

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2003

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604746A - Automatic Test Equipment Development

COST (In Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	12751	12899	4634	4707	7540	7918	11101	11329	Continuing	Continuing
L59 DIAGNOST/EXPERT SYS DE	4065	5220	3582	3564	5038	5295	7765	7925	0	44135
L65 TEST EQUIPMENT DEVELOPMENT	940	936	1052	1143	2502	2623	3336	3404	Continuing	Continuing
L66 EMBEDDED DIAGNOSTICS/PROGNOSTICS DEVELOPMENT	7746	6743	0	0	0	0	0	0	0	20749

A. Mission Description and Budget Item Justification: This program element (PE) provides for the development and testing of calibration equipment, general-purpose test equipment, off-platform diagnostic/prognostic equipment, and embedded diagnostics technology and software to support the increasingly complex electronic weapon systems. The PE focuses on commercial state-of-the-art test technologies common to multiple weapon platforms; thereby, minimizing the cost of troubleshooting and maintenance in the field. The program also provides for the development and evolution of general-purpose automatic test/diagnostic equipment; the enhancements required to overcome existing deficiencies and voids in organic test and diagnostic capabilities which ensure the operational readiness, accuracy, and effectiveness of combat support systems.

This program also provides for the Army's participation in development of a Joint Service Automatic Test System (ATS) architecture (NxTest). The Joint Service system will preclude proliferation of Service-specific ATSs in a theater. The goal of NxTest is to reduce Department of Defense equipment, personnel, and funding burdens by allowing all Services' test program sets to execute on common test system architecture. The Next Generation Automatic Test System; i.e., Base Shop Test Facility(BSTF) (V) 6. The BSTF (V) 6 being developed will provide test capabilities for the current, interim, and future combat systems.

This program element further provides for the development of modular, reconfigurable automatic and semi-automatic systems to satisfy weapon system requirements, calibration and repair requirements for general-purpose test, measurement, and diagnostic equipment. The development of a rapidly deployable calibration set with emphasis on digital electronics and tailored to support Army field units is provided within this PE. The calibration set will alleviate deployability and survivability shortfalls in the current systems, and will with preplanned product improvement upgrade capabilities.

Also included in this PE are systems and artificial intelligence applications for the Army Diagnostics Improvement Program (ADIP) to support the horizontal technology integration of self-diagnostic technology in Army weapon systems. The goal of embedded diagnostics is to reduce the logistical burden and improve readiness through minimizing the need for external testers and to improve the troubleshooting abilities of soldiers in the field. This program is terminated in FY03.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)**February 2003****BUDGET ACTIVITY****5 - System Development and Demonstration****PE NUMBER AND TITLE****0604746A - Automatic Test Equipment Development**

These projects support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

<u>B. Program Change Summary</u>	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	13174	11839	12274	10253
Current Budget (FY 2004/2005 PB)	12751	12899	4634	4707
Total Adjustments	-423	1060	-7640	-5546
Congressional program reductions	-4	-209		
Congressional rescissions		-73		
Congressional increases		1700		
Reprogrammings	-65			
SBIR/STTR Transfer	-354	-358		
Adjustments to Budget Years			-7640	-5546

Funding reduced in FY04 and FY05 in project L66, Embedded Diagnostics/Prognostics Development supports other higher Army requirements.

FY03 funds reflect a Congressional Plus-Up of \$1.7M for Project L59 to support Electro-Optic Test Facility (EOTF).

