

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

0603308A - Army Missile Defense Systems Integration (Dem/Val)

COST (In Thousands)	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 Cost
Total Program Element (PE) Cost	31776	48186	11771	13191	15809	22647	23594	0	240770
978 SPACE CONTROL	925	943	2776	6292	7053	12970	12817	0	45641
988 RANGE UPGRADES	14468	0	0	0	0	0	0	0	22073
990 Space and Missile Defense Integration	16383	31373	8995	6899	8756	9677	10777	0	168556
997 Space and Missile Defense BattleLab	0	15870	0	0	0	0	0	0	4500

A. Mission Description and Budget Item Justification: This program element funds space systems integration efforts performed by both the Army Space and Missile Defense Command (SMDC) and the Program Executive Office for Missiles and Space (PEO MS).

SMDC: Headquarters, Department of the Army General Order Number 5, dated 1 March 1998, designated SMDC as the Army specified proponent for space and National Missile Defense (NMD), and the operational integrator for Theater Missile Defense (TMD). As such, SMDC is responsible to develop warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize those space related capabilities.

Project #990 funds the Future Warfare Center (FWC) Directorate of Combat Development (formerly the Force Development Integration Center) to mature warfighting concepts, and validate concepts, identify capabilities needed to implement the validated concepts, and develop DOTMLPF solutions to realize those space related capabilities.

Project #978 funds the Army Core Space Control System (ACSCS) development that provides space control capabilities to meet current Army Requirements Review Committee guidance, DEPSECDEF directives, Army Requirements Oversight Council (AROC)-approved counter-surveillance and reconnaissance system Joint Initial Requirements Document (JIRD), and validated TRADOC capability gaps. Space Control has gained importance with proliferation of satellite technology and the commercial availability of these technologies to potential adversaries. Adversaries will have the capability to capitalize on these assets to identify friendly activities and operations, increase their lethality and intelligence gathering efforts, and thus, reduce our survivability, agility, versatility, and information superiority. The Army Core Space Control System is a System of Systems concept consisting of sensors (to see the satellites), shooters (to deny the satellites), and an integrating battle command capability. Space Control is critical to the Future Force for survivability in that it denies adversary imaging for precision targeting, thus reducing lethality, and limiting intelligence gathering. Space Control also supports the Future Force characteristics of agility and versatility by denying adversary space-based communications and information as our forces respond to varying shifts in intensity and mission requirements. ACSCS was formally transitioned back to the U.S. Army Space and Missile Defense Command (USASMD) from the Program Executive Office, Missiles and Space (PEO MS) in 2005.

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	FY 2005	FY 2006	FY 2007	
<u>B. Program Change Summary</u>				
Previous President's Budget (FY 2006)	32131	9284	14805	
Current BES/President's Budget (FY 2007)	31776	48186	11771	
Total Adjustments	-355	38902	-3034	
Congressional Program Reductions		-212		
Congressional Rescissions		-486		
Congressional Increases		39600		
Reprogrammings	-355			
SBIR/STTR Transfer				
Adjustments to Budget Years			-3034	
FY06 includes Congressional adds (\$39,600) for: Advanced Hypersonic Weapon (AHW) (\$1,000), Allen Army Airfield Upgrades (\$15,100), Low Cost Interceptor (\$10,500), and Near Space Long Loiter Sensor Communications Platform (\$13,000). FY07 funds realigned (\$3,034) to higher priority requirements.				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)								February 2006	
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603308A - Army Missile Defense Systems Integration (Dem/Val)				PROJECT 978	
COST (In Thousands)	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 Cost
978 SPACE CONTROL	925	943	2776	6292	7053	12970	12817	0	45641
<p><u>A. Mission Description and Budget Item Justification:</u> The mission of Space Control is to provide freedom of action in space for friendly forces and to deny the same freedom to the enemy when directed. This includes offensive and defensive operations by the Army to gain and maintain space superiority in the space region and also involves maintaining situational awareness of events in space. The Army Core Space Control System (ACSCS) is a ground-based space capability that provides Counter Satellite Communications (C-SATCOM), space surveillance system (i.e., Space and Threat Surveillance (SaTS) System), a Counter Imagery System, and an integrated Battle Management, Command, Control, Communications, Computers, and Intelligence (BMC4I) System. The Army Requirement Oversight Council approved the Initial Capability Document (ICD) for C-SATCOM in 2005, allowing this initial capability to advance toward the Technology Development Phase. ACSCS was formally transitioned back to the U.S. Army Space and Missile Defense Command (USASMD) from the Program Executive Office, Missiles and Space (PEO MS) in 2005.</p>									
<u>Accomplishments/Planned Program</u>						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
Develop and maintain Space Control program plans and strategies.						550	236	250	
Define Space Control System Architectural requirements.						100	257	250	
Develop system designs and perform systems engineering.						275	450	2276	
Total						925	943	2776	
<p><u>C. Acquisition Strategy</u> Acquisition plans for C-SATCOM, SaTS, and Counter EO will be developed in accordance with National Security Space (NSS) Acquisition Policy 03-01 and will utilize evolutionary acquisition approaches with spiral developments. These system designs will leverage any Science and Technology Objectives (STO) or Advanced Concept Technology Demonstrations (ACTDs) from various technology developers that are ready to transition into an acquisition program. Once systems are fielded, they will be retrofitted with upgraded hardware and software.</p>									

