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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Office of Secretary Of Defense **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE								
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 5: <i>Development & Demonstration (SDD)</i>			PE 0604161D8Z: <i>Nuclear & Conventional Phy Sec Equip</i>								
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	4.106	7.566	7.973	0.000	7.973	7.296	8.327	8.843	6.838	Continuing	Continuing
P163: <i>Nuclear & Conventional Phy Sec Equip</i>	4.106	7.566	7.973	0.000	7.973	7.296	8.327	8.843	6.838	Continuing	Continuing

A. Mission Description and Budget Item Justification

The purpose of this program is the system development and validation 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. A number of RDT&E efforts arising from PE 0603161D8Z will transition to this PE 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 effort 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. 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.

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B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	4.331	7.628	0.000	0.000	0.000
Current President's Budget	4.106	7.566	7.973	0.000	7.973
Total Adjustments	-0.225	-0.062	7.973	0.000	7.973
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-0.105	0.000			
• SBIR/STTR Transfer	-0.112	0.000			
• Other Program AdjustmentsOther	-0.008	-0.062	7.973	0.000	7.973

Change Summary Explanation

Reprogramming was used to accommodate the maturation of PSE developmental items from advanced engineering development (BA 4) to system development and demonstration (BA 5). A reduction in PE 0603161D8Z funding reflects the additional funding in this PE.

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604161D8Z: <i>Nuclear & Conventional Phy Sec Equip</i>				PROJECT P163: <i>Nuclear & Conventional Phy Sec Equip</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
P163: <i>Nuclear & Conventional Phy Sec Equip</i>	4.106	7.566	7.973	0.000	7.973	7.296	8.327	8.843	6.838	Continuing	Continuing
Quantity of RDT&E Articles											

Note

There are no new start programs. Several programs and projects have transitioned from PE 0603161D8Z.

A. Mission Description and Budget Item Justification

The purpose of this program is the system development and validation 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. A number of RDT&E efforts arising from PE 0603161D8Z will transition to this PE 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 effort 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. 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.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Robotic Security Systems Integration (RSSI)	1.000	0.000	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>MDARS</p> <p><i>FY 2009 Accomplishments:</i></p> <ul style="list-style-type: none"> - Conducted MDARS product verification endurance testing at HWAD. - Continued to integrate unmanned systems to meet physical security requirements. - Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products. - Continued to manage sensor and assessment product developments and tests. - 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. - Completed a feasibility study of MDARS Integration - system modifications need to be complete before any more demonstrations can be held. 								
<p>Force Protection/Tactical Security Equipment (FP/TSE)</p> <p>This program includes two large projects and several smaller ones (under the Million dollar threshold). Battlefield Anti-Intrusion System (BAIS) Lighting Kit Motion Detector (LKMD)</p> <p><i>FY 2009 Accomplishments:</i></p> <ul style="list-style-type: none"> - Continued the spiral development/modernization of BAIS. - Completed the development of BAIS sensor-to-sensor communications capability. - Began Production Qualification and Verification testing (PQ/VT)of the LKMD. - Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products. - Continued to manage sensor and assessment product developments and tests. - 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. 				3.106	3.035	2.750	0.000	2.750

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>AVERT Joint Requirements Working Group (JRWG) PSEAG Strategic Plan</p> <p><i>FY 2010 Plans:</i></p> <ul style="list-style-type: none"> - Initiate planning sequence for FPED VIII with Stafford Regional Airport - Information Technology - Website Development And Hosting - Database Development - Multi-Media Production Mgmt - Show Management Services - Infrastructure Support - Train 20 military or selected contractor personnel in the use of AVERT. - Refine 3-D site models for specified OCONUS & CONUS sites, to include performing the remaining initial installation visits to collect necessary data. - Perform baseline site security risk assessments and output reports of each site. - Incorporate mitigation strategies as selected by ODATSD(NM), through DTRA, into the baseline models for all OCONUS & CONUS sites - Perform cost-benefit analyses on the mitigation strategies using functions incorporated into AVERT or the associated roll-up tool. - Perform risk-rollup assessments across all sites. - Prepare final briefing and report for all sites to include adversary paths, assessment of mitigation packages including a cost-benefit analysis, and risk roll-up presentation. - Provide support and technical assistance to the AVERT Verification, Validation, & Accreditation (VV&A). - Completion of AVERT batch/automated mitigators processing enhancement (AVERT v 5.0 Enterprise). 								

