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Exhibit R-2, RDT&E Budget Item Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE, BUDGET ACTIVITY 4					R-1 ITEM NOMENCLATURE PHYSICAL SECURITY EQUIPMENT PE 0603228D8Z			
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
Total PE Cost	25.866	39.313	33.553	34.244	35.468	36.332	37.005	Continuing
HALT	0.976	0.000	0.000	0.000	0.000	0.000	0.000	Continuing
CROWS	0.350	0.280	0.400	0.200	0.000	0.000	0.000	Continuing
Delay/Denial D/D	0.114	0.900	0.900	0.900	0.900	0.900	0.900	Continuing
Product Development/Qualification	0.960	0.925	0.925	0.925	0.903	0.925	0.925	Continuing
Advanced Technology Program	0.266	0.948	0.948	0.908	0.931	0.948	0.948	Continuing
Product Testing & Support	0.634	0.975	0.930	0.925	0.975	0.975	0.975	Continuing
Smart Gate	0.000	0.775	0.775	0.775	0.775	0.775	0.775	Continuing
COTS	4.091	7.143	4.202	5.092	5.385	5.326	5.474	Continuing
Technology Base	3.500	3.384	6.256	6.000	6.467	5.250	5.486	Continuing
TASS	2.965	4.397	4.597	4.033	3.564	4.397	4.822	Continuing
WSS	2.482	3.633	2.621	2.902	3.000	2.900	2.966	Continuing
EDE	2.531	7.834	3.918	4.208	4.250	4.100	4.218	Continuing
Locks, Safes, Vaults	1.187	1.750	1.415	1.716	1.750	1.650	1.516	Continuing
MDARS-E	3.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing
HVISS	0.460	3.500	2.500	3.000	2.500	3.186	3.000	Continuing
PEWD II	0.500	1.369	1.166	1.160	2.568	3.000	2.500	Continuing
ETF	1.850	1.500	2.000	1.500	1.500	2.000	2.500	Continuing

A. Mission Description and Budget Item Justification. This program is a budget activity level 4 based on the concept/technology development activities ongoing within the program. The purpose of this program is to develop physical security equipment (PSE) systems for all DoD components, to include Force Protection. This program supports the protection of tactical and nuclear weapons systems, DoD personnel and DoD facilities. Funding for critical RDT&E security improvements within service channels fluctuated widely over the years and prompted the FY89 Congressionally directed consolidation of the Services and former Defense Special Weapons Agency (DSWA) / Defense Threat Reduction Agency (DTRA) PSE RDT&E funds into this single OSD controlled program element. The funds are used to provide PSE RDT&E for individual Service and Joint PSE requirements. The PSE program is organized so that an ongoing DoD-coordinated Joint Action Group, consisting of Army, Navy, Air Force, and Defense Threat Reduction Agency (DTRA) representatives monitors, directs and prioritizes potential and existing PSE programs. With few exceptions, each Service sponsors RDT&E efforts for technologies and programs that have multi-service application. The funds are also used to evaluate exploratory development of Physical Security Equipment. This program element supports the Army's advanced engineering development of Interior and Exterior Detection, Security Lighting, Security Barriers and Security Display Units. In a like manner, the program element also supports the Air Force's PSE RDT&E effort in the areas of Exterior Detection/Surveillance, Entry Control, Delay/Denial, Tactical Systems and Airborne Intrusion. Finally, the program supports Navy RDT&E efforts in the areas of Waterside Security, Explosive Detection, and improved technology for Locks, Safes and Vaults. Beginning with the Khobar Towers terrorist attack in 1996, this PE funded Force Protection Commercial-Off-The-Shelf (FP COTS) evaluation and testing. With the war on terrorism, FP COTS received renewed emphasis. The FP COTS testing applies to all available technologies, which are considered effective for DoD use.

## UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE, BUDGET ACTIVITY 4	R-1 ITEM NOMENCLATURE PHYSICAL SECURITY EQUIPMENT PE 0603228D8Z
<p>(U) <u>FY 2001 Accomplishments</u></p> <p>HINDER ADVERSARIES WITH LESS THAN LETHAL TECHNOLOGY (HALT) (0.976 million)</p> <ul style="list-style-type: none"> <li>• Completed a successful EMD Phase. Final Operational Test and Evaluation will begin FY 02.</li> </ul> <p>COMMON REMOTELY OPERATED WEAPON SYSTEM (CROWS) (0.350 million)</p> <ul style="list-style-type: none"> <li>• Continued FY00 efforts for proof of concept demonstration leading up to EMD award, Dec 00.</li> <li>• Inserted Air Force requirements into this Army effort. Ensured Air Force requirements are met.</li> </ul> <p>DELAY/DENIAL (D/D) DEVELOPMENT/QUALIFICATION (0.114 million)</p> <ul style="list-style-type: none"> <li>• Continued working with the Joint Non-lethal Weapons Directorate (JNLWD) and other Services to develop planning for active denial technology.</li> </ul> <p>PRODUCT DEVELOPMENT/QUALIFICATION (0.960 million)</p> <ul style="list-style-type: none"> <li>• Performed the research and planning for future Foreign Comparative Test (FCT) Programs. Conducted and completed two FCT projects. Other FCT funded programs are in various stages and being worked.</li> <li>• Did the planning for and initiated two new COTS Working Group (CWG) efforts, completed two CWG tests, and continued work on three more.</li> <li>• Planned for, put on contract, and successfully completed a feasibility study of a new program to develop a long-range, all weather, 360 degree sensor. Awarded a follow-on phase to build two prototypes.</li> <li>• Initiated the "Integration of Smart Sensors" Project.</li> <li>• Teamed with DOE to design and build a brassboard of a Personal Identification Credential System (PICS).</li> </ul> <p>ADVANCED TECHNOLOGY PROGRAM (0.266 million)</p> <ul style="list-style-type: none"> <li>• Identified technological advances at DoD, DoE, University Labs, DARPA programs, etc., with PSE utility. These led to the initiation of some of the projects identified above.</li> <li>• Responded to and researched FP Battlelab requests for information (e.g., UAVs, access control systems, remote aircraft protection systems).</li> <li>• Prepared operational systems improvement plans.</li> <li>• Developed technology roadmap.</li> <li>• Updated system architecture.</li> </ul> <p>PRODUCT TESTING AND SUPPORT (0.634 million)</p> <ul style="list-style-type: none"> <li>• Supported all testing of PSE products (COTS, NDI, Developmental) and systems testing.</li> <li>• Provided Logistical and Cost Estimating support to on-going programs.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <p>COMMON REMOTELY OPERATED WEAPON SYSTEM (CROWS) (0.280 million)</p> <ul style="list-style-type: none"> <li>• Continue with EMD Phase by providing Engineering, Logistics, and Cost Estimating support to the Army.</li> </ul>	

