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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							DATE February 2000																																														
BUDGET ACTIVITY <b>5 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604746A Automatic Test Equipment Development</b>																																																	
COST (In Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost																																												
Total Program Element (PE) Cost	9423	16063	12956	8332	8564	12433	10931	Continuing	Continuing																																												
DL59 Diagnostic/Expert Systems Development	6582	13166	3542	3554	3661	3694	3682	Continuing	Continuing																																												
DL65 Test Equipment Development	2841	2897	2987	977	976	1070	1167	Continuing	Continuing																																												
DL66 Embedded Diagnostics/Prognostics Development	0	0	6427	3801	3927	7669	6082	Continuing	Continuing																																												
<p><b>A. Mission Description and Budget Item Justification:</b> This program element provides for the development of diagnostic/prognostic hardware and software to support the increasingly complex electronics of Army weapon systems. The program focuses on commercial state-of-the-art test technologies which are common to multiple weapons platforms to minimize the cost of troubleshooting and maintenance in the field. Expert systems and artificial intelligence applications are being developed under this program element as part of the Army Diagnostics Improvement Program (ADIP) to support the overall Army strategy of improving the self-diagnostic capability of weapon systems through use of embedded sensors and built-in diagnostics. The goal of embedding diagnostics is to minimize the need for external testers and to improve the troubleshooting abilities of soldiers in the field. Emphasis is also being placed on development of paperless maintenance manuals and procedures and on battlefield electro-optical displays which will reduce the Army's investment in test program sets and in maintenance publications and procedures. This program element further provides for the development of modular, reconfigurable automatic and semi-automatic systems to satisfy calibration and repair requirements of Army general purpose test, measurement, and diagnostic equipment (TMDE). The calibration mission covers all equipment commodities, including the most sophisticated TMDE, and requires capabilities to support state-of-the-art technologies. A rapidly deployable calibration set with emphasis on digital electronics and tailored to support Army field units is being developed to alleviate the serious deployability and survivability shortfalls in the current systems.</p>																																																					
<table border="1"> <thead> <tr> <th><b>B. Program Change Summary</b></th> <th>FY 1999</th> <th>FY 2000</th> <th>FY 2001</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY 2000/2001 PB)</td> <td align="right">9962</td> <td align="right">10252</td> <td align="right">12632</td> </tr> <tr> <td>Appropriated Value</td> <td align="right">10030</td> <td align="right">16252</td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> </tr> <tr> <td>a. Congressional General Reductions</td> <td align="right">-68</td> <td></td> <td></td> </tr> <tr> <td>b. SBIR / STTR</td> <td align="right">-252</td> <td></td> <td></td> </tr> <tr> <td>c. Omnibus or Other Above Threshold Reductions</td> <td></td> <td align="right">-65</td> <td></td> </tr> <tr> <td>d. Below Threshold Reprogramming</td> <td align="right">-247</td> <td></td> <td></td> </tr> <tr> <td>e. Rescissions</td> <td align="right">-40</td> <td align="right">-124</td> <td></td> </tr> <tr> <td>Adjustments to Budget Years Since FY 2000/2001 PB</td> <td></td> <td></td> <td align="right">+324</td> </tr> <tr> <td>Current Budget Submit (FY 2001 PB)</td> <td align="right">9423</td> <td align="right">16063</td> <td align="right">12956</td> </tr> </tbody> </table>										<b>B. Program Change Summary</b>	FY 1999	FY 2000	FY 2001	Previous President's Budget (FY 2000/2001 PB)	9962	10252	12632	Appropriated Value	10030	16252		Adjustments to Appropriated Value				a. Congressional General Reductions	-68			b. SBIR / STTR	-252			c. Omnibus or Other Above Threshold Reductions		-65		d. Below Threshold Reprogramming	-247			e. Rescissions	-40	-124		Adjustments to Budget Years Since FY 2000/2001 PB			+324	Current Budget Submit (FY 2001 PB)	9423	16063	12956
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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000					
BUDGET ACTIVITY <b>5 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604746A Automatic Test Equipment Development</b>				PROJECT <b>DL59</b>				
COST (In Thousands)				FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
DL59 Diagnostic/Expert Systems Development				6582	13166	3542	3554	3661	3694	3682	Continuing	Continuing