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none"> - Continue the JRWG process to minimize duplication of efforts and builds common requirements for interoperable and more standardized platforms and solutions. - Continued development the PSEAG Strategic Plan by completing an analytical assessment of current PSEAG Structure to reassess effectiveness, requirements and developmental/acquisition approach in response to the gap analysis shortfalls and developes a long term program to improve solution sets DoD-wide. - Continued to manage, develop, evaluate, and test Detection/Assessment/Delay/Denial products. - Continued to manage sensor and assessment product developments and tests. - 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. 					
Accomplishments/Planned Programs Subtotals	4.106	7.566	7.973	0.000	7.973

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Office of Secretary Of Defense **DATE:** February 2010

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Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BAIS	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	1.415	1.608	Jun 2010	1.250	May 2011	0.000		1.250	Continuing	Continuing	Continuing
LKMD	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	1.000	0.422	Apr 2009	1.000	Apr 2010	0.000		1.000	Continuing	Continuing	Continuing
FPED	MIPR	FM-FPS Ft. Belvoir, VA	0.000	1.280	Dec 2009	1.900	Dec 2010	0.000		1.900	Continuing	Continuing	Continuing
Lock, Vaults, Safes	MIPR	NAVFAC/ESC San Diego, CA	0.000	0.645	Jan 2009	0.977	Jan 2010	0.000		0.977	Continuing	Continuing	Continuing
AVERT	MIPR	DTRA Ft. Belvoir, VA	0.000	0.877	Jan 2009	0.960	Jan 2010	0.000		0.960	Continuing	Continuing	Continuing
MDARS	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	1.000	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			3.415	4.832		6.087		0.000		6.087			

Remarks

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Support (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Locks, Safes, and Vaults	MIPR	NAVFAC San Diego, CA	0.000	0.116	Dec 2009	0.076	Dec 2010	0.000		0.076	Continuing	Continuing	Continuing
AVERT	MIPR	DTRA Ft. Belvoir, VA	0.000	0.760	Dec 2010	0.546	Dec 2010	0.000		0.546	Continuing	Continuing	Continuing
Subtotal			0.000	0.876		0.622		0.000		0.622			

Remarks

Test and Evaluation (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BAIS	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	0.691	0.350	May 2010	0.200	Feb 2011	0.000		0.200	Continuing	Continuing	Continuing
Locks, Safes, and Vaults	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	0.000	0.241	Jan 2010	0.214	Feb 2011	0.000		0.214	Continuing	Continuing	Continuing
Subtotal			0.691	0.591		0.414		0.000		0.414			

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Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
BAIS	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	0.200	0.150	Dec 2009	0.150	Dec 2010	0.000		0.150	Continuing	Continuing	Continuing
LKMD	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	0.000	0.717	Dec 2009	0.200	Dec 2010	0.000		0.200	Continuing	Continuing	Continuing
FPED	MIPR	PM-FPS (USA) Ft. Belvoir, Virginia	0.000	0.400	Dec 2009	0.500	Dec 2010	0.000		0.500	Continuing	Continuing	Continuing
Subtotal			0.200	1.267		0.850		0.000		0.850			