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE, BUDGET ACTIVITY 4	R-1 ITEM NOMENCLATURE PHYSICAL SECURITY EQUIPMENT PE 0603228D8Z
<ul style="list-style-type: none"> <li>• Receive two prototypes for testing.</li> </ul> <p>DELAY/DENIAL (D/D) DEVELOPMENT/QUALIFICATION (0.900 million)</p> <ul style="list-style-type: none"> <li>• Continue to manage D/D product developments.</li> <li>• Continue to evaluate D/D COTS products.</li> <li>• Continue to recommend new D/D technologies.</li> <li>• Develop new/better methods to delay intruders intent on entering secured internal/external areas.</li> </ul> <p>PRODUCT DEVELOPMENT/QUALIFICATION (0.925 million)</p> <ul style="list-style-type: none"> <li>• Perform follow-on work on the “Integration of Smart Sensors” Project.</li> <li>• Conduct a follow-on phase of the Personal Identification Credential System (PICS) project to build form-fit-function prototypes.</li> <li>• Continue to manage sensor, access control, and assessment product developments.</li> <li>• Continue to evaluate sensor, access control, and assessment COTS products.</li> <li>• Continue to recommend new sensor, access control, and assessment technologies.</li> </ul> <p>ADVANCED TECHNOLOGY PROGRAM (0.948 million)</p> <ul style="list-style-type: none"> <li>• Continue to identify technological advances at DoD, DoE, University Labs, DARPA programs, etc., with PSE utility.</li> <li>• Continue to respond/research FP Battlelab requests for information.</li> <li>• Continue to prepare operational systems improvement plans. Develop technology roadmap. Update system architecture.</li> </ul> <p>PRODUCT TESTING AND SUPPORT (0.975 million)</p> <ul style="list-style-type: none"> <li>• Support all testing of PSE products (COTS, NDI, Developmental) and systems testing.</li> <li>• Provide Logistical and Cost Estimating support to on-going programs.</li> </ul> <p>SMART GATE (0.775 million)</p> <ul style="list-style-type: none"> <li>• Test, develop, and integrate equipment to improve security and access to facilities.</li> <li>• Conduct a follow-on phase of the Personal Identification Credential System (PICS) project to build form-fit-function prototypes.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <p>COMMON REMOTELY OPERATED WEAPON SYSTEM (CROWS) (0.400 million)</p> <ul style="list-style-type: none"> <li>• Continue with EMD Phase by providing Engineering, Logistics, and Cost Estimating support to the Army.</li> <li>• Efforts focus on design considerations for supportability, reliability, and maintainability.</li> <li>• Correct any problems discovered during prototype testing.</li> </ul> <p>DELAY/DENIAL (D/D) DEVELOPMENT/QUALIFICATION (0.900 million)</p> <ul style="list-style-type: none"> <li>• Continue to manage D/D product developments.</li> </ul>	

