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PE NUMBER: 0604287F

PE TITLE: Physical Security Equipment

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604287F Physical Security Equipment

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	7.675	9.659	11.153	8.122	2.270	3.254	3.329	3.387	Continuing	TBD
5120 Physical Security Equipment - SD/ED	7.675	9.659	11.153	8.122	2.270	3.254	3.329	3.387	Continuing	TBD

(U) **A. Mission Description and Budget Item Justification**

This program is a budget activity level 5 based on the engineering and manufacturing development activities ongoing within the program. The purpose of this program is to design physical security equipment (PSE) systems for all DoD components, to support its physical security and Force Protection missions. This program supports the protection of tactical, fixed and nuclear weapons systems, DoD personnel and DoD facilities. 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 USAF-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. OSD program oversight, to be established by a Memorandum of Understanding, is to be provided by the Office of the Under Secretary of Defense, Acquisition, Technology and Logistics (AT&L), the Assistant Secretary of Defense for Networks and Information Integration (NII), and the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological (ATSD(NCB)) programs. With few exceptions, each Service sponsors RDT&E efforts for technologies and programs that have multi-service application. This program element supports the Army's advanced engineering development of robotic and detection systems. The program element also supports all four Services' identification and redesign of developmental, non-developmental, and commercial-off-the-shelf equipment to meet physical security requirements. Activities within this program will seek to reduce risk associated with integrating, fielding, and supporting the equipment once it becomes a part of the overall security system.

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	7.899	9.659	11.153	8.122
(U) Current PBR/President's Budget	7.675	9.659	11.153	8.122
(U) Total Adjustments	-0.224	0.000		
(U) Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer	-0.224			
(U) <u>Significant Program Changes:</u>				

Exhibit R-2a, RDT&E Project Justification

DATE

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BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)					0604287F Physical Security Equipment			5120 Physical Security Equipment - SD/ED		
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5120 Physical Security Equipment - SD/ED	7.675	9.659	11.153	8.122	2.270	3.254	3.329	3.387	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **A. Mission Description and Budget Item Justification**

This program is a budget activity level 5 based on the engineering and manufacturing development activities ongoing within the program. The purpose of this program is to design physical security equipment (PSE) systems for all DoD components, to support its physical security and Force Protection missions. This program supports the protection of tactical, fixed and nuclear weapons systems, DoD personnel and DoD facilities. 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 USAF-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. OSD program oversight, to be established by a Memorandum of Understanding, is to be provided by the Office of the Under Secretary of Defense, Acquisition, Technology and Logistics (AT&L), the Assistant Secretary of Defense for Networks and Information Integration (NII), and the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological (ATSD(NCB)) programs. With few exceptions, each Service sponsors RDT&E efforts for technologies and programs that have multi-service application. This program element supports the Army's advanced engineering development of robotic and detection systems. The program element also supports all four Services' identification and redesign of developmental, non-developmental, and commercial-off-the-shelf equipment to meet physical security requirements. Activities within this program will seek to reduce risk associated with integrating, fielding, and supporting the equipment once it becomes a part of the overall security system.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) FORCE PROTECTION/TACTICAL SECURITY EQUIPMENT	0.775			
- Began SDD of the BAIS.				
- Conducted Milestone C Full Rate Production Decision.				
- Continued to prepare operational systems improvement plans; develop technology roadmap, update system architecture.				
- Continued to test, develop, and integrate equipment to improve security and access to facilities.				
(U) FORCE PROTECTION/TACTICAL SECURITY EQUIPMENT		3.024		
- Conduct Milestone C Full Rate Production decision for the BAIS.				
- Begin Full Rate Production of BAIS.				
- Conduct Production Verification Tests of BAIS.				
- Continue to manage, develop, evaluate, and test Delay/Denial products.				
- Continue to manage sensor and assessment product developments and tests.				
- Continue to prepare operational systems improvement plans; develop technology roadmap, update system architecture.				
- Continue to test, develop, and integrate equipment to improve security and access to facilities.				
(U) ROBOTIC SECURITY SYSTEMS INTEGRATION	6.900			
- Began SDD of Mobile Detection and Response System - Exterior (MDARS-E) Patrol Units.				

