

OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

APPROPRIATION/ BUDGET ACTIVITY
RDTE, Defense Wide BA 04

PE NUMBER AND TITLE
0603161D8Z - Nuclear & Conventional Phys Sec Equip

COST (\$ in Millions)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
P162 Nuclear & Conventional Phys Sec Equip	38.861	49.131	38.758	39.913	40.826	41.315	41.780

A. Mission Description and Budget Item Justification: The purpose of this program is the advanced engineering development of conventional and nuclear physical security equipment (PSE) systems for all DoD components. 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 continuing and evolving individual Service and joint PSE requirements that provide capability in the areas of force protection and tactical security equipment; robotic security systems integration; waterside security systems; explosive detection equipment; locks, safes and vaults; commercial-off-the-shelf (COTS) testing; and nuclear weapons security. Many RDT&E efforts arising from this PE will transition to PE 604161D8Z for system demonstration and validation. The PSE program is organized so that representatives from the Army, Navy, Air Force, and Defense Threat Reduction Agency (DTRA) monitor, direct and prioritize potential and existing PSE programs through the auspices of the Physical Security Equipment Action Group (PSEAG) and the Security Policy Verification Committee (SPVC). With few exceptions, each Service sponsors RDT&E efforts for technologies and programs that have multi-Service application. This program element supports: 1) the Army's PSE RDT&E efforts in the areas of Interior and Exterior Detection, Security Lighting, Security Barriers and Security Display Units; 2) the Air Force's PSE RDT&E efforts in the areas of Exterior Detection/Surveillance, Entry Control, Delay/Denial, Tactical Systems and Airborne Intrusion; 3) the Navy's PSE RDT&E efforts in the areas of Waterside Security, Explosive Detection, and improved technology for Locks, Safes and Vaults; and 4) DTRA's PSE RDT&E efforts that enhance the security of Navy and Air Force nuclear assets. This PE also funds Force Protection Commercial-Off-The-Shelf (FP COTS) evaluation and testing, which has received additional focus since the 1996 Khobar Towers terrorist bombing incident. The FP COTS testing applies to all available technologies that are considered effective for DoD physical security use.

<u>B. Program Change Summary</u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008)	38.866	38.060	38.823
Current BES/President's Budget (FY 2009)	38.861	49.131	38.758
Total Adjustments	-0.005	11.071	-0.065
Congressional Program Reductions			
Congressional Rescissions			
Congressional Increases		11.071	
Reprogrammings			
SBIR/STTR Transfer			
Other	-0.005		-0.065

C. Other Program Funding Summary Not applicable for this item.

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D. Acquisition Strategy Not applicable for this item.

E. Performance Metrics:

FY	Strategic Goals Supported	Existing Baseline	Planned Performance Improvement / Requirement Goal	Actual Performance Improvement	Planned Performance Metric / Methods of Measurement	Actual Performance Metric / Methods of Measurement
07						
08						

Comment: The program performance metrics are established/approved through the DoD Physical Security Equipment Action Group (PSEAG) and the Security Policy Verification Committee (SPVC). The cost, schedule and technical progress of each project is reviewed at quarterly PSEAG and SPVC meetings. Performance variances are addressed and corrective action is implemented as necessary.

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B. Accomplishments/Planned Program:

<u>Accomplishments/Planned Program Title:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Force Protection/Tactical Security Equipment (FP/TSE):	12.190	19.724	15.435

FY 2007 Accomplishments:

- Began Light Kit, Motion Detection (LKMD) Prototype Design, Fabrication, and Integration of 40 prototype systems.
- Developed an enhanced Command and Control Display Element (CCDE) for Physical Security Systems.
- Developed the software to support the Common Operational Picture.
- Conducted Combined Test Force Evaluation of Phase IV development of the Remote Detection and Tracking System (RDTS).
- Demonstrated the capability of Wireless Security Sensor Networks.
- Initiated development of a low-cost, low-power, miniature, thermal infrared camera with integrated video detection (VMD) and internet protocol (IP) data communications.
- Conducted Operational Test and Evaluation (OT&E) of automated installation access control systems.
- Executed a congressional add to continue designing software for Intelligent Decision Exploration.
- Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continued to manage sensor and assessment product developments and tests.
- Continued to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have Physical Security Equipment (PSE) utility.