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APPROPRIATION/BUDGET ACTIVITY RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE, BUDGET ACTIVITY 4		R-1 ITEM NOMENCLATURE PHYSICAL SECURITY EQUIPMENT PE 0603228D8Z	
<ul style="list-style-type: none"> <li>Continue to evaluate D/D COTS products.</li> <li>Continue to recommend new D/D technologies.</li> </ul>			
<p>PRODUCT DEVELOPMENT/QUALIFICATION (0.925 million)</p> <ul style="list-style-type: none"> <li>Continue to manage sensor, access control, and assessment product developments.</li> <li>Continue to evaluate sensor, access control, and assessment COTS products.</li> <li>Continue to recommend new sensor, access control, and assessment technologies.</li> </ul>			
<p>ADVANCED TECHNOLOGY PROGRAM (0.948 million)</p> <ul style="list-style-type: none"> <li>Continue to identify technological advances at DoD, DoE, University Labs, DARPA programs, etc., with PSE utility.</li> <li>Continue to respond/research FP Battlelab requests for information.</li> <li>Continue to prepare operational systems improvement plans. Develop technology roadmap. Update system architecture.</li> </ul>			
<p>PRODUCT TESTING AND SUPPORT (0.930 million)</p> <ul style="list-style-type: none"> <li>Continue to support all testing of PSE products (COTS, NDI, Developmental) and systems testing.</li> <li>Continue to provide Logistical and Cost Estimating support to on-going programs.</li> </ul>			
<p>SMART GATE (0.775 million)</p> <ul style="list-style-type: none"> <li>Continue to test, develop, and integrate equipment to improve security and access to facilities.</li> </ul>			
<p>B. <u>Program Change Summary</u> (\$ million)</p>			
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
Previous President's Budget	35.108	33.543	33.644
Appropriated Value	26.107	40.043	
Adjustments to Appropriated Value			
a. Congressionally Directed			
Appropriation Reduction/Increase	(9.001)	6.500	
b. Congressionally Directed			
Undistributed Reduction		(0.730)	
c. OSD Directed			
Program Reduction/Increase	(0.241)		(0.091)
Current Budget Submit/President's Budget	25.866	39.313	33.553
<p>Change Summary Explanation:</p> <p>Funding: Adjustments reflect inflation savings, below threshold reprogrammings and the Government-wide rescission</p> <p>Schedule: N/A</p>			

Exhibit R-2, RDT&E Budget Item Justification		Date: February 2002		
APPROPRIATION/BUDGET ACTIVITY RESEARCH, DEVELOPMENT, TEST & EVALUATION, DEFENSE-WIDE, BUDGET ACTIVITY 4		R-1 ITEM NOMENCLATURE PHYSICAL SECURITY EQUIPMENT PE 0603228D8Z		
Technical: N/A				
C. <u>Other Program Funding Summary</u>				
		<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
Procurement Line P-1 No(s)	USAF	2.992	5.594	5.917
Milcon Project No(s)	N/A			
Related RDT&E:	N/A			
D. <u>Execution</u>				
Not Applicable.				

Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER COMMERCIAL-OFF-THE-SHELF (COTS)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
COTS	4.091	7.143	4.202	5.092	5.385	5.326	5.474	Continuing
<p>A. <u>Mission Description and Budget Item Justification.</u> The DoD Force Protection Commercial-Off-The-Shelf (COTS) evaluation and integration project identifies and evaluates commercial systems and equipment that have potential for solving critical Force Protection problems. Equipment is tested in laboratory and operational settings to determine its suitability for a wide range of Force Protection applications. These include applications in nuclear, aircraft flight line, personnel facilities and resource protection security. Products that are identified as having military value are made available for use by incorporating them into existing or new programs. Current emphasis is on products that provide day/night all-weather detection/surveillance, sniper location, non-lethal defensive capability, barriers, large vehicle explosives detection, water-side security systems, and personal and tactical security systems.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>• Published a Maritime Force Protection Guide.</li> <li>• Conducted the third Force Protection Equipment Demonstration (FPED III).</li> <li>• Performed scheduled FY 2001 evaluations and test of selected COTS equipment/systems.</li> <li>• Published appropriate reports.</li> <li>• Updated the User's Guide of Commercially available Non-Developmental Items for Force Protection users.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>• Procure and deliver COTS Force Protection Equipment in support of DoD urgent and compelling requirements for evaluation and testing.</li> <li>• Update methodology and publish evaluation and test schedule for FY 2002.</li> <li>• Perform scheduled FY 2002 test and evaluations of selected COTS equipment/systems.</li> <li>• Procure, evaluate, test, architecturally modify, and deploy robotic platforms to support force protection and security requirements</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>• Procure and deliver COTS Force Protection Equipment in support of DoD urgent and compelling requirements for evaluation and testing.</li> <li>• Publish appropriate reports.</li> <li>• Update the User's Guide of Commercially available Non Developmental Items for Force Protection users.</li> <li>• Update methodology and publish test and evaluation schedule for FY 2002.</li> <li>• Conduct Force Protection Equipment Demonstration IV.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				COTS					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development												
Systems Engineering			0.130	0.130		0.130		0.300				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.130	0.130		0.130		0.300				
Remarks:												
Development Support												
Software Development												
Training Development			0.250	0.250		0.300		0.500				
Integrated Logistics Support			0.800	0.700		0.800		1.000				
Configuration Management			0.100	0.100		0.100		0.122				
Technical Data			0.160	0.160		0.160		0.160				
GFE												
Subtotal Support			1.310	1.210		1.360		1.782				
Remarks:												



Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER TECHNOLOGY BASE			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
TECHNOLOGY BASE	3.500	3.384	6.256	6.000	6.467	5.250	5.486	Continuing
<p>A. <u>Mission Description and Budget Item Justification.</u> The Defense Threat Reduction Agency (DTRA) is responsible for coordinating technology base efforts that feed into the advanced development projects within the Physical Security Equipment (PSE) Program. DTRA performs the exploratory development on technologies that are nominated and prioritized by the Services and the Physical Security Equipment Action Group (PSEAG). This annual process determines which technologies have potential to meet Service interests in fulfilling eventual Joint Service and Service-unique requirements.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>Completed and demonstrated prototype hardware for the miniaturized radio frequency tags, acoustic detection and classification sensor, nuclear quadrupole resonance sensor, photo-neutron probe for the detection of explosives, tactical security sensor internetting system, an advanced user interface system, and the weather vulnerability assessment tool.</li> <li>Continued the detection on the move (exterior) project, security vehicle with acoustic guidance, and the fluorescence detection of explosive projects.</li> <li>Continued researching the Video Forward Looking Infrared (FLIR) Imager, the Remote Detection &amp; Tracking Sensor, the Target Classifying Sensor, and the Blue Rose fiber optic cable sensor projects.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>Initiate new projects for the Force Protection Selector; the Wireless Security Sensor Networks; the Non-Lethal Swimmer Interdiction Device; the Shoreline Intruder Detection System; the Personal Identification Credential System; and the Low Probability of Interception/Low Probability of Detection (LPI/LPD) Communications.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>Initiate new projects for the Extended Line-of-Sight (ELOS) Communications project; the Multi-Beam Antennae for Active Microwave and Passive Infrared Sensors; the Long Range Intelligent Infrared Fence; Radio-Frequency Emissions Locator; Mission Payload Prototype; Use of Deception for Base Defense; and the Long Range, Single-Ended, Laser Break Beam Line Sensor</li> <li>Continue the Video FLIR Imager project; the Wireless Network Security Sensors project; the Force Protection Sensor Selector project; the Non-Lethal Swimmer Interdiction Device project; the Shoreline Intruder Detection System project; the Personal Identification Credential System; and the Low Probability of Interception/Low Probability of Detection (LPI/LPD) Communications project.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				TECH BASE					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.800	0.800		1.700		1.700				
Ancillary Hardware Development												
Systems Engineering			0.362	0.432		0.662		0.606				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			1.162	1.232		2.362		2.306				
Remarks:												
Development Support			0.060	0.060		0.060		0.060				
Software Development			0.352	0.412		0.760		0.760				
Training Development			0.015	0.015		0.015		0.015				
Integrated Logistics Support												
Configuration Management			0.090	0.170		0.270		0.270				
Technical Data			0.052	0.100		0.100		0.100				
GFE			0.049	0.049		0.049		0.049				
Subtotal Support			0.618	0.806		1.254		1.254				
Remarks:												

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)							Date: February 2002					
DEFENSE-WIDE BUDGET ACTIVITY 4				Program Element PE 0603228D8Z			TECH BASE					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DT			0.746	0.641		1.400		1.200				
IOT&E												
Subtotal T&E			0.746	0.641		1.400		1.200				
Remarks:												
Contractor Engineering Support			0.674	0.325		0.860		0.860				
Government Engineering Support												
Program Management Support			0.300	0.380		0.380		0.380				
Program Management Personnel												
Travel												
Labor (Research Personnel)												
Miscellaneous												
Subtotal Management			0.974	0.705		1.240		1.240				
Remarks:												
Total Cost			3.500	3.384		6.256		6.000				
Remarks:												

Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER TACTICAL AUTOMATED SECURITY SYSTEM (TASS)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
TASS	2.965	4.397	4.597	4.033	3.564	4.397	4.822	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u>. The Tactical Automated Security System (TASS), a DoD funded R&amp;D program and an Air Force funded procurement, is an ongoing effort to develop an integrated, portable, relocatable security system to provide Force Protection capability for personnel, dispersed assets, fixed base facilities and Air Base Ground Defense applications. The system includes remote sensing, alarm monitoring through fiber optic and wireless data communications, remote assessment through the use of day/night all weather Thermal Imaging and CCTV systems. The system employs a PC-based annunciator and relies on an internal power and recharging system.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>• Made significant progress towards the completion of the upgrade to the data communications system to meet Air Force requirements, to include reduced component size, added encryption capability, and GPS.</li> <li>• Conducted testing of COTS technology to add capabilities to the TASS suite of products.</li> <li>• Awarded and performed technology enhancement ECPs to improve/provide new capabilities. Included was: (1) annunciator software upgrade IV that leverages current market technology to increase capability while decreasing procurement costs; (2) an upgrade of power system components including battery modules and solar panels; (3) develop new sensors to increase performance while decreasing NAR/FAR (Nuisance Alarm Rates/False Alarm Rates).</li> <li>• Conducted testing of COTS products to add capabilities to the TASS suite of products. This included testing short-range thermal imagers and new tactical sensors.</li> <li>• Improved training by providing the field with CDs that include video clips and voiceovers.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>• Complete and test the upgrade to the data communications system to meet Air Force requirements, to include reduced component size, added encryption capability, and GPS.</li> <li>• Conduct testing of COTS technology to add capabilities to the TASS suite of products.</li> <li>• Award and perform technology enhancement ECPs to improve/provide new capabilities. Included will be: (1) developing an upgraded assessment network that greatly increases the situational awareness of the operator; (2) developing and incorporating sensor systems; (3) upgrading the annunciator software system to increase user capabilities for nuclear safeguarding applications; (4) upgrading the system to provide for a tactical entry control capability; and (5) increasing data communications capability.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>• Conduct testing of COTS products to add capabilities to the TASS suite of products.</li> <li>• Award and perform technology enhancement ECPs to improve/provide new capabilities.</li> <li>• Continue the miniaturization efforts to produce a system that is small, lightweight, and durable.</li> </ul>								

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<ul style="list-style-type: none"><li>• Continue Annunciator efforts to provide a man-portable annunciation capability.</li><li>• Continue data communications efforts to increase capability and harden/secure data communications.</li><li>• Integrate entry control and annunciation capabilities.</li><li>• Continue efforts that increase the situational awareness for the operators.</li></ul>				
B. <u>Other Program Funding Summary</u>				
		<u>2001</u>	<u>2002</u>	<u>2003</u>
	Procurement	23.156	20.000	19.000