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2003				
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L59			
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
L59	DIAGNOST/EXPERT SYS DE	4065	5220	3582	3564	5038	5295	7765	7925	0	44135
<p>A. Mission Description and Budget Item Justification: This project funds development of general-purpose automatic test/diagnostic equipment and system enhancements. These systems and equipment are required to overcome existing deficiencies and voids in organic test and diagnostic capabilities and to ensure operational readiness, accuracy, and effectiveness for weapon and combat support systems. Currently being developed is the Next Generation Automatic Test System; i.e., Base Shop Test Facility (BSTF) (V) 6. The BSTF (V) 6 which will provide test capabilities for the current, interim, and future combat systems. This project provides: 1) the improvement of general-purpose automatic test equipment to meet the new Army systems' testing and technological requirements; 2) market surveys of commercially available test equipment, methods, and procedures to determine applicability to Army requirements; 3) the development and validation of test and diagnostic software; and 4) the Army's participation in the Joint Services NxTest Technical Working Group.</p> <p>The project supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).</p>											
Accomplishments/Planned Program							FY 2002	FY 2003	FY 2004	FY 2005	
Evaluated hardware enhancements for Electro-Optic Test Facility (EOTF).							525	0	0	0	
Evaluate new electro-optic technologies for the Integrated Family of Test Equipment (IFTE).							474	303	200	207	
Develop and evaluate new software applications for the IFTE.							874	689	605	625	
Provide prototype development of a more rapidly deployable automatic test system.							762	4228	0	0	
Conduct Next Generation Automatic Test System testing.							0	0	2777	2732	
Conducted Electro-Optics Test Facility Customer Test.							1430	0	0	0	
Totals							4065	5220	3582	3564	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								February 2003																								
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L59																							
<div style="border: 1px solid black; margin-bottom: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%; padding: 5px;"><u>B. Other Program Funding Summary</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2002</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2003</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2004</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2005</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2006</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2007</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2008</u></th> <th style="width: 5%; padding: 5px;"><u>FY 2009</u></th> <th style="width: 5%; padding: 5px;"><u>To Compl</u></th> <th style="width: 5%; padding: 5px;"><u>Total Cost</u></th> </tr> <tr> <td style="padding: 5px;">OPA3, MB4000, Integrated Family of Test Equipment (IFTE)</td> <td style="text-align: center; padding: 5px;">64970</td> <td style="text-align: center; padding: 5px;">66254</td> <td style="text-align: center; padding: 5px;">27952</td> <td style="text-align: center; padding: 5px;">22477</td> <td style="text-align: center; padding: 5px;">41956</td> <td style="text-align: center; padding: 5px;">57204</td> <td style="text-align: center; padding: 5px;">115155</td> <td style="text-align: center; padding: 5px;">132101</td> <td style="text-align: center; padding: 5px;">Continuing</td> <td style="text-align: center; padding: 5px;">Continuing</td> </tr> </table> </div> <div style="padding: 10px;"> <p><u>C. Acquisition Strategy:</u> When the necessary expertise and capability are available within the Department of Defense (DoD), services required for the individual developmental 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 Electro-Optics Test Facility preplanned product improvement are being completed under a sole source contract awarded to the prime contractor for the system. This developmental effort consists of cooperative in-house and competitive contractual action.</p> </div>											<u>B. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>	OPA3, MB4000, Integrated Family of Test Equipment (IFTE)	64970	66254	27952	22477	41956	57204	115155	132101	Continuing	Continuing
<u>B. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>																						
OPA3, MB4000, Integrated Family of Test Equipment (IFTE)	64970	66254	27952	22477	41956	57204	115155	132101	Continuing	Continuing																						

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L59		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Systems Engineering - ADIP Electro Optic Test Fac (EOTS)	SS/CPFF	Northrop Grumman, Rolling Meadows, IL	4365	4229	2-3Q	2963	1-2Q	2932	2Q	Continue	Continue	0
b . Software Development ADIP - EOTS	SS/CPFF	Northrop Grumman, Rolling Meadows, IL	2147	0		0		0		0	2147	0
c . Systems Engineering ADIP - EOTS	Various	Various	37067	0		0		0		0	37067	0
d . Software Development - ADIP - EOTS	Various	Various	24923	0		0		0		0	24923	0
e . Government Engineering - ADIP - EOTS	Various	Various	7966	597	2Q	225	1-2Q	227	1-3Q	Continue	Continue	0
Subtotal:			76468	4826		3188		3159		Continue	Continue	0

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L59		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Contractor Technical Services - EOTS	Various	Various	1167	105	1-2Q	112	1-2Q	116	1-2Q	Continue	Continue	0
Subtotal:			1167	105		112		116		Continue	Continue	0
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Electro-Optic Test Facility Customer Test	Various	Various	1430	0		0		0		0	1430	0
b . Next Generation Automatic Test System Test	Various	Various	481	0		0		0		0	481	0
Subtotal:			1911	0		0		0		0	1911	0

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L59		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management Personnel	Various	Various	7565	289	1-4Q	282	1-4Q	289	1-4Q	Continue	Continue	0
Subtotal:			7565	289		282		289		Continue	Continue	0
Project Total Cost:			87111	5220		3582		3564		Continue	Continue	0

Schedule Profile Detail (R-4a Exhibit)							February 2003	
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L59
<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Complete Electro-Optic Test Facility (EOTF) Customer Test	3-4Q							
EOTF Type Classification-Standard/Materiel Release Approval		4Q						
EOTF Initial Operational Capability			1-3Q					
Next Generation Automatic Test System Prototype Development	4Q	1-4Q	2-3Q	1-4Q	1-4Q			
Next Generation Automatic Test System Tesing					3-4Q			
Next Generation Automatic Test System Milestone C						4Q		
Software Development and evaluation for Next Generation Electro-Optic Test Set							1-4Q	1-4Q
NOTE: The Base Shop Test Facility (BSTF) (V)6 will replace Direct Support Electrical System Test Set (DSESTS) and BSTF (V) 3.								