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- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.

FY 2008 Plans:

- Integrate Identify Friend or Foe with radar detection systems.
- Plan for automated installation access control system maintenance and sustainment.
- Interface automated installation access control systems with applicable database management systems.
- Conduct Light Kit, Motion Detection (LKMD) product qualification testing (PQT2).
- Continue development of a low-cost, low-power, miniature, thermal infrared camera with integrated video detection (VMD) and internet protocol (IP) data communications.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Execute a congressional add to continue the development of the Intelligent Design Exploration effort.
- Execute a congressional add to develop an Integrated Base Defense Operation Planning Process.

FY 2009 Plans:

- Develop a Trip Wire Sensor.
- Develop an improved active infrared detection system.
- Complete LKMD PQT2.
- Continue spiral development of the Aircraft Self-Protection System (ASPSS).
- Continue spiral development of the Tactical Automated Security System (TASS).
- Continue spiral development of base access control systems.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.

Accomplishments/Planned Program Title:

FY 2007

FY 2008

FY 2009

Robotic Security Systems Integration (RSSI):

5.200

5.810

2.030

FY 2007 Accomplishments:

- Integrated data feeds obtained from unmanned air and ground vehicles to improve surveillance capability and the common operation picture.
- Began to integrate remote weapon systems with robotic platforms.
- Continued to develop a Human Presence and Detection and Assessment capability.
- Evaluated user and site requirements for and initiated development of the Multi-robot Operator Control Unit (MOCU) integration with an Unmanned Aerial Vehicle (UAV).
- Executed a congressional add to continue the development of the Digital Network Centric Remotely Operated Weapon System.
- Executed a congressional add to develop the Integrated High Activity Response System.
- Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continued to test, develop, and integrate equipment to improve robotic integration capability.

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FY 2008 Plans:

- Complete Force Protection Aerial Surveillance System (FPASS) Web-Based Proficiency Simulation.
- Begin FPASS Web Training certification process
- Transition FPASS web-based Trainer and system to USAF.
- Demonstrate the Human Presence Detection and Assessment capability.
- Continue development of a realist test facility defended by a network of remotely operated weapons.
- Continue to develop, test, evaluate, and modify Multi-robot Operator Control Unit/Unmanned Aerial Vehicle (MOCU/UAV) interface.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to test, develop, and integrate equipment to improve robotic integration capability.
- Execute a congressional add to continue the development of the Digital Network Centric Remotely Operated Weapon System.
- Execute a congressional add to continue the development of the Integrated High Activity Response System.

FY 2009 Plans:

- Collaborate on Human Presence sensor integration and testing on robotic platform in exterior environment to refine hardware and algorithms.
- Demonstrate Networked Remotely Operated Weapon System (NROWS) detecting and tracking multiple targets under various control scenarios.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security robotic integration capability.

Accomplishments/Planned Program Title:

FY 2007

FY 2008

FY 2009

Waterside Security System (WSS):

2.928

3.250

3.290

FY 2007 Accomplishments:

- Continued efforts to develop the next generation WQX-2 Sonar with Allies.
- Leveraged WSS efforts in support of nuclear-powered, ballistic nuclear missile-carrying submarines (SSBNs).
- Continued to explore opportunities to develop a viable non-lethal means to neutralize swimmer threats.
- Further developed brassboard WSS prototypes transitioned from concept development.
- Developed AN/WQV-2 ADCAP (advanced capability) version 3.1 software.
- Initiated the redesign of existing radar track processor.
- Continued to research technology to protect shipboard and Marine expeditionary forces.
- Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continued to manage sensor and assessment product developments and tests.
- Continued to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continued to test, develop, and integrate equipment to improve security and access to facilities.

