Exhibit R-2, **RDT&E Budget Item Justification:** PB 2013 Army **DATE**: February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0604746A: Automatic Test Equipment Development

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	13.553	14.361	10.815	-	10.815	11.983	11.911	12.367	12.575	Continuing	Continuing
L59: DIAGNOST/EXPERT SYS DE	10.243	10.869	8.237	-	8.237	8.387	8.308	8.639	8.784	Continuing	Continuing
L65: Test Equipment Development	3.310	3.492	2.578	-	2.578	3.596	3.603	3.728	3.791	Continuing	Continuing

A. Mission Description and Budget Item Justification

PE 0604746A: Automatic Test Equipment Development

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.

FY 2013 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.

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army

PE 0604746A: Automatic Test Equipment Development

BA 5: Development & Demonstration (SDD)

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	14.041	14.375	10.705	-	10.705
Current President's Budget	13.553	14.361	10.815	-	10.815
Total Adjustments	-0.488	-0.014	0.110	-	0.110
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.396	-			
 Adjustments to Budget Years 	-	-	0.110	-	0.110
Other Adjustments 1	-0.092	-0.014	-	-	-

Exhibit R-2A, RDT&E Project Just	ification: PE	3 2013 Army					DATE: February 2012				
APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test BA 5: Development & Demonstration		R-1 ITEM N PE 060474 Developme	6A: Automat	_	oment	PROJECT L59: DIAGNOST/EXPERT SYS DE					
COST (\$ in Millions)	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
L59: DIAGNOST/EXPERT SYS DE	10.243	10.869	8.237	-	8.237	8.387	8.308	8.639	8.784	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 2011	FY 2012	FY 2013
Title: Abrams/Bradley Test Program Set (TPS) Rehost	4.309	-	-
Articles:	0		
Description: Rehost, test and evaluate inital complement of Abrams/Bradley TPSs for NGATS first unit equipped			
FY 2011 Accomplishments:			
Complete rehost, test and evaluation of TPSs			
Title: NGATS Logistics Support Products	0.750	0.500	0.500
Articles:	0	0	
Description: Develop NGATS initial logistics support products (including provisioning, technical manuals and calibration)			
FY 2011 Accomplishments:			
Continue development of initial logistics support products			
FY 2012 Plans:			
Continue development of initial logistics support products			
FY 2013 Plans:			

PE 0604746A: Automatic Test Equipment Development

Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Feb	ruary 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJEC L59: DIA	ECT DIAGNOST/EXPERT SYS DE			
B. Accomplishments/Planned Programs (\$ in Millions, Article	e Quantities in Each)		FY 2011	FY 2012	FY 2013	
Complete development of initial logistics support products	·					
Title: Developmental and Operational Follow-on Testing		Articles:	1.134 0	0.200 0	-	
Description: Complete Increment 1 developmental and operation	nal follow-on testing activities					
FY 2011 Accomplishments: Continue developmental and operational testing						
FY 2012 Plans: Complete developmental and operational testing						
Title: NGATS Increment 2		Articles:	0.750 0	3.000	1.500	
Description: Develop and test hardware and software for NGAT	S Increment 2 system					
FY 2011 Accomplishments: Continue development and testing of Increment 2 hardware and	software					
FY 2012 Plans: Continue development and testing of Increment 2 hardware and software for support of Increment 2 systems (Avenger, Multiple L guided (TOW) Missile System, Paladin, and Common Remotely	aunch Rocket System, Tube-launched Optically-track					
FY 2013 Plans: Continue development and testing of Increment 2 hardware and software for support of Increment 2 systems (Avenger, Multiple L guided (TOW) Missile System, Paladin, and Common Remotely	aunch Rocket System, Tube-launched Optically-track					
Title: NGATS Electro-Optics Subsystem		Articles:	1.500 0	2.252 0	2.655	
Description: Develop and test hardware and software for NGAT support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new ground and aerial sensors for unmanned air and ground are support new groun		oility to				
FY 2011 Accomplishments:						