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
4 - Advanced Component Development and Prototypes			0603308A - Army Missile Defense Systems Integration (Dem/Val)								978	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Program plans and strategies	Various	Various	350	300	1-4Q	286	1-4Q	300	1-4Q	0	1236	0
Systems and technical architectures	Various	Various	301	275	1-4Q	150	1-4Q	150	1-4Q	0	876	0
Systems engineering and prototypes	Various	Various	224	250	1-4Q	307	1-4Q	2001	1-4Q	0	2782	0
Subtotal:			875	825		743		2451		0	4894	0
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Government support and support contracts	Various	Various	50	50	1-4Q	50	1-4Q	125	1-4Q	0	275	0
Subtotal:			50	50		50		125		0	275	0
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
T&E Support	Various	Various	0	0	1-4Q	100	1-4Q	150	1-4Q	0	250	0
Subtotal:			0	0		100		150		0	250	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Administration processes	Various	Various	0	50	1-4Q	50	1-4Q	50	1-4Q	0	150	0
Subtotal:			0	50		50		50		0	150	0

ARMY RDT&E COST ANALYSIS (R3)							February 2006				
BUDGET ACTIVITY		PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes		0603308A - Army Missile Defense Systems Integration (Dem/Val)							978		
Project Total Cost:		925	925		943		2776		0	5569	0

Schedule Profile (R4 Exhibit)																				February 2006															
BUDGET ACTIVITY								PE NUMBER AND TITLE																				PROJECT							
4 - Advanced Component Development and Prototypes								0603308A - Army Missile Defense Systems Integration (Dem/Val)																				978							
Event Name								FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
								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
Develop Plans and Strategies								<div></div>																											
Define Architectures								<div></div>																											
Systems Design and Systems Engineering								<div></div>																											

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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)								February 2006	
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603308A - Army Missile Defense Systems Integration (Dem/Val)				PROJECT 990	
COST (In Thousands)	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 Cost
990 Space and Missile Defense Integration	16383	31373	8995	6899	8756	9677	10777	0	168556
A. Mission Description and Budget Item Justification: Headquarters, Department of the Army General Order Number 5, dated 1 March 1998, designated Army Space and Missile Defense Command (SMDC) as the Army specified proponent for space. As such, SMDC is responsible to develop warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize those space related capabilities.									
<u>Accomplishments/Planned Program</u>						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
Plan, develop, and execute concepts and DOTMLPF solutions for Army exploitation of space systems, including Space-Based Infrared System (SBIRS), Multi-Mission Mobile Processor (M3P), Space-Based Radar, Space Support Element Toolsets, and various space control capabilities. Represent Army positions and defend Army equities relative in Joint/DoD and inter-Service activities; e.g., National Security Space Architect (NSSA) Program Assessments, etc. Lead Army's efforts in developing and executing the Space Domain of the Army Knowledge Enterprise Architecture. Develop space modernization strategies and sponsor exploration of future space warfighting concepts in support of Army Transformation.						4053	8327	8995	
Includes FY05 Congressional adds for Low Cost Interceptor, P3 Power System and Radar Power Technology.						12330	0	0	
Includes FY06 Congressional adds for: Advanced Hypersonic Weapon (AHW), Low Cost Interceptor, and Near Space Long Loiter Sensor Communications Platform.						0	23046	0	
Total						16383	31373	8995	
C. Acquisition Strategy Program is continuous. Various performers will conduct planned accomplishments.									

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BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
4 - Advanced Component Development and Prototypes			0603308A - Army Missile Defense Systems Integration (Dem/Val)								990	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Various	Various	Various	104521	0		0		0		0	104521	0
Execute Congressional adds	Various	Various	0	0	2-4Q	23046		0		0	23046	0
Subtotal:			104521	0		23046		0		0	127567	0
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
GOVT SUPPORT & SUPPORT CONTRACTS	VARIOUS	VARIOUS	13246	16383	1-4Q	8327	1-4Q	8995	1-4Q	Continue	0	0
Subtotal:			13246	16383		8327		8995		Continue	0	0
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Subtotal:			0									
Remarks: Not Applicable												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Subtotal:			0									
Remarks: Not Applicable												
Project Total Cost:			117767	16383		31373		8995		0	127567	0

Schedule Profile (R4 Exhibit)																		February 2006																			
BUDGET ACTIVITY										PE NUMBER AND TITLE																		PROJECT									
4 - Advanced Component Development and Prototypes										0603308A - Army Missile Defense Systems Integration (Dem/Val)																		990									
Event Name										FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
										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
Continue development/synchronization of Army space and DOTMLPF solutions.																																					
Execute FY05 Congressional Adds																																					
Execute FY06 Congressional Adds																																					

Schedule Detail (R4a Exhibit)						February 2006	
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes			PE NUMBER AND TITLE 0603308A - Army Missile Defense Systems Integration (Dem/Val)				PROJECT 990
<u>Schedule Detail</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
Execute FY05 Congressional adds.	1-4Q						
Continue development/synchronization of Army space and DOTMLPF solutions	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Execute FY06 Congressional adds		2-4Q					