<p><b>A. <u>Mission Description and Budget Item Justification:</u></b> This project funds development of diagnostic and prognostic systems and general purpose test and diagnostic equipment. These systems and equipment are required to overcome existing deficiencies and voids in organic test and diagnostic capabilities and to ensure the operational readiness, accuracy, and effectiveness of the Army's weapons and combat support systems. The project provides for development of diagnostic/prognostic technologies and state-of-the-art general purpose automatic test equipment to support the Army's weapon systems; improvement of general purpose automatic test equipment to meet new testing and technological requirements; market surveys of commercially available test equipment, methods, and procedures to determine applicability to Army requirements; and development and validation of test and diagnostic software. Applications of state-of-the-art technologies in expert systems and artificial intelligence, paperless maintenance and troubleshooting manuals, electro-optical displays for battlefield use, and soldier-friendly equipment will be developed to meet identified requirements.</p> <p><b>FY 1999 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• 670 Tested and evaluated anticipatory maintenance system for ground vehicles.</li> <li>• 1529 Developed interface software needed by developers to utilize Integrated Family of Test Equipment (IFTE) test capabilities.</li> <li>• 1728 Evaluated commercial diagnostics for application to Army helicopter system maintenance requirements.</li> <li>• 2455 Initiated preplanned product improvement program to expand test and diagnostic capabilities of the IFTE Electro-Optics Test Facility (EOTF).</li> <li>• 200 Developed test program set for Army VXI test system.</li> </ul> <p>Total 6582</p> <p><b>FY 2000 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 1390 Expand ground vehicle-based anticipatory maintenance system to brigade level.</li> <li>• 1519 Develop initial helicopter-based anticipatory maintenance system.</li> <li>• 1424 Develop horizontal technology insertion interface for the Bradley Fighting Vehicle System.</li> <li>• 3915 Complete preplanned product improvement program, testing, and user assessment for EOTF.</li> <li>• 2213 Develop EOTF test programs.</li> <li>• 2360 Upgrade EOTF prototype hardware.</li> <li>• 345 Small Business Innovative Research/Small Business Technology Transfer programs.</li> </ul> <p>Total 13166</p>												
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<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)</b>							DATE <b>February 2000</b>		
BUDGET ACTIVITY <b>5 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604746A Automatic Test Equipment Development</b>			PROJECT <b>DL59</b>		
<p><b>FY 2001 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 1482 Evaluate new hardware upgrades for the Integrated Family of Test Equipment.</li> <li>• 1060 Develop and evaluate new software applications for the Integrated Family of Test Equipment.</li> <li>• 1000 Commence Army developmental efforts on a Department of Defense (DoD) joint service automatic test system.</li> </ul> <p>Total 3542</p>									
<b>B. Other Program Funding Summary</b>									
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Compl</u>	Total <u>Cost</u>
OPA3, MB2201, Electronic Repair Shelter	3645	10418	6394	5083	4214	149	0	0	29903
OPA3, MB4001, Base Shop Test Facility	13047	13383	6696	1697	0	0	0	0	34823
OPA3, MB4002, Contact Test Set (SPORT)	23362	25247	37081	34570	38533	17113	17095	Cont	Cont
OPA3, MB4003, Electro-Optic Equipment	29320	12675	15210	10721	12391	11743	9296	0	101356
<p><b>C. Acquisition Strategy:</b> This project funds a number of separate but related efforts to develop and upgrade general purpose automatic test equipment and diagnostic software to support Army weapon systems. The projects are managed by the Product Manager, Automatic Test Support Systems and are focused on ensuring maximum use of commercial technologies and equipment to satisfy the Army's test and diagnostic requirements. When the necessary expertise and capability are available within the Department of Defense, 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 on the Electro-Optics Test Facility (EOTF) preplanned product improvement program are being completed under a sole source contract awarded to the prime contractor for the system. The Army will participate with the other services in development of a DoD standard automatic test system. The Army requirement is stated in the Integrated Family of Test Equipment (IFTE) operational requirements document (ORD). This developmental effort will be competitive contractual action and will be managed by a joint service NxTest Technical Working Group.</p>									
<b>D. Schedule Profile:</b>									
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
Complete EOTF User Assessment		4Q							
EOTF Type Classification-Standard			1Q						
IFTE ORD Approval		1Q							
Follow-On Automatic Test System Milestone I/II			1Q						
<p>NOTE: This is a continuing program of developmental activities to provide a means for satisfying test and diagnostic support requirements of Army weapon systems. It consists of a number of similar and related efforts many of which do not entail distinct major milestones.</p>									
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<b>ARMY RDT&amp;E COST ANALYSIS (R-3)</b>	DATE <b>February 2000</b>
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<b>BUDGET ACTIVITY</b> <b>5 - Engineering and Manufacturing Development</b>	<b>PE NUMBER AND TITLE</b> <b>0604746A Automatic Test Equipment Development</b>	<b>PROJECT</b> <b>DL59</b>
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Systems Engineering	SS/CPAF	Northrop Grumman, Rolling Meadows, IL	0	1126	May 99	4470	Jan-Jun 00	978	Jan 01	Cont	6574	
b. Software Development	SS/CPAF	Northrop Grumman, Rolling Meadows, IL	0	1302	May 99	800	Feb 00	671	Jan 01	Cont	2773	
c. Systems Engineering	Various	Various	32401	1418		2149		768		Cont	36736	
d. Software Development	Various	Various	23100	969		1941		200		Cont	26210	
e. Testing	Various	Various	4107	630		1015		200		Cont	5952	
f. Support Equipment	Various	Various	0	75		0		0		0	75	
g. Government Engineering		Various	6355	531		681		200		Cont	7767	
h. Prototype Hardware Upgrade			0	0		1240		0		0	1240	
Subtotal Product Development:			65963	6051		12296		3017			87327	