FY 2008 Plans:

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- Develop and integrate a prediction tool into the AN/WQX-2 ADCAP (advanced capability) processor.
- Add patrol boat and radar tracking capability to the ADCAP processor.
- Begin the development of a passive sonar with enhanced diver detection classification and localization (DCL) and engagement capability.
- Support an Expeditionary Waterside Security - JCTD by integrating the Tactical Integration Sensor (TIS) with the Tactical Automated Security System (TASS).
- Complete overwater development of Remote Detection and Tracking Sensor (RDTS).
- Continue the redesign of the existing radar track processor.
- Conduct study to determine the way ahead for Enhanced Harbor Security System (EHSS) algorithm improvements and initiate the Diver Classification Algorithm Project to evaluate potential COTS sonar systems.
- Conduct sensor fusion project to integrate data for sonar systems which have more than one sonar head.
- Conduct study to get a better understanding of the source of sonar nuisance alerts.
- Development of a prototype logging device for an Electronic Deck Log project and demonstrate the utility of a performance prediction tool for a port security system based on actual environmental conditions.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have Physical Security Equipment (PSE) utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

FY 2009 Plans:

- Continue to develop integrated anti-swimmer defense and detection capability.
- Continue to improve algorithms that provide target analysis of waterborne threat.
- Continue the development of a passive sonar with enhanced diver detection classification and localization (DCL) and engagement capability.
- Develop interior hull wireless communications enhancements.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

Accomplishments/Planned Program Title:

Explosive Detection Equipment (EDE):

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Explosive Detection Equipment (EDE):	5.760	6.394	3.500

FY 2007 Accomplishments:

- Acquired emerging explosive detection technology for comparative testing and realignment of a Baseline Explosive Detection Architecture.
- Conducted System Design Review for a Video/Radar Concealed Bomb Detection capability.
- Continued to develop a hybrid image/explosive detection capability.
- Continued to invest in the development of a viable technology to provide a stand off explosive detection capability against Improvised Explosive Devices (IED's).
- Sought to reduce Remote/Standoff Explosive Detection System (R/SEDS) detection time yet increase detection capability.
- Added a capability for R/SEDS to detect obscurants material that may shield the detection of explosives.
- Conducted comparative testing of commercial and developmental explosive detection devices.

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- Conducted operational testing and evaluation (OT&E) of R/SEDS.
- Determined the feasibility of using Computed Tomography (CT) X-Ray technology to detect explosives.
- Continued to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE/EDE utility.
- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continued to test, develop, and integrate equipment to improve security and access to facilities.

FY 2008 Plans:

- Continue development of a long range TeraHertz (THz) explosive detection capability.
- Continue development test and evaluation of mobile vehicle x-ray systems.
- Continue comparative testing and evaluation of Military Working Dogs vs. Trace Detectors.
- Refine the capability of Remote/Standoff Explosive Detection System (R/SEDS) to specifically identify types of explosives.
- Develop and test a backpack version of the Quantum Sniffer.
- Develop a CT Scan algorithm for explosive detection.
- Develop a representative prototype of a field-ruggedized, handheld, battery powered, THz spectrometer for use in military applications.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE/EDE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

FY 2009 Plans:

- Develop a phosphor plate detector for a Computed Tomography (CT) Explosive Scanner.
- Upgrade and test the CT Scanner algorithms.
- Develop a 650 gigahertz (GHz) source for teacher imaging.
- Continue to explore TeraHertz technology in academia and the National Labs.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE/EDE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.
- Continue to manage, develop, evaluate and test explosive detection products and systems.

Accomplishments/Planned Program Title:

FY 2007

FY 2008

FY 2009

Locks, Safes, Vaults:

1.560

1.731

1.750

FY 2007 Accomplishments:

- Developed an Integrated Locking Device (ILD) universal mount prototype.
- Incorporated ILD design improvements that will increase operational capability and improve resistance against forced entry.
- Developed an ILD with biometrics verification capability.
- Integrated biometrics technology with high security lock technology.
- Held 8th Annual Seals Symposium.
- Identified shock and vibration requirements for shipboard security containers.
- Continued to manage, develop, evaluate, and test Delay/Denial products.
- Continued to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.

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- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continued to test, develop, and integrate equipment to improve security of facilities.