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Exhibit R-2a, RDT&E Project Justification

DATE

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BUDGET ACTIVITY		PE NUMBER AND TITLE		PROJECT NUMBER AND TITLE						
05 System Development and Demonstration (SDD)		0604287F Physical Security Equipment		5120 Physical Security Equipment - SD/ED						
	- Developed Encryption capability and Military Band communications.									
	- Completed Subsystem (Obstacle Avoidance and Intrusion Detection) Integration of MDARS-E.									
	- Began Production Qualification Tests of MDARS-E - completed Test 1a.									
(U)	ROBOTIC SECURITY SYSTEMS INTEGRATION			4.435						
	- Conduct Production Qualification Tests of MDARS-E Test 1b.									
	- Complete Early User Assessments of MDARS-E.									
	- Conduct Factory System Production Qualification Tests of MDARS-E.									
	- Conduct Environmental and EMI Tests of MDARS-E.									
(U)	ROBOTIC SECURITY SYSTEMS INTEGRATION				11.153					
	- Conduct operational test of MDARS-E.									
	- Provide Engineering Support for fielding the MDARS-E.									
(U)	ROBOTIC SECURITY SYSTEMS INTEGRATION				8.122					
	- Begin Full Rate Production of MDARS-E.									
	- Preplanned Product Improvement (P3I) to obtain greater sensing distance for MDARS-E while on the move.									
	- Increase the speed and response feed of MDARS-E to support the REDCAR project.									
(U)	WATERSIDE SECURITY SYSTEM			1.300						
	-Continue preplanned product improvement (P3I) efforts for COTS sonar technologies in support of Subsurface Threat Detection									
	-Continue test and evaluation of swimmer detection equipment									
	-Continue to monitor and investigate availability of non-lethal technologies in the Swimmer Delay, Denial, and Response area.									
	-Conduct in-water tests of Sea Fence and composite material LW barrier developed by the Naval Facilities Engineering Systems Center.									
(U)	EXPLOSIVE DETECTION EQUIPMENT			0.900						
	- Redesign and develop the Laser IMS prototype into a final production model.									
	- Continue to manage, develop, evaluate, and test explosive detection products									
(U)	Total Cost		7.675	9.659	11.153 8.122					
(U)	C. Other Program Funding Summary (\$ in Millions)									
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
(U)	Not Applicable									
(U)	D. Acquisition Strategy									
	Not Applicable									

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Exhibit R-3, RDT&E Project Cost Analysis												DATE February 2005		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)						PE NUMBER AND TITLE 0604287F Physical Security Equipment					PROJECT NUMBER AND TITLE 5120 Physical Security Equipment - SD/ED			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2004 Cost	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development														
PM-FPS (US Army)	MIPR			7.385	Dec-03	7.069	Oct-04	10.703	Oct-05	7.802	Oct-06	Continuing	TBD	TBD
NAVEODTECHDIV (US Navy)	MIPR					0.900	Oct-04						0.900	TBD
Subtotal Product Development			0.000	7.385		7.969		10.703		7.802		Continuing	TBD	TBD
Remarks:														
(U) Support														
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Test & Evaluation														
SPAWAR, San Diego (US Navy)	MIPR					1.300	Oct-04						1.300	TBD
Subtotal Test & Evaluation			0.000	0.000		1.300		0.000		0.000		0.000	1.300	TBD
Remarks:														
(U) Management														
Program Office Support				0.290		0.390		0.450		0.320		Continuing	TBD	TBD
Subtotal Management			0.000	0.290		0.390		0.450		0.320		Continuing	TBD	TBD
Remarks:														
(U) PM-PSE (US Army)														
(U) Total Cost			0.000	7.675		9.659		11.153		8.122		Continuing	TBD	TBD
Remarks:														

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Exhibit R-4, RDT&E Schedule Profile

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604287F Physical Security
Equipment

PROJECT NUMBER AND TITLE

5120 Physical Security Equipment -
SD/ED

Exhibit R-4, Schedule Profile																								Date: February 2005												
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)												PE NUMBER AND TITLE PE0604287F Physical Security Equipment												PROJECT NUMBER AND NAME 5120 Physical Security Equipment - SD/ED												
Fiscal Year	2003				2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Begin SDD of BAIS					▲																															
BAIS Production Verification Tests							▲																													
MDARS-E SDD		▲																																		
Conduct Sea Fence In- Water tests									▲																											
Redesign and Develop Laser IMS for production												▲																								
Provide Engineering Support for fielding MDARS															▲																					
Increase MDARS-E speed and response																				▲																

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Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE		PROJECT NUMBER AND TITLE	
05 System Development and Demonstration (SDD)	0604287F Physical Security Equipment		5120 Physical Security Equipment - SD/ED	
(U) <u>Schedule Profile</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Begin SDD of BAIS	1Q			
(U) BAIS Milestone C Decision		2Q		
(U) BAIS Production Verification Tests		3Q		
(U) MDARS SDD	2Q			
(U) Complete Early User Appraisal of MDARS -E		4Q		
(U) Conduct Sea Fence In-Water tests		1Q		
(U) Redesign and Develop Laser IMS for production		4Q		
(U) Conduct operational test of MDARS-E			1Q	
(U) Provide engineering support for fielding the MDARS-E			3Q	
(U) P3I for MDARS-E for greater sensing distance				1Q
(U) Increase MDARS-E speed and response feed to support REDCAR				1Q