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				TASS					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.450	0.845		0.775		0.450				
Ancillary Hardware Development												
Systems Engineering			0.160	0.782		0.725		0.725				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.610	1.627		1.500		1.175				
Remarks:												
Development Support			0.064	0.162		0.162		0.162				
Software Development			0.096	0.369		0.700		0.869				
Training Development			0.019	0.040		0.040		0.040				
Integrated Logistics Support			0.075	0.130		0.530		0.130				
Configuration Management			0.080	0.100		0.100		0.100				
Technical Data			0.062	0.102		0.102		0.102				
GFE			0.020	0.140		0.240		0.140				
Subtotal Support			0.416	1.043		1.874		1.543				
Remarks:												



Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER WATERSIDE SECURITY SYSTEM (WSS)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
WSS	2.482	3.633	2.621	2.902	3.000	2.900	2.966	Continuing
<p>A. <u>Mission Description and Budget Item Justification.</u> The Space and Naval Warfare Center (SPAWARCEN), San Diego is the Center of Excellence for waterfront security. Responsibilities include fixed and transportable waterfront security systems, swimmer detection sonars, and commercial-off-the-shelf (COTS) equipment test and evaluation, which focuses on waterfront force protection. The program is under the sponsorship and direction of CNO (N34).</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>• Managed the Waterside Security System and Shipboard Physical Security programs.</li> <li>• Evaluated and tested COTS technologies for the waterfront environment.</li> <li>• Conducted Joint US/UK Test of sonar technology at Naval Submarine Base (SUBASE), Bangor, ME.</li> <li>• Initiated action for the development of new generation WQX-2 Sonar jointly with the UK.</li> <li>• Supported installation WSS systems at operational sites.</li> <li>• Continued work on the Diver Imaging Technology.</li> <li>• Completed a Non-lethal swimmer neutralization report.</li> <li>• Brought on-line the Force Protection/Anti-Terrorism (FP/AT) Knowledge Management Portal (<a href="https://dodpse.spawar.navy.mil">https://dodpse.spawar.navy.mil</a>).</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>• Evaluate, test, and integrate emerging technologies into the waterfront security program.</li> <li>• Test and evaluate COTS sonar technology for swimmer detection.</li> <li>• Expand anti-swimmer coverage at SUBASE Bangor.</li> <li>• Evaluate and integrate swimmer assessment capabilities into the WSS.</li> <li>• Investigate robotics for detection and assessment of hostile swimmers.</li> <li>• Begin work on the Joint US/UK sonar upgrade project.</li> <li>• Develop an automated means to quantitatively assess risk to Waterside/Landside personnel and resources.</li> <li>• Coordinate Knowledge Management efforts with other federal agencies and integrate collaboration tools.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>• Continue T&amp;E of COTS technology at the 5000 Mike Pier integration facility.</li> <li>• Support WSS operational sites.</li> <li>• Complete work on the Joint US/UK Sonar RDT&amp;E Project.</li> <li>• Deploy new sonar technology at a US and UK operational site.</li> <li>• Integrate teleconferencing into the KM Portal.</li> <li>• Evaluate new waterside barrier technologies.</li> </ul>								

- Evaluate communications technologies for shipboard and waterfront applications.

B. Other Program Funding Summary  
Not Applicable

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Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				WSS					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.500	0.400		0.400		0.420				
Ancillary Hardware Development												
Systems Engineering			0.162	0.140		0.150		0.160				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.662	0.540		0.550		0.580				
Remarks:												
Development Support			0.043	0.034		0.034		0.064				
Software Development			0.099	0.893		0.096		0.096				
Training Development			0.015	0.019		0.019		0.019				
Integrated Logistics Support			0.052	0.051		0.051		0.076				
Configuration Management			0.090	0.070		0.080		0.080				
Technical Data			0.052	0.052		0.062		0.062				
GFE			0.049	0.020		0.020		0.020				
Subtotal Support			0.400	1.139		0.362		0.417				
Remarks:												