FY 2008 Plans:

- Integrate and automate locking systems into other support systems.
- Begin OT&E of Storage Magazine door redesign.
- Develop, prototype and test DoD/GSA shipboard security containers.
- Develop attack resistant systems for the protection of utilities systems.
- Plan and execute a Seals Symposium.
- Develop and maintain a voice recognition based field support program.
- Integrate Internal Locking Device (ILD) identity verification capability software.
- Continue to manage, develop, evaluate, and test Delay/Denial products.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security of facilities.

FY 2009 Plans:

- Begin Low Rate Initial Production (LRIP) of redesigned storage magazine doors.
- Coordinate and support the installation of redesigned storage magazine doors.
- Continue field support program.
- Continue to develop ILD with biometrics/identity verification capability.
- Continue to manage, develop, evaluate, and test Delay/Denial products.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security of facilities.

<u>Accomplishments/Planned Program Title:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Commercial-Off-The-Shelf (COTS) Testing:	2.623	2.228	2.250

FY 2007 Accomplishments:

- Refined Force Protection Equipment Demonstration (FPED) VI on-line registration and informational website.
- Continued to seek near-term (commercial) solutions for immediate force protection needs.
- Executed FPED VI.
- Conducted qualification testing of the MicroTrack Buried Cable Sensor, the OminTrax Buried Cable Sensor and interior sensors.
- Conducted physical and chemical characteristics of COTS Oleroresin Capsicum (OC) pepper spray canister inserts for the TigerLight, a non-lethal defense system.
- Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continued to manage sensor and assessment product developments and tests.
- Continued to test, develop, and integrate equipment to improve security and access to facilities.

FY 2008 Plans:

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- Continue the environmental and human health assessment of COTS Oleroresin Capsicum (OC) pepper spray canister inserts for the TigerLight.
- Continue to seek near-term (commercial) solutions for immediate force protection needs.
- Plan FPED VII.
- Test the Laser Breakbeam Sensor.
- Continue qualification testing of various commercial intrusion detection sensors.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

FY 2009 Plans:

- Execute FPED VII.
- Find commercial solutions to a Common Relevant Operational Picture.
- Continue qualification testing of various commercial intrusion detection sensors.
- Continue to seek near-term (commercial) solutions for immediate force protection needs.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

Accomplishments/Planned Program Title:

FY 2007

FY 2008

FY 2009

Nuclear Weapon Physical Security:

8.600

9.994

10.503

FY 2007 Accomplishments:

- Demonstrated the capabilities and performed user evaluation of the Secure Brow prototype.
- Continued to develop a fully functioning, interactive, 3D view client workstation for the Joint Conflict and Tactical Simulation (JCATS) software.
- Continued to design, fabricate, and install prototype delay upgrade hardware in a (Payload Transporter (PT) III Van.
- Continued development and testing of the Virtual Perimeter Extended Detection (VPED) system, formerly entitled Virtual Perimeter Security System (VPS).
- Completed the study to improve capabilities to apply immediate sufficient duress at a Protective Aircraft Shelter.
- Initiated development of systems to prevent unauthorized access to submarines while located at pier-side and in dry dock.
- Continued to enhance the Navy's Marine Mammal System (MMS) by developing the Limpet Mine Detection capability and the Autonomous Patrol and Interdiction of Swimmers/Divers.
- Continued to build algorithms that model terrorist attacks against critical resources.
- Continued to improve the capability to apply immediate sufficient duress at a Protective Aircraft Shelter.
- Continued to develop hardened capability in the protection of nuclear weapons storage sites and launch facilities.
- Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continued to manage sensor and assessment product developments and tests.
- Continued to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continued to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continued to test, develop, and integrate equipment to improve security and access to facilities.

FY 2008 Plans:

- Continue to develop a fully functioning, interactive, 3D view client workstation for the Joint Conflict and Tactical Simulation (JCATS) software.