PE 0604746A: *Automatic Test Equipment Development* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fel	bruary 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJEC L59: <i>DIA</i> 0	ECT DIAGNOST/EXPERT SYS DE				
B. Accomplishments/Planned Programs (\$ in Millions, Articl	•		FY 2011	FY 2012	FY 2013		
Continue development and testing of hardware and software for	NGATS EO subsystem						
FY 2012 Plans: Continue development and testing of hardware and software for hardware and software for support of Increment 3 systems (Apa Station)							
FY 2013 Plans: Continue development and testing of hardware and software for hardware and software for support of Increment 3 systems (Apa Station)							
Title: General-Purpose Shop Replaceable Unit Diagnostic Capa	ability	Articles:	0.500 0	0.500 0	0.500		
Description: Develop expanded general-purpose shop replaced	able unit diagnostic capability						
FY 2011 Accomplishments: Initiate development of expanded general-purpose shop replace	eable unit diagnostic capability						
FY 2012 Plans: Continue development of expanded general-purpose shop repla	aceable unit diagnostic capability						
FY 2013 Plans: Continue development of expanded general-purpose shop repla	aceable unit diagnostic capability						
Title: Abrams/Bradley Test Program Set (TPS) Redesign		Articles:	1.000 0	1.000 0	0.500		
Description: Redesign, test and evaluate Abrams/Bradley TPS:	s						
FY 2011 Accomplishments: Initiate redesign, test and evaluation of TPSs							
FY 2012 Plans: Continue redesign, test and evaluation of TPSs							
FY 2013 Plans: Continue redesign, test and evaluation of TPSs							
Title: Additional Software Capabilities			0.300	0.800	0.500		

PE 0604746A: Automatic Test Equipment Development Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJEC	Т		
2040: Research, Development, Test & Evaluation, Army	PE 0604746A: Automatic Test Equipment	L59: <i>DIA</i>	GNOST/EXPI	ERT SYS DE	
BA 5: Development & Demonstration (SDD)	Development				
B. Accomplishments/Planned Programs (\$ in Millions, Articl	e Quantities in Each)		FY 2011	FY 2012	FY 2013
		Articles:	0	0	
Description: Develop software capabilities to incorporate commembedded diagnostics data collection and analysis for closed log maintenance					
FY 2011 Accomplishments: Initiate development of expanded software capabilities					
FY 2012 Plans: Continue development of expanded software capabilities					
FY 2013 Plans: Continue development of expanded software capabilities					
Title: Smart TPSs		Articles:	-	0.600	0.500
Description: Develop enhanced smart TPS hardware and softw	vare				
FY 2012 Plans: Initiate development of enhanced smart TPSs					
FY 2013 Plans: Continue development of enhanced smart TPSs					
Title: Power and Weight Enhancements		Articles:	-	0.517 0	0.500
Description: Develop power and weight enhancements for NGA	ATS				
FY 2012 Plans: Initiate development of power and weight enhancements					
FY 2013 Plans: Continue development of power and weight enhancements					
Title: Abrams/Bradley EO TPS Development		Articles:	-	1.500 0	1.082

PE 0604746A: Automatic Test Equipment Development Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army	DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604746A: Automatic Test Equipment	L59: DIAGI	NOST/EXPERT SYS DE
BA 5: Development & Demonstration (SDD)	Development		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Develop Abrams/Bradley TPSs for use with NGATS EO asset			
FY 2012 Plans: Initiate development of TPSs			
FY 2013 Plans: Continue development of TPSs			
Accomplishments/Planned Programs Subtotal	10.243	10.869	8.237

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	Base	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
• .: OPA3, SSN MB4000,	103.323	36.937	45.508		45.508		78.239	70.126	65.406	Continuing	Continuing
Integrated Family of Test											

Integrated Family of Test Equipment (IFTE)