Remarks

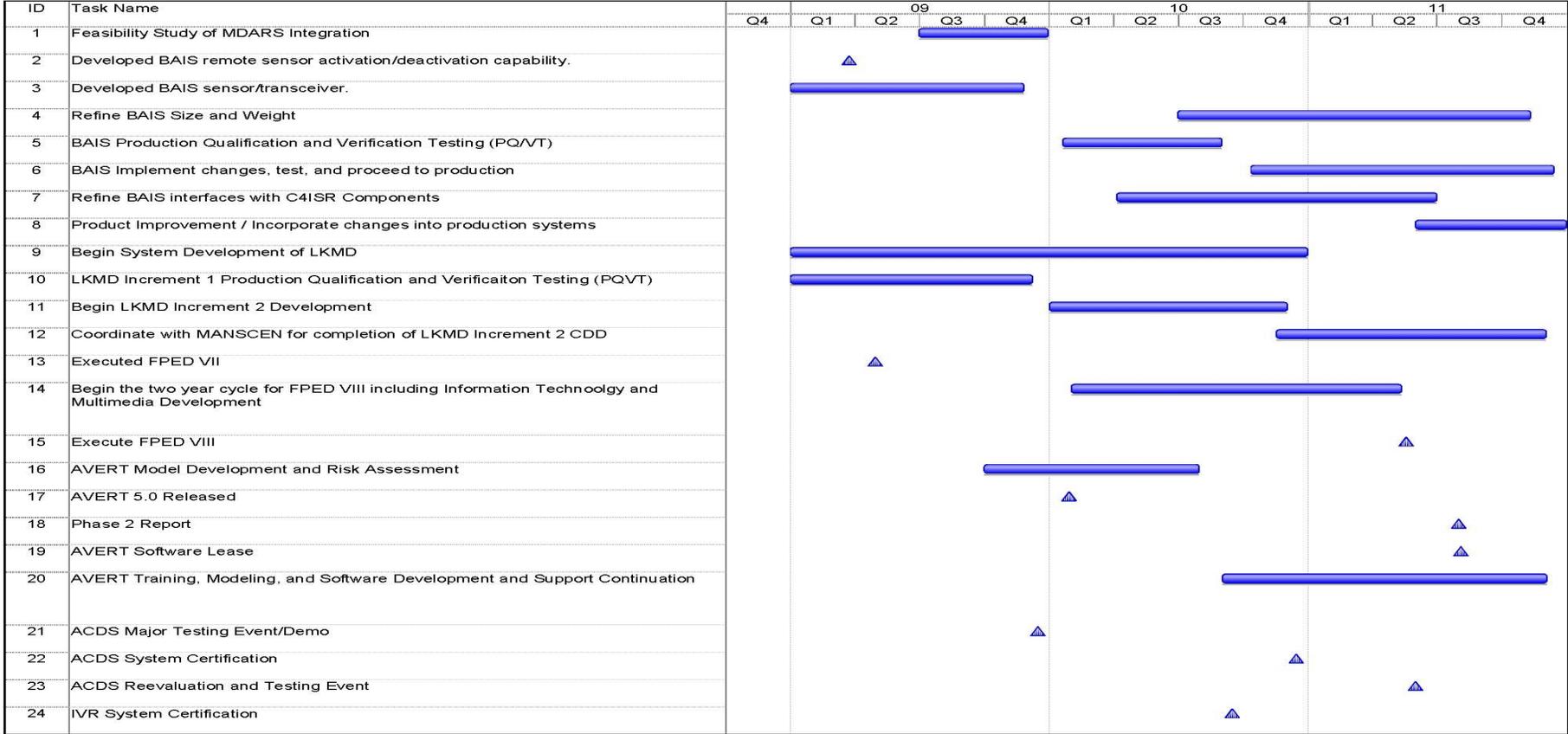
Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	4.306	7.566		7.973		0.000		7.973			

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Office of Secretary Of Defense		DATE: February 2010
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Office of Secretary Of Defense **DATE:** February 2010

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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
AVERT Training, Modeling, and Software Devoplment and Support	3	2010	4	2011
Refine BAIS Interfaces with C4ISR Components	2	2010	2	2011
LKMD Increment 1 Product Qualification and Verification Testing	1	2009	4	2009
ACDS System Certification and Demo	3	2010	4	2010
Refine BAIS size and weight	2	2010	4	2011
BAIS Product Improvement Modernization for production systems	2	2011	4	2011
Develop BAIS remote sensor activation/deactivation capability	1	2009	2	2009
Feasibility Study of MDARS Integration	3	2009	4	2009
SDD of LKMD Increment 2	1	2010	4	2010
Execute FPED VIII	2	2011	2	2011
BAIS Product Verification Endurance Testing	1	2010	3	2010
AVERT Model Development and Risk Assessment	4	2009	3	2010
IVR System Certification and Demo	3	2010	4	2010

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