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- Demonstrate the capabilities of the upgraded Payload Transporter (PT) III Van prototype.
- Continue refinement and operational testing to the VPED system.
- Continue to develop systems to prevent unauthorized access to submarines while located at pier side and in dry dock.
- Continue to enhance the Navy's Marine Mammal System (MMS) by further development of the Limpet Mine Detection capability and the Optimizing the Vigilance of the MMS.
- Publish a design guidance document based on the findings of the Physical Security of Storage Magazine Study.
- Continue to build algorithms that model terrorist attacks against critical resources.
- Conduct developmental testing of modeling and simulation software.
- Continue to fabricate access denial system prototypes.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

FY 2009 Plans:

- Continue to enhance JCATS software.
- Continue testing high explosives against re-enforced concrete panels and testing mechanical couplers at high strain rates.
- Develop a risk management tool for nuclear weapons physical security.
- Support the retrofit of Storage Magazines.
- Continue to adapt weapons intercept technology to provide protection of nuclear weapons facilities.
- Continue to test and evaluate access denial systems.
- Continue to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products.
- Continue to manage sensor and assessment product developments and tests.
- Continue to research technological advances within industry; at DARPA; DoD, DoE, and University Labs; etc., that have PSE utility.
- Continue to prepare operational systems improvement plans; develop technology roadmaps, and update system architecture.
- Continue to test, develop, and integrate equipment to improve security and access to facilities.

C. Other Program Funding Summary Not applicable for this item.

D. Acquisition Strategy Not applicable for this item.

E. Major Performers Not applicable for this item.

OSD RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
4 - Advanced Component Development and Prototypes (ACDP)			0603161D8Z - Nuclear & Conventional Phys Sec Equip								P162	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Force Protection/Tactical Security Equipment (FP/TSE)	MIPR	PM-FPS (USA), Ft. Belvoir, VA		4900	1Q	4200	1Q	5000	1Q		14100	
Force Protection/Tactical Security Equipment	MIPR	642nd ELSS (USAF), Hanscom AFB, MA		4290	1Q	4200	1Q	5000	1Q		13490	
Force Protection/Tactical Security Equipment	MIPR	DTRA, Ft. Belvoir, VA		700	1Q	1750	1Q	1985	1Q		4435	
Congressional Add for IDE (FP/TSE)	MIPR	NAVSEA Crane, IN		1600	3Q	5500	1Q				7100	
Robotic Security Systems Integration (RSSI)	MIPR	DTRA, Ft. Belvoir, VA		397	1-2Q						397	
Robotic Security Systems Integration (RSSI)	MIPR	PM-FPS (USA), Ft. Belvoir, VA				1020	1Q	2030	1Q		3050	
Congressional Add for INHARS (RSSI)	MIPR	AFRL, Tyndall AFB, VA		2600	1-3Q	4000	2Q				6600	
Congressional Add for Digital ROWS (RSSI)	MIPR	PM-FPS (USA), Ft. Belvoir, VA		1000	3Q	1000	2Q				2000	
Congressional Add for the Integrated Base Defense Operation Planning Process	MIPR	AFRL, Tyndall AFB, VA				1000	2Q				1000	
Waterside Security	MIPR	NSWC, Crane, IN		1600	1Q	3250	1Q	3290	1Q		8140	
Explosive Detection Equipment	MIPR	NAVEODTECHDIV, Indian Head, MD		3210	1Q	6300	1Q	3500	1-2Q		13010	
Explosive Detection Equipment	MIPR	PM-FPS (USA), Ft. Belvoir, VA		315	1Q						315	
Explosive Detection Equipment	MIPR	DTRA, Ft. Belvoir, VA		800	1-3Q						800	
Locks, Safes, and Vaults	MIPR	NFESC, Port Hueneme, CA		1383	1Q	1700	1Q	1750	1Q		4833	
Nuclear Weapons Physical Security	MIPR	DTRA, Ft. Belvoir, VA		4500	3-4Q	9694	1Q	10498	1Q		24692	
Nuclear Weapons Physical Security	MIPR	SSP, Arlington, VA		3750	3Q						3750	