_ _

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. Full-rate production of the system will be a competitive award. NGATS is following an evolutionary acquisition strategy using incremental 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 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604746A: Automatic Test Equipment

Development

DATE: February 2012

PROJECT

L59: DIAGNOST/EXPERT SYS DE

Product Development	Product Development (\$ in Millions)				FY 2012		FY 2013 Base		2013 CO	FY 2013 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	SS/CPFF	Northrop Grumman, Rolling Meadows, IL:.	13.472	2.252		1.062		-		1.062	Continuing	Continuing	Continuing
Hardware/Support Items Development	Various	Various,:Various	55.129	2.317		1.438		-		1.438	Continuing	Continuing	Continuing
Software Development/ Verification/Validation	Various	Various,:Various	23.271	5.100		4.737		-		4.737	Continuing	Continuing	Continuing
		Subtotal	91.872	9.669		7.237		-		7.237			

Support (\$ in Millions)			FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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	46.691	0.600		0.600		-		0.600	Continuing	Continuing	Continuing
Other Direct	Various	Various,:Various	2.790	0.400		0.400		-		0.400	Continuing	Continuing	Continuing
	•	Subtotal	49.481	1.000		1.000		-		1.000			

Test and Evaluation (\$	in Millions	5)		FY 2012					FY 2013 FY 2013 OCO 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	3.814	0.200		-		-		-	Continuing	Continuing	Continuing
Developmental Testing	Various	Various,:Various	1.046	-		-		-		-	Continuing	Continuing	Continuing
	•	Subtotal	4.860	0.200		-		-		-			

Remarks

Test program set (TPS) and contractor developmental test and evalutation are included in the product development cost.

PE 0604746A: Automatic Test Equipment Development Army

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Exhibit R-3, RD1&E Project Cost Analysis: PB 2013 Army					DAII	=: ⊢ebruar	y 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NO	MENCLATURE		PROJE	PROJECT				
2040: Research, Development, Test & Evaluation, Army	PE 0604746A	: Automatic Test Equ	L59: <i>DI</i>	AGNOST	EXPERT S	SYS DE			
BA 5: Development & Demonstration (SDD)	Development								
Total Prior	•							Tarnet	

Т	Total Prior Years Cost	FY 2012	FY 201 Base			Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	146.213	10.869	8.237	-	8.237			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army											
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT									
2040: Research, Development, Test & Evaluation, Army	PE 0604746A: Automatic Test Equipment	L59: DIAGNOST/EXPERT SYS DE									
BA 5: Development & Demonstration (SDD)	Development										
	•	•									

		FY 2011		FY 2012		2	FY 2013			FY 2014			FY 2015			FY 2016			FY 2017									
	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 (EO Subsystem)																												
NGATS P3I - Netcentric																												
New Systems Test Capability																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

PATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0604746A: Automatic Test Equipment
Development
Development

Schedule Details

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

Exhibit R-2A, RDT&E Project Justi		DATE: February 2012									
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM N PE 0604746 Developmen	6A: Automati			PROJECT L65: Test Equipment Development			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
L65: Test Equipment Development	3.310	3.492	2.578	-	2.578	3.596	3.603	3.728	3.791	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

PE 0604746A: Automatic Test Equipment Development

This project supports development and demonstration of state-of-the-art calibration instruments and test methods and upgrades/improvements to existing Army calibration systems. It provides for laboratory and feasibility studies, market research, inventory analysis, bid sample testing, and prototyping to support calibration systems and general-purpose test and diagnostic equipment acquisitions. Primary efforts under this project include development of calibration software; development of calibration capability for chemical and biological agent detection systems, aviation test equipment and night vision testers; improvement of test and measurement equipment performance envelopes via preplanned product improvements (P3I); and development/evaluation of advance technology and higher reliability calibration systems and general-purpose test, measurement and diagnostic equipment (TMDE). Preplanned product improvements to current test and measurement systems are underway to overcome deficiencies and voids in existing organic capabilities ensuring 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 the test equipment footprints to improve deployability and mobility in areas of operation.

