Test Equipment Development</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	11.737	14.041	14.375	-	14.375	10.705	11.938	12.060	12.252	Continuing	Continuing
L59: <i>DIAGNOST/EXPERT SYS DE</i>	8.315	10.609	10.879	-	10.879	8.155	8.311	8.420	8.568	Continuing	Continuing
L65: <i>Test Equipment Development</i>	3.422	3.432	3.496	-	3.496	2.550	3.627	3.640	3.684	Continuing	Continuing

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

This program element (PE) provides for development and testing of general-purpose test equipment and of state-of-the-art diagnostics and prognostics technology, software and systems to support the increasingly complex electronic components of the Army's new and upgraded weapon systems. It focuses on implementation of commercial test and diagnostic technologies across multiple weapon platforms to minimize the cost of troubleshooting and maintenance of Army equipment in the field.

Modular, reconfigurable automatic and semi-automatic systems are being developed under this program to satisfy weapon system test and diagnostics requirements. The Next Generation Automatic Test System (NGATS) currently under development will provide state-of-the-art test and diagnostic capabilities to support current and future weapon systems. It is the platform for transitioning Agile Rapid Global Combat Support System (ARGCS) technologies into the Army weapon system support structure, and it will replace several aging automatic test systems (ATS) which are becoming prohibitively expensive to operate and maintain.

This PE also provides for continued development and improvement of general-purpose test equipment and calibration standards with emphasis on the incorporation of digital electronics and tailoring of configurations to improve deployability, mobility and survivability of the support equipment. Artificial intelligence and anticipatory maintenance applications are being developed to support the integration of self-diagnostic capabilities in Army weapons and support systems. The goal of these efforts is to reduce logistics burdens and improve readiness by minimizing the need for external testers and improving the troubleshooting abilities of soldiers in the field.

FY12 Base funding for this program continues development in accordance with Department of Defense and Army policies of the Army standard Next Generation Automatic Test System which will improve deployability and mobility of test and diagnostic equipment and replace aging and obsolete automated equipment currently supporting a number of the Army's vital warfighting systems. It will also develop or significantly modify test equipment to satisfy modular force and homeland security support requirements that cannot be accommodated with test equipment currently available in the commercial marketplace.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0604746A: Automatic Test Equipment Development			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	15.240	14.041	14.425	-	14.425
Current President's Budget	11.737	14.041	14.375	-	14.375
Total Adjustments	-3.503	-	-0.050	-	-0.050
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-3.006	-			
• SBIR/STTR Transfer	-0.497	-			
• Adjustments to Budget Years	-	-	-0.050	-	-0.050

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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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development				PROJECT L59: DIAGNOST/EXPERT SYS DE			
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
L59: DIAGNOST/EXPERT SYS DE	8.315	10.609	10.879	-	10.879	8.155	8.311	8.420	8.568	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
This project funds development of and system enhancements for the Next Generation Automatic Test System (NGATS). The NGATS is a general-purpose automatic test system (ATS) that will provide test and diagnostic capabilities required to support current and future weapons and combat support systems and will facilitate retirement of aging and obsolete test equipment that is imposing increasing logistics and operations and support cost burdens. It is the platform for transitioning Agile Rapid Global Combat Support System (ARGCS) technologies into the Army weapon system support structure. The ARGCS initiative was sponsored by the Department of Defense, and all Services are expected to transition demonstrated technologies into their ATS programs. This project also provides for continuing efforts to upgrade and improve general-purpose automatic test equipment to satisfy test and diagnostic requirements of the Army's new and upgraded weapon systems; development and adaptation of automatic test equipment required to overcome existing deficiencies and voids in organic test and diagnostic capabilities; development and testing of common procedures utilizing existing test program sets and software applications; and market surveys of commercially available test equipment, methods and procedures to determine applicability to Army requirements. The test and diagnostic systems and procedures developed under this project are essential for ensuring the operational readiness, accuracy and effectiveness of the Army's warfighting systems.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: NGATS Increment 1  Articles:  Description: Complete and test NGATS Increment 1 design improvements resulting from operational test  FY 2010 Accomplishments: Completion of NGATS Increment 1 design improvements and testing								1.874	-	-	
								0			
Title: Abrams/Bradley Test Program Set (TPS) Rehost  Articles:  Description: Rehost, test and evaluate initial complement of Abrams/Bradley TPSs for NGATS first unit equipped  FY 2010 Accomplishments: Rehost, test and evaluation of TPSs  FY 2011 Plans: Continue rehost, test and evaluation of TPSs								3.841	4.309	-	
								0	0		
Title: NGATS Logistics Support Products								2.000	0.750	0.500	