OSD RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY				PE NUMBER AND TITLE							PROJECT	
4 - Advanced Component Development and Prototypes (ACDP)				0603161D8Z - Nuclear & Conventional Phys Sec Equip							P162	
Nuclear Weapons Physical Security	MIPR	SPAWAR, Charleston, SC		345	4Q						345	
Subtotal:				31390		43614		33053			108057	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Explosive Detection Equipment	MIPR	642nd ELSS, Hanscom AFB, MA		870	1-3Q						870	
COTS Testing	MIPR	PM-FPS (USA), Ft. Belvoir, VA		2247	1Q	2228	1Q	2250	1Q		6725	
Subtotal:				3117		2228		2250			7595	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Force Protection/Tactical Security Equipment	MIPR	642nd ELSS (USAF) , Hanscom AFB, MA		2047	1Q	2000		2000			6047	
Force Protection/Tactical Security Equipment		DATSD (Nuclear Matters)		1400	1Q	439		600			2439	
Waterside Security	MIPR	NAVSEA (Navy)		517	1Q	500		500			1517	

OSD RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT	
4 - Advanced Component Development and Prototypes (ACDP)			0603161D8Z - Nuclear & Conventional Phys Sec Equip							P162	
		Arlington, VA									
Locks, Seals, and Vaults	MIPR	NFESC (Navy), Port Hueneme, CA		390	1Q	350		355			1095
Subtotal:				4354		3289		3455			11098
Project Total Cost:				38861		49131		38758			126750

Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes (ACDP)

PE NUMBER AND TITLE
0603161D8Z - Nuclear & Conventional Phys Sec Equip

PROJECT
P162

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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) Conduct Operational Test and evaluation (OT&E) of Smart Gate.			▲																									
Interface automated access control systems with database management systems.	█																											
Develop an improved active infrared detection system.											█																	
(2) Complete Light Kit, Motion Detection (LKMD) product qualification testing (PQT).								▲																				
Begin to integrate remote weapon systems with robotic platforms.	█																											
(3) Demonstrate NROWS capability to detect and track multiple targets.												▲																
(4) Transition FPASS web-based Trainer and system to USAF.																												
(5) Demonstrate NROWS detecting & tracking multiple targets under various scenarios.	▲																											
Leverage WSS efforts in support of SSBNs.	█																											
Add patrol boat and radar tracking capability to ADCAP processor.	█																											

Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes (ACDP)

PE NUMBER AND TITLE
0603161D8Z - Nuclear & Conventional Phys Sec Equip

PROJECT
P162

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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
(6) Integrate the Navy's TIS with USAF's TASS.									▲ ₆																			
Conduct OT&E of R/SEDS.																												
Develop an ILD with biometrics verification capability.																												
(7) Execute FPED VII.																												
(8) Demonstrate the capabilities of the upgraded PT III van prototype.																												

Schedule Detail (R4a Exhibit)

February 2008

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT
4 - Advanced Component Development and Prototypes (ACDP)		0603161D8Z - Nuclear & Conventional Phys Sec Equip						P162
<u>Schedule Detail</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	
Conduct Operational Test and evaluation (OT&E) of Smart Gate.	3Q - 4Q	1Q						
Interface automated access control systems with database management systems.	1Q - 4Q	1Q						
Develop an improved active infrared detection system.			2Q - 3Q					
Complete Light Kit, Motion Detection (LKMD) product qualification testing (PQT).	1Q - 4Q	4Q						
Begin to integrate remote weapon systems with robotic platforms.	1Q - 4Q	1Q - 4Q	1Q - 2Q					
Demonstrate NROWS capability to detect and track multiple targets.			1Q					
Transition FPASS web-based Trainer and system to USAF.	1Q - 4Q	1Q						
Demonstrate NROWS detecting & tracking multiple targets under various scenarios.	1Q - 4Q	1Q - 4Q	1Q - 2Q					
Leverage WSS efforts in support of SSBNs.	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Add patrol boat and radar tracking capability to ADCAP processor.	1Q - 4Q	1Q - 4Q	1Q					
Integrate the Navy's TIS with USAF's TASS.			1Q - 2Q					
Conduct OT&E of R/SEDS.	4Q	1Q - 2Q						
Develop an ILD with biometrics verification capability.	1Q - 4Q	1Q						
Execute FPED VII.			3Q					
Demonstrate the capabilities of the upgraded PT III van prototype.		2Q						