Articles: 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 2011 Accomplishments: Complete developmental testing and environmental testing. Inititate user testing.	0.595 0	0.050 0	-
Description: Develop and test a tactical, up-armor capable Army calibration system that provides a split-based calibration apability. FY 2011 Accomplishments:	0	0	
apability. FY 2011 Accomplishments:			
•			
- F			
FY 2012 Plans: Complete user testing.			
Fitle: Physical Instruments	0.990	0.850	0.427
Articles:	0	0	
Description: Research, develop and test physical parameter calibration instrumentation to support areas such as chemical/ piological agent detection systems, night vision testers, hydraulic and pneumatic pressure systems, temperature, etc.			
FY 2011 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJEC L65: Test	t Equipment D	Development	
B. Accomplishments/Planned Programs (\$ in Millions, Article	·		FY 2011	FY 2012	FY 2013
Research and develop calibration standards for optical, radiation FY 2012 Plans:	and liquid/gas flow calibration test requirements.				
Develop and test calibration standards for optical, radiation and li	iquid/gas flow calibration test requirements.				
FY 2013 Plans: Complete development and test of liquid hydrocarbon flow calibration standards for biological and chemical agent detectors pneumatic and hydraulic transport standards.					
Title: Calibration Sets (CALSETS) Software Environment and Ca	alibration	Articles:	0.627 0	1.301 0	1.12
Description: Develop and test an Army automated calibration en support of DoD Information Assurance Certification and Accredita		efforts in			
FY 2011 Accomplishments: Continue development and evaluation of test and calibration procissues. Perform testing for DIACAP issues.	cedures. Research and develop calibration software e	nvironment			
FY 2012 Plans: Continue development and evaluation of test and calibration procesoftware environment. Perform testing efforts for DIACAP issues		ation			
FY 2013 Plans: Continue development and evaluation of calibration procedures. initial release of a calibration software environment.	Perform testing efforts for DIACAP issues. Complete	testing for			
Title: Electrical Instruments		Articles:	0.778 0	0.971	0.97
Description: Research, develop and test electrical parameter carecertification set, intrinsic electrical standards, electrical transport		loyable			
FY 2011 Accomplishments: Perform market research and evaluation of commercial equipment Continue development of deployable recertification set capability.		on.			
FY 2012 Plans:					

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PE 0604746A: Automatic Test Equipment Development Page 13 of 17 R-1 Line #105 Army

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604746A: Automatic Test Equipment Development	PROJEC L65: Test	T Equipment D	Development	
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2011	FY 2012	FY 2013
Perform market research and evaluate commercial equipment an development of deployable recertification set capability. Continue standards.					
FY 2013 Plans:					
Perform market research and evaluate commercial equipment an calibration standards package. Develop requirements and specif development and initiate testing of a deployable recertification se voltage standard.	ications for small, practical intrinsic voltage standard.	Complete			
Title: Test Equipment Modernization		Autiology	0.320	0.320	0.050
Description: Perform market research and evaluation of commeracquisition.	rcial equipment and develop performance specification	Articles:	0	0	
FY 2011 Accomplishments: Perform market research and evaluation of commercial equipmer	nt and develop performance specifications for acquisiti	on.			
FY 2012 Plans: Perform market research and evaluation of commercial equipmer	nt and develop performance specifications for acquisiti	on.			
FY 2013 Plans: Perform market research and evaluation of commercial equipmer	nt and develop performance specifications for acquisiti	on.			
·	Accomplishments/Planned Programs		3.310	3.492	2.578

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	Base	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
SSN N10000: Calibration Sets	38.560	13.618	10.494		10.494		7.798	7.771	9.136	Continuing	Continuing
Equipment											
SSN N11000: Test Equipment	18.064	30.451	24.334		24.334		24.856	26.322	26.778	Continuing	Continuing
Modernization											