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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 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJECT L59: DIAGNOST/EXPERT SYS DE		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<div>Articles:0</div> <div>Description: Develop NGATS initial logistics support products (including provisioning, technical manuals and calibration)</div> <div>FY 2010 Accomplishments: Development of initial logistics support products</div> <div>FY 2011 Plans: Continue development of initial logistics support products</div> <div>FY 2012 Plans: Complete development of initial logistics support products</div>		0	0	
<div>Articles:0.2000</div> <div>Title: Developmental and Operational Follow-on Testing</div> <div>Description: Complete Increment 1 developmental and operational follow-on testing activities</div> <div>FY 2010 Accomplishments: Developmental and operational testing</div> <div>FY 2011 Plans: Continue developmental and operational testing</div> <div>FY 2012 Plans: Complete developmental and operational testing</div>		0.2000	1.5000	0.500
<div>Articles:0.2000</div> <div>Title: NGATS Increment 2</div> <div>Description: Develop and test hardware and software for NGATS Increment 2 system</div> <div>FY 2010 Accomplishments: Continue development and testing of Increment 2 hardware and software</div> <div>FY 2011 Plans: Continue development and testing of Increment 2 hardware and software</div> <div>FY 2012 Plans:</div>		0.2000	0.7500	2.000

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJECT L59: DIAGNOST/EXPERT SYS DE		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue development and testing of Increment 2 hardware and software; initiate development and testing of hardware and software for support of Increment 2 systems (Avenger, Multiple Launch Rocket System, Tube-launched Optically-tracked Wire-guided (TOW) Missile System, Paladin, and Common Remotely Operated Weapons Station (CROWS) II)				
<b>Title:</b> NGATS Electro-Optics Subsystem  <b>Articles:</b>  <b>Description:</b> Develop and test hardware and software for NGATS electro-optics (EO) subsystem (to include the capability to support new ground and aerial sensors for unmanned air and ground vehicles)  <b>FY 2010 Accomplishments:</b> Continue development and testing of hardware and software for NGATS EO subsystem  <b>FY 2011 Plans:</b> Continue development and testing of hardware and software for NGATS EO subsystem  <b>FY 2012 Plans:</b> Continue development and testing of hardware and software for NGATS EO subsystem; initiate development and testing of hardware and software for support of Increment 3 systems (Apache, Kiowa Warrior, CROWS II, and Stryker Remote Weapons Station)		0.200 0	1.500 0	2.962
<b>Title:</b> General-Purpose Shop Replaceable Unit Diagnostic Capability  <b>Articles:</b>  <b>Description:</b> Develop expanded general-purpose shop replaceable unit diagnostic capability  <b>FY 2011 Plans:</b> Initiate development of expanded general-purpose shop replaceable unit diagnostic capability  <b>FY 2012 Plans:</b> Continue development of expanded general-purpose shop replaceable unit diagnostic capability		-	0.500 0	0.500
<b>Title:</b> Abrams/Bradley Test Program Set (TPS) Redesign  <b>Articles:</b>  <b>Description:</b> Redesign, test and evaluate Abrams/Bradley TPSs  <b>FY 2011 Plans:</b>		-	1.000 0	1.000