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Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER EXPLOSIVE DETECTION EQUIPMENT (EDE)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
EDE	2.531	7.834	3.918	4.208	4.250	4.100	4.218	Continuing
<p>A. <u>Mission Description and Budget Item Justification.</u> While the EDE Program occasionally addresses requirements to develop explosive detection equipment, its primary focus is to evaluate Commercial Off-the-Shelf (COTS) explosive detection products. Assessments of systems at Department of Defense (DoD) locations are a critical component of the effort, as is ensuring the results of such demonstrations or testing are readily available to the military services' decision-makers. Attempts to leverage previous independent testing and evaluation and supplementing other government investments in development of explosives screening systems are made. A limited amount of funding is earmarked for low-risk emerging technologies that may assist in increasing the likelihood of detecting improvised explosive devices, large vehicle bombs, etc.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>Engaged the Federal Aviation Administration to develop a user's guide for the selection of EDE for use in mailroom screening.</li> <li>Performed comparative laboratory performance/capabilities evaluations of various COTS handheld explosive trace detection equipment/systems.</li> <li>Provided low-cost vehicle inspection kits to a number of DoD organizations for deployment and evaluation.</li> <li>Developed logistic support plans, logistic support summaries, safety plans and operational manuals (Quick Reference Cards) for selected COTS products.</li> <li>Updated and maintain the EDE web site.</li> <li>Continued/transitioned the development of a photoneutron-based probe that enhances the capabilities of high-energy radiographic inspection for explosives.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>Perform comparative evaluations of various COTS equipment/systems. Specifically, examine desktop EDE as well as portals that examine explosives, aircraft cargo screening equipment, as well as new/improved hand-held EDE.</li> <li>Conduct extensive evaluations of EDE equipment that uses "backscatter" x-ray imaging technology.</li> <li>Continue to develop logistic support plans, logistic support summaries, safety plans, Quick Reference Cards of COTS products.</li> <li>Update and maintain the EDE web site.</li> <li>Assess the threat to DoD from IEDs.</li> <li>Develop appropriate tactics, techniques, and procedures to optimize the capabilities of existing and developmental EDE.</li> <li>Develop a Remote/Standoff Explosive Detection System (R/SEDS).</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>Conduct market surveys and investigations for COTS and developmental EDE to be further evaluated.</li> <li>Conduct laboratory and operational testing of several EDE technologies.</li> <li>Integrate COTS and developmental systems for the detection and identification of IEDs.</li> </ul>								

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- Examine the most suitable combinations of EDE technologies, such as imaging and trace, to determine the most effective combination for the detection of explosives.
- Update the threat to DoD from IEDs.
- Continue to develop logistic support plans, summaries, operational manuals for selected COTS products.
- Update and maintain the EDE web site.
- Develop spiral upgrades to the Remote/Standoff Explosive Detection System (R/SEDS).

B. Other Program Funding Summary  
Not Applicable.

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Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				EDE					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.500	4.650		1.300		1.400				
Ancillary Hardware Development												
Systems Engineering			0.184	0.420		0.600		0.160				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.684	5.070		1.900		1.560				
Remarks:												
Development Support			0.043	0.034		0.049		0.064				
Software Development			0.099	0.093		0.350		0.500				
Training Development			0.018	0.066		0.078		0.090				
Integrated Logistics Support			0.052	0.051		0.064		0.076				
Configuration Management			0.090	0.075		0.090		0.200				
Technical Data			0.069	0.074		0.102		0.052				
GFE			0.049	0.045		0.073		0.128				
Subtotal Support			0.420	0.438		0.806		1.110				
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)							Date: February 2002					
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				EDE					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DT			0.206	0.716		0.416		0.636				
IOT&E			0.240	0.783		0.321		0.247				
Subtotal T&E			0.446	1.499		0.737		0.883				
Remarks:												
Contractor Engineering Support			0.681	0.736		0.386		0.576				
Government Engineering Support												
Program Management Support			0.300	0.091		0.089		0.079				
Program Management Personnel												
Travel												
Labor (Research Personnel)												
Miscellaneous												
Subtotal Management			0.981	0.827		0.475		0.655				
Remarks:												
Total Cost			2.531	7.834		3.918		4.208				
Remarks:												

Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER DoD LOCKS, SAFES, VAULTS			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
DoD LOCKS, SAFES, VAULTS	1.187	1.750	1.415	1.716	1.750	1.650	1.516	Continuing
<p>A. <u>Mission Description and Budget Item Justification.</u> The DoD Lock, Safes and Vaults Program identifies, tests and evaluates commercial hardware for suitability and compliance with security requirements, and tools and technology that may reduce the delay time afforded by present day security systems mandated by current regulations. The program also provides users with up-to-date security technology information by means of CD-ROM distribution. Other valuable services provided include testing security seals, analysis of alternative high security locking systems for Arms, Ammunition &amp; Explosive (AA&amp;E) applications, and evaluation of entry systems for “locked out” high security magazine doors.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>• Received OSD approval for Internal Locking Device (ILD) as a High Security Locking System.</li> <li>• Completed lock cylinder &amp; key replacement and system evaluation of 10 ILDs in Germany.</li> <li>• Conducted 5<sup>th</sup> Security Seal Symposium.</li> <li>• Established Security Seals Working Group and identified alternative to lead seals.</li> <li>• Completed update and developed web-patch capability for future updates of National Security Information (NSI) Destruction Guidance CD-ROM.</li> <li>• Published three Lock Program Newsletters.</li> <li>• Completed update and published tech Data sheet (TDS-2078-SHR) on Pre-Engineered Explosive Magazines.</li> <li>• Received direction from OASD to evaluate physical security and forced entry protection characteristics of specific weapon storage structures, doors, and construction standards.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>• Update and publish guide specifications for security equipment (as needed).</li> <li>• Develop and publish four Lock Program Newsletters.</li> <li>• Approve lead seal alternatives.</li> <li>• Conduct evaluation and specify seals for computer systems and combination locks.</li> <li>• Evaluate structure construction standards and door systems for the protection of AA&amp;E.</li> <li>• Incorporate design recommendations/enhancements into and finalize ILD User Data Package.</li> <li>• Test commercially available attack tools.</li> <li>• Monitor, evaluate, and track problems and vulnerabilities associated with security equipment.</li> </ul>								

(U) FY 2003 Plans

- Update and publish guide specifications for security equipment (as needed).
- Develop and publish specification for label seals.
- Develop and implement testing/qualification procedures for label seals.
- Publish four Lock Program Newsletters.
- Test and evaluate forced entry resistance of selected weapon storage and magazine door systems.
- Support DoD locking system/security hardware procurement and troubleshooting requirements.
- Monitor, evaluate, and track problems and vulnerabilities associated with approved security equipment.
- Develop and publish cost effective methods to upgrade attack resistance of AA&E magazine door systems.
- Test and evaluate commercially available forced entry attack tools.