D. Acquisition Strategy

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

PE 0604746A: Automatic Test Equipment Development

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Army

Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE : February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0604746A: Automatic Test Equipment	L65: Test Equipment Development
BA 5: Development & Demonstration (SDD)	Development	
contracts are used to provide these capabilities. Equipment required f		
equipment and nondevelopmental items are identified and evaluated the	hrough market research and government testing	g and evaluation.
E. Performance Metrics		
Performance metrics used in the preparation of this justification materi	al may be found in the FY 2010 Army Performa	ince Budget Justification Book, dated May 2010.
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PE 0604746A: *Automatic Test Equipment Development* Army

DATE: February 2012 Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 2040: Research, Development, Test & Evaluation, Army PE 0604746A: Automatic Test Equipment L65: Test Equipment Development BA 5: Development & Demonstration (SDD) Development FY 2013 FY 2013 FY 2013 Management Services (\$ in Millions) FY 2012 Base oco Total **Total Prior** Target Contract Method Performing Years Award Award Award Cost To Value of **Cost Category Item Activity & Location** Cost Date Cost Date Cost Date Complete **Total Cost** Contract & Type Cost Cost 0.700 In-house Engineering SS/LH Civ Labor various 2.416 0.600 0.700 Continuina Continuina 0.000 Subtotal 2.416 0.600 0.700 0.700 0.000 FY 2013 FY 2013 FY 2013 **Product Development (\$ in Millions)** oco Total FY 2012 Base **Total Prior** Contract Target Method Performing Years Award Award Award Cost To Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract CALSETS Software Various:Various 1.011 0.600 0.600 Continuing Continuing 0.000 Various 4.098 **Environment and Calibration** AN/GSM-421(V2) Various Various: Various 2.346 Continuing Continuing 0.000 0.380 0.250 Physical Instruments Various Various: Various 5.632 0.250 Continuina Continuina 0.000 **Electrical Instruments** Various Various: Various 7.287 0.851 0.578 0.578 Continuing Continuing 0.000 0.120 0.050 0.050 0.000 Test Equipment Modernization Various Various: Various 0.110 Continuing Continuing Subtotal 19.473 2.362 1.478 1.478 0.000 **FY 2013 FY 2013** FY 2013 Support (\$ in Millions) oco FY 2012 Base Total Contract **Total Prior Target** Method Performing Years Award Award Award Cost To Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract Contract Engineering Various Various:various 1.837 Continuina Continuina 0.000 Subtotal 1.837 0.000 FY 2013 FY 2013 FY 2013 Test and Evaluation (\$ in Millions) FY 2012 Base oco Total Contract **Total Prior Target** Method Performing Years Cost To Value of Award Award Award **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract AN/GSM-421(V2) 0.050 Various Various:Various 0.570 Continuing Continuing 0.000 Physical Instruments Various Various Various 1.200 0.100 0.075 0.075 Continuina Continuina 0.000 CALSETS Software Various: Various 0.150 0.150 0.200 0.200 Continuing Continuing 0.000 Various **Environment and Calibration**

PE 0604746A: Automatic Test Equipment Development Army

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army

Project Cost Totals

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604746A: Automatic Test Equipment

2.578

Development

3.492

27.009

PROJECT

L65: Test Equipment Development

2.578

DATE: February 2012

0.000

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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
Electrical Instruments	Various	Various:Various	1.263	0.130		0.075		-		0.075	Continuing	Continuing	0.000
Test Equipment Modernization	Various	Various:Various	0.100	0.100		0.050		-		0.050	Continuing	Continuing	0.000
		Subtotal	3.283	0.530		0.400		-		0.400			0.000
			Total Prior Years Cost	FY 2	2012	FY 2 Ba		FY 2		FY 2013 Total	Cost To	Total Cost	Target Value of Contract

Remarks

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