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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 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>	<b>PROJECT</b> L59: <i>DIAGNOST/EXPERT SYS DE</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
Initiate redesign, test and evaluation of TPSs <b>FY 2012 Plans:</b> Continue redesign, test and evaluation of TPSs			
<b>Title:</b> Additional Software Capabilities  <b>Description:</b> Develop software capabilities to incorporate common logistics operating environment (CLOE)/netcentric and embedded diagnostics data collection and analysis for closed loop diagnostic maintenance in support of condition-based maintenance  <b>FY 2011 Plans:</b> Initiate development of expanded software capabilities  <b>FY 2012 Plans:</b> Continue development of expanded software capabilities		-	0.300 0
<b>Title:</b> Smart TPSs  <b>Description:</b> Develop enhanced smart TPS hardware and software  <b>FY 2012 Plans:</b> Initiate development of enhanced smart TPSs		-	-
<b>Title:</b> Power and Weight Enhancements  <b>Description:</b> Develop power and weight enhancements for NGATS  <b>FY 2012 Plans:</b> Initiate development of power and weight enhancements		-	-
<b>Title:</b> Abrams/Bradley EO TPS Development  <b>Description:</b> Develop Abrams/Bradley TPSs for use with NGATS EO asset  <b>FY 2012 Plans:</b> Initiate development of TPSs		-	-
<b>Accomplishments/Planned Programs Subtotals</b>		8.315	10.609
			10.879

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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 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>	<b>PROJECT</b> L59: <i>DIAGNOST/EXPERT SYS DE</i>	

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• : OPA3, SSN MB4000, Integrated Family of Test Equipment (IFTE)	100.032	105.094	49.437		49.437		86.744	53.395	52.126	Continuing	Continuing

**D. Acquisition Strategy**

This developmental project consists of cooperative in-house and competitive and sole-source contractual actions. When the necessary expertise and capability are available within the Department of Defense, services required for the individual development projects are ordered from the government source; otherwise, commercial contracts are used. Equipment required for developmental projects is obtained by contract from the commercial supplier. Developmental efforts for the Next Generation Automatic Test System (NGATS) are being completed under a sole-source contract awarded to the prime contractor for the Integrated Family of Test Equipment off-platform testers. NGATS will follow an evolutionary acquisition strategy using spiral development. The NGATS Increment 1 will replace the Direct Support Electrical Systems Test Set (DSESTS). Increment 2 and the electro-optics subsystem will replace the Base Shop Test Facility (BSTF) (V)3 and BSTF (V)5 systems.

**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-3, RDT&E Project Cost Analysis: PB 2012 Army											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				PE 0604746A: Automatic Test Equipment Development				L59: DIAGNOST/EXPERT SYS DE					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prototype Development	Various	Northrop Grumman,:Rolling Meadows, IL	13.472	-		2.017		-		2.017	Continuing	Continuing	Continuing
Hardware/Support Items Development	Various	Various,:Various	50.605	2.250		2.262		-		2.262	Continuing	Continuing	Continuing
Software Development/ Verification/Validation	Various	Various,:Various	13.686	6.110		5.100		-		5.100	Continuing	Continuing	Continuing
Subtotal			77.763	8.360		9.379		-		9.379			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management/ Technical Support	Various	Various,:Various	44.591	0.600		0.600		-		0.600	Continuing	Continuing	Continuing
Other Direct	Various	Various,:Various	1.890	0.400		0.400		-		0.400	Continuing	Continuing	Continuing
Subtotal			46.481	1.000		1.000		-		1.000			
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Testing	Various	Various,:Various	2.814	1.000		0.400		-		0.400	Continuing	Continuing	Continuing
Developmental Testing	Various	Various,:Various	0.597	0.249		0.100		-		0.100	Continuing	Continuing	Continuing
Subtotal			3.411	1.249		0.500		-		0.500			
Remarks													
Test Program Set (TPS) test and evalutation is included in the product development cost.													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army									DATE: February 2011					
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development				PROJECT L59: DIAGNOST/EXPERT SYS DE						
				Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals				127.655	10.609		10.879		-		10.879			

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 Army			<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>		<b>PROJECT</b> L59: <i>DIAGNOST/EXPERT SYS DE</i>	