Remark: Test and evaluation costs are included as part of the product development costs.

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Contractor Technical Services	Various	Various	314	0		0		150		Cont	464	
b. Integrated Logistics Development	Various	Various	695	0		0		0		0	695	
Subtotal Support Costs:			1009					150			1159	

III. Test and Evaluation: See product development remark.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Program Management Personnel			4392	456		475		325		Cont	5648	

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<b>BUDGET ACTIVITY</b> <b>5 - Engineering and Manufacturing Development</b>	<b>PE NUMBER AND TITLE</b> <b>0604746A Automatic Test Equipment Development</b>	<b>PROJECT</b> <b>DL59</b>
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
b. Program Management Support			1992	75		50		50		Cont	2167	
C. SBIR/STTR						345					345	
Subtotal Management Services:			6384	531		870		375			8160	
<b>Project Total Cost:</b>			73356	6582		13166		3542			96646	

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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000					
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604746A Automatic Test Equipment Development				PROJECT DL65				
COST (In Thousands)				FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
DL65 Test Equipment Development				2841	2897	2987	977	976	1070	1167	Continuing	Continuing
<p><b>A. <u>Mission Description and Budget Item Justification:</u></b> This project funds development of the Army's next generation calibration set (CALSET 2000). A redesigned, rapidly deployable calibration set is required to overcome existing deficiencies and voids in organic calibration and repair capabilities. Experiences/lessons learned from Desert Shield/Desert Storm and from operations in Somalia and Bosnia highlighted the need for a more mobile and upgraded calibration set. Primary needs are for an appropriate mobility footprint that will allow airlift via C-141 or C-130 aircraft, greatly reduced electromagnetic interference/radio frequency interference signature for operations on the modern digital battlefield, and enhanced battlefield mobility. The downsized calibration set being 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 funds identification and evaluation of commercial and nondevelopmental test, measurement, and diagnostic equipment (TMDE) with potential to meet weapon system maintenance requirements and to cost effectively migrate new, higher reliability, open architecture electronics test equipment into the Army's inventory. Studies, market research, inventory analyses, bid sample testing, prototyping, and other efforts required in the early phases of the acquisition cycle will be accomplished under this project to support TMDE and calibration standards acquisitions.</p> <p><b>FY 1999 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• 1794 Initiated development of two prototypes combining the current AN/GSM-286 and AN/GSM-287 Calibration Sets into a downsized configuration.</li> <li>• 745 Acquired and evaluated several smaller, lighter, high-precision calibration standards for technology insertion into downsized equipment configuration.</li> <li>• 302 Initiated development of software to link calibration sets computers and demonstrated basic Integrated Calibration Environment (ICE) software.</li> </ul> <p>Total 2841</p> <p><b>FY 2000 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 1719 Continue development of CALSET 2000 downsized calibration set configuration.</li> <li>• 250 Perform field testing and user assessment of CALSET 2000.</li> <li>• 250 Continue development of software/database linkages, including ICE and external communications links.</li> <li>• 600 Design and develop software to automate transponder/interrogator sets using the Identification Friend or Foe Radar Test Set.</li> <li>• 78 Small Business Innovative Research/Small Business Technology Transfer programs.</li> </ul> <p>Total 2897</p>												