B. Other Program Funding Summary

Not Applicable.

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				LOCKS, SAFES, VAULTS					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.250	0.350		0.230		0.350				
Ancillary Hardware Development												
Systems Engineering			0.100	0.100		0.100		0.100				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.350	0.450		0.330		0.450				
Remarks:												
Development Support			0.033	0.033		0.033		0.033				
Software Development			0.025	0.025		0.017		0.025				
Training Development			0.015	0.015		0.015		0.015				
Integrated Logistics Support			0.033	0.033		0.028		0.028				
Configuration Management			0.042	0.051		0.033		0.037				
Technical Data			0.052	0.052		0.044		0.037				
GFE			0.018	0.018		0.018		0.018				
Subtotal Support			0.218	0.227		0.188		0.193				
Remarks:												

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Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 5	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER MOBILE DETECTION ASSESSMENT RESPONSE SYSTEM - EXTERIOR (MDARS-E)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
MDARS-E	3.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u>. The Mobile Detection Assessment Response System – Exterior (MDARS-E) will provide commanders at Army, Air Force, Navy, and Defense Logistics Agency (DLA) facilities with the capability to conduct semi-autonomous, random patrols and surveillance activities, including barrier assessment and theft detection functions. MDARS-E can be used in a variety of applications: general storage yards; depots; Arms, Ammunition and Explosives (AA&amp;E) storage areas; air fields; railyards; and port facilities. The MDARS-E will autonomously conduct surveillance activities checking for intruders, conducting lock interrogations, and assessing the status of facility barriers, such as doors of AA&amp;E storage bunkers. Uses include the detection of unauthorized personnel, verification of barrier and product status, and the remote investigation of an alarm source. The MDARS-E program will transition to the Joint Robotics Program’s 6.4 line in FY 2002.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>Completed Program Definition and Risk Reduction (PDRR) phase.</li> <li>Conducted Milestone I/II In Process Review (IPR).</li> <li>Prepared contract requirements package for the System Development and Demonstration (SDD) phase.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>No funding from this Program Element.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>No funding from this Program Element.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				MDARS-E					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			1.800									
Ancillary Hardware Development												
Systems Engineering			0.400									
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			2.200									
Remarks:												
Development Support												
Software Development			0.200									
Training Development			0.200									
Integrated Logistics Support			0.100									
Configuration Management			0.100									
Technical Data												
GFE												
Subtotal Support			0.600									
Remarks:												



Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER HIGH VALUE ITEM SECURITY SYSTEM (HVISS)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
HVISS	0.460	3.500	2.500	3.000	2.500	3.186	3.000	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u>. The High Value Item Security System (HVISS) Phase II, a DoD funded R&amp;D program and an Army funded procurement, will provide Commanders a system to locate and recover high value items in both garrison and field environments. The HVISS will increase readiness and sustainability by ensuring the unit maintains on-hand equipment accountability of highly pilferable, sensitive items such as Night Vision Devices (NVDs) and global positioning devices, etc. The HVISS Phase II will be applicable for other high value, high technology items now fielded or soon to be fielded.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>Continued with Concept Exploration.</li> <li>Conducted Proof of Concept Demonstration.</li> <li>Continued to Coordinate Radio Frequency Identification (RFID) Requirements.</li> <li>Revised HVISS Project Plan.</li> <li>Continued to Coordinate Requirement with RF Tag Vendors.</li> <li>Presented Extended Range Prototype Development Project to the Technical Support Working Group (TSWG).</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>Continue development of TSWG prototype RFID system.</li> <li>Award Prototype Contract with TSWG.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>Conduct Preliminary Design Review.</li> <li>Conduct Critical Design Review.</li> <li>Deliver Prototype and conduct End User Appraisal.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

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Exhibit R-3 Cost Analysis (page 1)								Date:		February 2002			
DEFENSE-WIDE			Program Element					HVISS					
BUDGET ACTIVITY			PE 0603228D8Z										
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Primary Hardware Development			0.100	0.650		0.450		0.550					
Ancillary Hardware Development				0.300		0.400		0.400					
Systems Engineering			0.090	0.720		0.220		0.220					
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development			0.190	1.670		1.070		1.170					
Remarks:													
Development Support			0.020	0.034		0.034		0.034					
Software Development				0.093		0.093		0.093					
Training Development				0.066		0.066		0.066					
Integrated Logistics Support				0.052		0.052		0.052					
Configuration Management			0.030	0.075		0.075		0.075					
Technical Data			0.030	0.074		0.074		0.074					
GFE				0.045		0.045		0.045					
Subtotal Support			0.080	0.439		0.439		0.439					
Remarks:													

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Exhibit R-3 Cost Analysis (page 2)								Date:	February 2002				
DEFENSE-WIDE				Program Element				HVISS					
BUDGET ACTIVITY				PE 0603228D8Z									
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
DT				0.600		0.300		0.500					
IOT&E													
Subtotal T&E				0.600		0.300		0.500					
Remarks:													
Contractor Engineering Support			0.100	0.700		0.600		0.800					
Government Engineering Support													
Program Management Support			0.090	0.091		0.091		0.091					
Program Management Personnel													
Travel													
Labor (Research Personnel)													
Miscellaneous													
Subtotal Management			0.190	0.791		0.691		0.891					
Remarks:													
Total Cost			0.460	3.500		2.500		3.000					
Remarks:													

Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER PLATOON EARLY WARNING DEVICE II (PEWD II)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
PEWD II	0.500	1.369	1.166	1.160	2.568	3.000	2.500	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u>. The Platoon Early Warning Device II (PEWD II), an Army funded procurement and DoD funded R&amp;D program, will provide a replacement Tactical Sensor System for the Platoon Early Warning System (PEWS). The system requires the capability for early detection of vehicles and personnel to enhance soldier survivability during defensive and ambush type operations. By providing early detection of an enemy threat, this capability will enhance time available to determine the appropriate tactical response. The envisioned system would be organic to appropriate tactical units and available under Common Table and Allowances (CTA) to other forces to meet contingency missions. Emphasis should be placed on ease of deployment, operation, and recovery.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>• Awarded Hand Held Monitor development contract to L3Comm.</li> <li>• Continued US Army/US Air Force Joint Development Effort.</li> <li>• Continued to re-staff the Operational Requirements Document.</li> <li>• Obtained procurement funding for 138 units for the Interim Brigade Combat Teams (IBCT).</li> <li>• Conducted Critical Design Review.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>• Initiate PEWD II Hand Held Monitor (HHM) Modification Effort.</li> <li>• Initiate HHM Procurement for IBCT.</li> <li>• Initiate PEWD II Sensor Procurement for IBCT.</li> <li>• Prepare Statement of Work for HHM Modification.</li> <li>• Conduct System Design Review for Modified HHM.</li> <li>• Field 69 Candidate HHM's to IBCT.</li> <li>• Deliver PEWD II Sensors.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>• Refine acquisition strategy.</li> <li>• Continue to field HHM to IBCT.</li> <li>• Field PEWD II Sensor packages to IBCT.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

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Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				PEWD II					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.100	0.250		0.150		0.150				
Ancillary Hardware Development												
Systems Engineering			0.100	0.124		0.124		0.124				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.200	0.374		0.274		0.274				
Remarks:												
Development Support			0.030	0.033		0.033		0.033				
Software Development				0.065		0.065		0.065				
Training Development				0.015		0.015		0.015				
Integrated Logistics Support				0.033		0.030		0.030				
Configuration Management			0.040	0.051		0.051		0.051				
Technical Data			0.040	0.052		0.052		0.052				
GFE				0.018		0.018		0.018				
Subtotal Support			0.110	0.267		0.264		0.264				
Remarks:												



Exhibit R-2a, RDT&E Project Justification							Date: February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, DEFENSE WIDE, BUDGET ACTIVITY 4	PROGRAM ELEMENT PE 0603228D8Z				PROJECT/THRUST NAME AND NUMBER ELECTRONIC TRIP FLARE (ETF)			
Cost (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete
ETF	1.850	1.500	2.000	1.500	1.500	2.000	2.500	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u>. The Electronic Trip Flare (ETF), a DoD funded R&amp;D program and an Army funded procurement, is an effort to develop a lightweight, man-portable, easily emplaced and recoverable, motion-activated device designed to provide early warning and illumination to individuals and small units. This capability will provide commanders with an increase in time to effectively determine the most appropriate tactical response. The ETF will be used as an independent/individually employed early warning device or as a part of a security concept layer.</p> <p>(U) <u>FY 2001 Accomplishments</u></p> <ul style="list-style-type: none"> <li>ETF prototype development contract awarded to Ocean Atmospheric Science, Inc.</li> <li>Conducted Preliminary Design Review in December 2000.</li> <li>Conducted Critical Design Review in June 2001.</li> <li>Conducted Acceptance Test in July 2001.</li> </ul> <p>(U) <u>FY 2002 Plans</u></p> <ul style="list-style-type: none"> <li>Release Final Report and Deliver Five Systems.</li> <li>Conduct Early User Appraisal to determine operational suitability and modification requirements.</li> <li>Prepare draft Request for Proposal (RFP) package.</li> </ul> <p>(U) <u>FY 2003 Plans</u></p> <ul style="list-style-type: none"> <li>Award System Development and Demonstration (SDD) contract.</li> </ul> <p>B. <u>Other Program Funding Summary</u> Not Applicable.</p>								

Exhibit R-3 Cost Analysis (page 1)							Date:	February 2002				
DEFENSE-WIDE BUDGET ACTIVITY			Program Element PE 0603228D8Z				ETF					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total 2001 Cost	2002 Cost	2002 Award Date	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development			0.400	0.300		0.300		0.300				
Ancillary Hardware Development												
Systems Engineering			0.100	0.100		0.100		0.100				
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.500	0.400		0.400		0.400				
Remarks:												
Development Support			0.033	0.033		0.033		0.033				
Software Development			0.100	0.100		0.200		0.100				
Training Development			0.015	0.015		0.015		0.015				
Integrated Logistics Support			0.233	0.133		0.433		0.133				
Configuration Management			0.042	0.092		0.092		0.092				
Technical Data			0.052	0.052		0.052		0.052				
GFE			0.018	0.018		0.018		0.018				
Subtotal Support			0.493	0.443		0.843		0.443				
Remarks:												