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Full Rate Production Decision Review																												
Full Materiel Release																												
First Unit Equipped																												
NGATS Testing (Increment 1)																												
NGATS Testing (Increment 2)																												
NGATS SDD (EO Subsystem)																												
NGATS Testing (EO Subsystem)																												
NGATS P3I - Netcentric																												
New Systems Test Capability																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2012 Army			<b>DATE:</b> February 2011
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>	<b>PROJECT</b> L59: <i>DIAGNOST/EXPERT SYS DE</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Full Rate Production Decision Review	4	2011	4	2011
Full Materiel Release	1	2012	1	2012
First Unit Equipped	2	2012	2	2012
NGATS Testing (Increment 1)	4	2010	2	2011
NGATS Testing (Increment 2)	3	2010	4	2014
NGATS SDD (EO Subsystem)	3	2010	3	2012
NGATS Testing (EO Subsystem)	3	2012	3	2014
NGATS P3I - Netcentric	3	2012	3	2015
New Systems Test Capability	3	2013	3	2015

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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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development				PROJECT L65: Test Equipment Development			
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
L65: Test Equipment Development	3.422	3.432	3.496	-	3.496	2.550	3.627	3.640	3.684	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
This project supports development and demonstration of state-of-the-art calibration standards and techniques, and upgrades/improvements to existing Army calibration systems. It provides for feasibility studies, market research, inventory analyses, bid sample testing, and prototyping to support calibration systems and general-purpose test and diagnostic equipment acquisitions. Primary efforts under this project include testing of an up-armor ready AN/GSM-421(V2) tactical calibration capability, development of calibration software, development of a calibration capability for chemical and biological agent detection systems and night vision testers, improvement of test and measurement equipment performance envelopes via preplanned product improvements (P3I), and development/evaluation of advanced technology and higher reliability calibration systems and general-purpose test, measurement and diagnostic equipment (TMDE). Preplanned product improvements are underway to current test and measurement systems to overcome deficiencies and voids in existing organic capabilities and to ensure the operational readiness, accuracy, effectiveness and safety of Army weapons and combat support systems. These improvements will employ reconfigurable open electronics architecture and computer-based instrumentation wherever feasible and will be focused on reducing test equipment footprints to improve deployability and mobility in areas of operation.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: AN/GSM-421(V2)  Articles:  Description: Develop and test a tactical, up-armor capable Army calibration system that provides a split-based calibration capability.  FY 2010 Accomplishments: Product development, developmental testing and environmental testing.  FY 2011 Plans: Complete developmental testing and environmental testing. Initiate and complete user testing.								0.783 0	0.595 0	-	
Title: Physical instruments  Articles:  Description: Research, develop and test for physical parameter calibration instrumentation to support areas such as chemical/ biological agent detection systems, night vision testers, hydraulic and pneumatic pressure systems, temperature, etc.  FY 2010 Accomplishments:								0.620 0	0.990 0	0.900	

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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, Article Quantities in Each)</b>		<b>FY 2010</b>	<b>FY 2011</b>
Test and evaluate infrared and liquid flow calibration systems. Procure instrumentation for test equipment and calibration research and development test facility.			
<b>FY 2011 Plans:</b> Research and develop calibration standards for optical, radiation and liquid/gas flow calibration test requirements.			
<b>FY 2012 Plans:</b> Develop and test calibration standards for optical, radiation and liquid/gas flow calibration test requirements.			
<b>Title:</b> Calibration Sets (CALSETS) Software Environment and Calibration		0.773	0.627
<b>Articles:</b>		0	0
<b>Description:</b> Develop and test an Army automated calibration environment and develop calibration procedures. Test efforts in support of DoD Information Assurance Certification and Accreditation Process (DIACAP).			1.305
<b>FY 2010 Accomplishments:</b> Continue development and evaluation of test and calibration procedures. Develop and test effort for DIACAP.			
<b>FY 2011 Plans:</b> Continue development and evaluation of test and calibration procedures. Research and develop calibration software environment issues. Perform testing for DIACAP issues.			
<b>FY 2012 Plans:</b> Continue development and evaluation of test and calibration procedures. Conduct development and testing for a calibration software environment. Perform testing efforts for DIACAP issues.			
<b>Title:</b> Electrical Instruments		1.066	0.900
<b>Articles:</b>		0	0
<b>Description:</b> Research, develop and test electrical parameter calibration instrumentation to support areas such as deployable recertification set, intrinsic electrical standards, electrical transport standards, etc.			0.971
<b>FY 2010 Accomplishments:</b> Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition. Research and develop deployable recertification set capability and transport standards. Procure instrumentation for test equipment and calibration R&D test facility.			
<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				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>			<b>PROJECT</b> L65: <i>Test Equipment Development</i>				
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>							<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>		
Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition. Continue development of deployable recertification set capability. Develop/test transport standards.  <b>FY 2012 Plans:</b> Perform market research and evaluate commercial equipment and develop performance specifications for acquisition. Continue development of deployable recertification set capability. Continue testing of transport standards. Develop/test intrinsic electrical standards.											
<b>Title:</b> Test Equipment Modernization  <div style="text-align: right;"><b>Articles:</b></div>							0.180 0	0.320 0	0.320		
<b>Description:</b> Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition.  <b>FY 2010 Accomplishments:</b> Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition. <b>FY 2011 Plans:</b> Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition. <b>FY 2012 Plans:</b> Perform market research and evaluation of commercial equipment and develop performance specifications for acquisition.											
<b>Accomplishments/Planned Programs Subtotals</b>							3.422	3.432	3.496		
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N10000: <i>Calibration Sets Equipment</i>	16.792	38.778	13.618		13.618					0.000	74.998
• N11000: <i>Test Equipment Modernization</i>	15.478	19.166	30.451		30.451		5.723	24.466	25.927	Continuing	Continuing
<b>D. Acquisition Strategy</b>											
Projects are focused on use of commercial and nondevelopmental item technologies. When programmatic and engineering expertise and capability are available within the Department of Defense, services required for the individual development projects are acquired from the government source; otherwise, commercial services											