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<b>BUDGET ACTIVITY</b> <b>5 - Engineering and Manufacturing Development</b>	<b>PE NUMBER AND TITLE</b> <b>0604746A Automatic Test Equipment Development</b>	<b>PROJECT</b> <b>DL65</b>
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**FY 2001 Planned Program:**

- 550 Complete development and testing of CALSET 2000 downsized calibration set.
  - 1456 Implement preplanned product improvement program for CALSET 2000 concentrated in areas of virtual instrumentation and intrinsic standards.
  - 300 Prototype and perform software integration of VXI test equipment system.
  - 381 Perform market research and evaluation of commercial equipment and develop performance specifications for acquisitions.
  - 300 Perform analyses to identify impending and future shortages of critical Army test equipment capabilities.
- Total 2987

<b>B. Other Program Funding Summary</b>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Compl</u>	Total <u>Cost</u>
OPA3, N10000, Calibration Sets Equipment	9751	11358	18828	15902	16616	17685	17667	Cont	Cont
OPA3, N11000, Test Equipment Modernization	13920	14196	18738	15557	17094	18090	18070	Cont	Cont

**C. Acquisition Strategy:** This project funds development and upgrade of general purpose test equipment and calibration standards and the associated support equipment and software. The projects are managed by the Product Manager, Test Equipment Modernization/Calibration Sets Equipment and provide state-of-the-art capabilities to satisfy test and diagnostic requirements of Army weapon systems. Projects are focused on use of commercial and nondevelopmental item technologies to reduce the Army's investments in test and calibration equipment and to reduce the logistics and operations and support cost burdens. When the necessary expertise and capability are available within the Department of Defense, 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 from the commercial supplier. Candidate commercial equipment and nondevelopmental items are identified and evaluated through market research and government testing and evaluation.

**D. Schedule Profile:** 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 being developed under this project are as follows:

	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>
CALSET 2000 ORD Approval, Milestone I/II			2Q							
CALSET 2000 User Assessment				4Q						
CALSET 2000 Milestone III					1Q					
CALSET 2000 Initial Operational Capability						4Q				

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<b>ARMY RDT&amp;E COST ANALYSIS (R-3)</b>										DATE <b>February 2000</b>		
<b>BUDGET ACTIVITY</b> <b>5 - Engineering and Manufacturing Development</b>					<b>PE NUMBER AND TITLE</b> <b>0604746A Automatic Test Equipment Development</b>					<b>PROJECT</b> <b>DL65</b>		
<b>I. Product Development</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total PYs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. Systems Engineering	Various	Various	0	1076		1431		1551		Cont	Cont	
b. Software Development/Engineering	Various	Various	0	272		810		750		Cont	Cont	
c. Set Components/Support Equipment	Various	Various	0	1105		0		0		0	1105	
d. Testing	Various	Various	0	50		250		250		Cont	Cont	
e. Government Engineering		Various	0	218		278		286		Cont	Cont	
Subtotal Product Development:				2721		2769		2837		Cont	Cont	
Remark: Test and evaluation costs are included as part of the product development costs.												
<b>II. Support Costs</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total PYs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. Technical Support Services	Various	Various	0	120		50		150		Cont	Cont	
Subtotal Support Costs:				120		50		150		Cont	Cont	
III. Test and Evaluation: See product development remark.												
<b>IV. Management Services</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Pys Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. SBIR/STTR						78					78	
Subtotal Support Costs						78					78	
Project Total Cost:				2841		2897		2987		Cont	Cont	