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L65			
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
L65	TEST EQUIPMENT DEVELOPMENT	940	936	1052	1143	2502	2623	3336	3404	Continuing	Continuing
<p>A. Mission Description and Budget Item Justification: This project funds development and demonstration of the next generation calibration equipment and Calibration Set 2000 (CALSET 2000) system enhancements. The CALSET 2000 rapidly deployable calibration set is required to overcome existing deficiencies and voids in organic calibration and repair capabilities and to ensure the operational readiness, accuracy, and effectiveness of the weapon and combat support systems. The CALSET 2000 and the preplanned product improvements (P3I) developed under this project will employ reconfigurable open electronics architecture and computer-based calibration instrumentation wherever feasible, and will be housed in transport configurations to allow airlift via C-141/C-130 aircraft. This project also supports: studies, market research, inventory analyses, bid sample testing, prototyping, test measurement, and diagnostic equipment (TMDE) and calibration standards acquisitions. The project provides 1) improvement of the CALSET 2000 performance envelope via P3I to meet systems testing and technological requirements; 2) the development and validation of calibration software; 3) evaluation of commercial and nondevelopmental TMDE with potential to meet weapon system maintenance requirements; and 4) evaluate higher reliability, open architecture electronics test and calibration equipment.</p> <p>This project supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).</p>											
Accomplishments/Planned Program							FY 2002	FY 2003	FY 2004	FY 2005	
Continued development and testing of laser torque calibrator prototype.							100	0	0	0	
Develop hardware via preplanned product improvements for the CALSET 2000 to enhance performance envelope.							574	488	310	323	
Test hardware developed for the preplanned product improvements for the CALSET 2000.							80	98	115	115	
Integrate hardware developed via preplanned product improvements into the CALSET 2000.							0	100	100	100	
Initiate study and development of enhanced diagnostic repair capability, build prototype, test, and integration of the Echelon Above Corp Calibration Set.							0	50	150	190	
Develop and evaluate calibration software.							56	70	72	50	
Develop prototype of Gas Mask Calibration system.							0	0	155	175	
Perform market research and evaluation of commercial equipment and develop performance specifications for acquisitions.							130	130	150	190	
Totals							940	936	1052	1143	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L65	
B. Other Program Funding Summary	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
OPA3, N10000, Calibration Sets Equipment	15819	15924	18304	18163	19588	20099	19487	19760	Continuing	Continuing
OPA3, N11000, Test Equipment Modernization	15387	16328	14718	15105	14380	20488	21598	21577	Continuing	Continuing
<p>C. Acquisition Strategy: Projects are focused on use of commercial and nondevelopmental item technologies. When 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 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>										

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L65		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Systems Engineering - Calibration Sets Eq, (CAL Sets)	Various	Various	4632	411	1-2Q	502	1-2Q	605	1-2Q	Continue	Continue	0
b . Software Development and Evaluation - Calibration Sets Eq, (CAL Sets)	Various	Various	1738	70	2Q	72	2Q	50	1-3Q	Continue	Continue	0
c . Government Engineering - Calibration Sets Eq, (CAL Sets)	Various	Various	912	128	1-4Q	130	1-4Q	133	1-4Q	Continue	Continue	0
Subtotal:			7282	609		704		788		Continue	Continue	0

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L65		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Technical Support Services	Various	Various	438	100	2Q	103	2Q	107	2Q	Continue	Continue	0
Subtotal:			438	100		103		107		Continue	Continue	0
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Testing	Various	Various	662	98	1-2Q	115	1-2Q	115	1-2Q	Continue	Continue	0
Subtotal:			662	98		115		115		Continue	Continue	0

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L65		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management Personnel	Various	Various	125	129	1-4Q	130	1-4Q	133	1-4Q	Continue	Continue	0
Subtotal:			125	129		130		133		Continue	Continue	0
Project Total Cost:			8507	936		1052		1143		Continue	Continue	0