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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 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>	<b>PROJECT</b> L65: <i>Test Equipment Development</i>
<p>contracts are used to provide these capabilities. Equipment required for development projects is obtained from the commercial supplier. Candidate commercial equipment and nondevelopmental items are identified and evaluated through market research and government testing and evaluation.</p> <p><b><u>E. Performance Metrics</u></b></p> <p>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.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development				PROJECT L65: Test Equipment Development					
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
In-house Engineering	SS/LH	Civ Labor:various	1.714	0.330		0.600		-		0.600	Continuing	Continuing	Continuing
Subtotal			1.714	0.330		0.600		-		0.600			
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/GSM-421(V2)	C/FFP	Various:TBD	1.613	0.250		-		-		-	Continuing	Continuing	0.000
CALSETS Software Environment and Calibration	C/FFP	Various:TBD	2.100	0.820		1.015		-		1.015	Continuing	Continuing	Continuing
Physical Instruments	C/FFP	Various:TBD	5.000	0.372		0.430		-		0.430	Continuing	Continuing	Continuing
Electrical Instruments	C/FFP	Various:TBD	6.200	0.700		0.851		-		0.851	Continuing	Continuing	0.000
Test Equipment Modernization	Various	Various:Various	-	0.110		0.120		-		0.120	Continuing	Continuing	0.000
Subtotal			14.913	2.252		2.416		-		2.416			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Engineering	Various	Various:various	1.587	0.250		-		-		-	Continuing	Continuing	0.000
Subtotal			1.587	0.250		-		-		-			0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/GSM-421(V2)	Various	Various:Various	0.150	0.200		-		-		-	Continuing	Continuing	0.000
Physical Instruments	Various	Various:Various	0.900	0.100		0.100		-		0.100	Continuing	Continuing	0.000
	Various	Various:Various	-	0.100		0.150		-		0.150	Continuing	Continuing	0.000

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2012 Army											<b>DATE:</b> February 2011		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604746A: <i>Automatic Test Equipment Development</i>				<b>PROJECT</b> L65: <i>Test Equipment Development</i>					

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
CALSETS Software Environment and Calibration													
Electrical Instruments	Various	Various:Various	1.013	0.100		0.130		-		0.130	Continuing	Continuing	0.000
Test Equipment Modernization	C/FFP	Various:TBD	-	0.100		0.100		-		0.100	Continuing	Continuing	0.000
<b>Subtotal</b>			2.063	0.600		0.480		-		0.480			0.000

  

	<b>Total Prior Years Cost</b>	<b>FY 2011</b>		<b>FY 2012 Base</b>		<b>FY 2012 OCO</b>		<b>FY 2012 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	20.277	3.432		3.496		-		3.496			

  

**Remarks**