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COST (In Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
DL66 Embedded Diagnostics/Prognostics Development	0	0	6427	3801	3927	7669	6082	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** This project funds the developmental efforts under the Army Diagnostics Improvement Program (ADIP). The ADIP has three main thrusts: Embed diagnostics on all major Army platforms, develop an anticipatory maintenance system, and improve the diagnostics on current systems. Generic procedures, software applications, and hardware devices that can be embedded in weapon systems will be developed and tested under this project. Included in this effort will be a basic, generic Health and Usage Monitoring System for Army helicopters. A similar system will be developed for ground-based fighting systems, and an inexpensive system will be developed for use in the ground-based diesel engine truck fleet.

**FY 1999 Accomplishments:** Funded as part of Project DL59 in FY 1999.

**FY 2000 Planned Program:** Funded as part of Project DL59 in FY 2000.

**FY 2001 Planned Program:**

- 2175 Test and evaluate helicopter-based anticipatory maintenance system for Kiowa Warrior.
  - 2541 Develop generic embedded diagnostics structure for ground fighting vehicles.
  - 1711 Develop initial anticipatory logistics software interfaces.
- Total 6427

<b><u>B. Other Program Funding Summary</u></b>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
OPA3, N11100, Army Diagnostics Improvement Program		5172						0	5172
OPA3, N11103, IFTE Test Program Sets			6803	6774	6760	6742	5797	0	32876
OPA3, N11104, Improved Simplified Test Equipment M1/FVS			10497	10256	0	0	0	0	20753

**C. Acquisition Strategy:** This project funds a continuing program for development of maintenance systems, methods, and procedures to improve diagnostic support capabilities for Army weapon systems and for integration of commercial diagnostics applications into Army maintenance concepts. The project is managed by the Product Manager, Automatic Test Support Systems and is focused on ensuring maximum use of commercial technologies to satisfy the Army's test and diagnostic requirements. When the necessary expertise and capability are available within the Department of Defense, services required for the individual initiatives under this project will be ordered

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PROJECT <b>DL66</b>		
<p>from the government source; otherwise, existing or new commercial contracts will be used. Equipment required for developmental projects will be obtained by contract from the commercial supplier. Candidate equipment and maintenance methods will be identified and evaluated through market research and government testing and evaluation.</p> <p><b>D. <u>Schedule Profile:</u></b> This is a continuing program of developmental activities to improve diagnostics of Army weapons and combat support systems. It consists of a number of similar and related efforts that do not entail distinct major milestones.</p>		
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<b>I. Product Development</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total PYs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. Systems Engineering	Various	Various	0	0		0		3590		Cont	3590	
b. Software Development/Engineering	Various	Various	0	0		0		1987		Cont	1987	
c. Testing	Various	Various	0	0		0		200		Cont	200	
d. Government Engineering		Various	0	0		0		200		Cont	200	
Subtotal Product Development:								5977			5977	
Remark: Test and evaluation costs are included as part of the product development costs.												
<b>II. Support Costs</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total PYs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. Contractor Technical Services	Various	Various	0	0		0		150		Cont	150	
Subtotal Support Costs:								150			150	
III. Test and Evaluation: See product development remark.												
<b>IV. Management Services</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total PYs Cost</b>	<b>FY 1999 Cost</b>	<b>FY 1999 Award Date</b>	<b>FY 2000 Cost</b>	<b>FY 2000 Award Date</b>	<b>FY 2001 Cost</b>	<b>FY 2001 Award Date</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
a. Program Management Personnel			0	0		0		250		Cont	250	
b. Program Management Support			0	0		0		50		Cont	50	
Subtotal Management Services:								300			300	
<b>Project Total Cost:</b>												
								6427			6427	