Schedule Profile Detail (R-4a Exhibit)							February 2003	
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L65
<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
CALSET 2000 Initial Operational Capability		1Q						
CALSET 2000 Preplanned Product Improvements - Development	2-3Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
CALSET 2000 Preplanned Product Improvements - Testing	3Q	1-2Q	1-3Q	1-3Q	1-3Q	1-3Q	1-3Q	1-3Q
CALSET 2000 Preplanned Product Improvements - Integration		3-4Q	3-4Q	3-4Q	3-4Q	3-4Q	3-4Q	3-4Q
Echelon Above Corps Cal Set - begin development		3Q						
Echelon Above Corps Cal Set - Testing					1Q			
Echelon Above Corps - Milestone C						2Q		
Echelon Above Corps - Initial Operational Capability							2Q	
Reference Level Gas Mask Calibration System - Development Completed				4Q				
Reference Level Gas Mask Calibration System - Testing					1Q			
Market research and evaluation of commercial equipment, development of performance specifications	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
This is a continuing program of developmental activities to provide a means for satisfying test and diagnostic support requirements of Army weapons and support systems. It consists of a number of similar and related efforts, many of which do not entail distinct major milestones. Major milestones for the CALSET 2000 Calibration Set, Echelon Above Corps Calibration Set, and Gas Mask Calibration System being developed under this project are shown in the table above.								

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COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
L66	EMBEDDED DIAGNOSTICS/PROGNOSTICS DEVELOPMENT	7746	6743	0	0	0	0	0	0	0	20749
<p><u>A. Mission Description and Budget Item Justification:</u> This project funds the development and demonstration efforts of the Army Diagnostics Improvement Program (ADIP). The ADIP has two main thrusts: 1) support embedded diagnostics for interim and objective force Army platforms, 2) and develop a prognostic capability through an anticipatory maintenance system. ADIP develops and tests common procedures, software applications, and hardware devices that can be embedded in weapon systems. Included in this effort is a common Health and Usage Monitoring System (HUMS) for Army helicopters. A similar system is being explored for ground-based systems. The ADIP system will be terminated ending in FY03.</p> <p>This project supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).</p>											
<u>Accomplishments/Planned Program</u>								<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Completed Health and Usage Monitoring System (HUMS) software functional integration test								1310	0	0	0
Tested UH-60L engine HUMS software and complete UH-60L environmental testing.								70	0	0	0
Begin and continue demonstration of Digital Source Collector (DSC) on UH-60L and CH-47D.								2809	2903	0	0
Adapt and test the ADIP (embedded) diagnostics for Paladin.								130	0	0	0
Continue evaluation of predictive maintenance operating capability for Brigade Combat Team ground vehicles.								2142	2213	0	0
Continue helicopter-based anticipatory data collection and data analysis.								990	1327	0	0
Continue investigation ADIP of (new embedded diagnostics technologies) and their application to Army systems.								295	300	0	0
Totals								7746	6743	0	0

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<u>B. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>																						
OPA3, N11400, Army Diagnostics Improvement Program	15447	7766	0	0	0	0	0	0	0	23213																						

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L66		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Systems Engineering	Various	Various	3982	1939	1-2Q	0		0		0	5921	0
b . Software Development/ Engineering	Various	Various	5160	1968	1-2Q	0		0		0	7128	0
c . Government Engineering	Various	Various	989	402	1-2Q	0		0		0	1391	0
Subtotal:			10131	4309		0		0		0	14440	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Contractor Technical Services	Various	Various	292	425	1-4Q	0		0		0	717	0
Subtotal:			292	425		0		0		0	717	0

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development					PROJECT L66		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Digital Source Collector Demonstration	Various	Various	1197	1652	2-4Q	0		0		0	2849	0
b . Paladin Embedded Diagnostics Test	Various	Various	130	0		0		0		0	130	0
c . Health and Usage Monitoring System Test	Various	Various	1530	0		0		0		0	1530	0
Subtotal:			2857	1652		0		0		0	4509	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Management Personnel & Support	Various	Various	630	357	1-4Q	0		0		0	987	0
Subtotal:			630	357		0		0		0	987	0
Project Total Cost:			13910	6743		0		0		0	20653	0

Schedule Profile Detail (R-4a Exhibit)							February 2003	
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604746A - Automatic Test Equipment Development				PROJECT L66
<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Digital Source Collector UH-60L and CH-47D Demonstrations		3-4Q						
ADIP - Paladin Embedded Diagnostics Test		4Q						
Stryker Brigade Combat Team (SBCT) platforms, Stryker, Family of Medium Tactical Vehicles (FMTV), Heavy Expanded Mobility Tactical Truck (HEMTT), and High Mobility Multipurpose Wheeled Vehicle (HMMWV), plan to utilize ADIP embedded diagnostics software and prototype hardware as part of a demonstration effort which will begin in FY03.								
Persue helicopter-based anticipatory data collection and data analysis to fine-tune the functionality and efficiencies of the Digital Source Collector Health and Usage Monitoring System (DSC HUMS) for the FY03 UH-60L and CH-47D demonstrations.								