

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

060330□A - Army Missile Defense Systems Integration (Dem/Val)

COST (In Thousands)	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 Cost
Total Program Element (PE) Cost	34668	32131	9284	14805	13409	16266	23012	23662	0	217735
978 SPACE CONTROL	948	926	957	2734	6196	6942	12759	12601	0	44980
988 RANGE UPGRADES	7800	14475	0	0	0	0	0	0	0	22080
990 SPACE AND MISSILE DEFENSE INTEGRATION	25920	16730	8327	12071	7213	9324	10253	11061	0	150675

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

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, Leader Development, Personnel and Facilities (DOTMLPF) solutions to realize those capabilities.

PEO ASMD (Project #978) - The Army Core Space Control Program formally transitioned to Program Executive Office for Air, Space and Missile Defense (PEO ASMD) from the Army Space and Missile Defense Command (SMDC) in 2003. Space Control provides capabilities that will help meet current Army Requirements Review Committee guidance, DEPSECDEF directives, USSPACECOM Space Control Capstone Requirements Document (CRD), and Army Requirements Oversight Council (AROC)-approved and Joint Requirements Oversight Council (JROC)-approved counter-surveillance and reconnaissance system Joint Initial Requirements Document (JIRD). Space Control has gained much importance with proliferation of satellite technology and the commercial availability of these technologies of 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.

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<u>B. Program Change Summary</u>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2005)	4871	8281	11850
Current Budget (FY 2006/2007 PB)	32131	9284	14805
Total Adjustments	27260	1003	2955
Net of Program/Database Changes			
Congressional Program Reductions	-527		
Congressional Rescissions			
Congressional Increases	28600		
Reprogrammings			
SBIR/STTR Transfer	-813		
Adjustments to Budget Years		1003	2955

Change Summary Explanation:

FY05 increase due to Congressional adds to project 988 as follows: \$9.3 million - Telecommunications Upgrades at Kodiak Launch Complex and \$5.8 million - Kodiak Range Upgrades. Project 990 Congressional adds are as follows: \$10.5 million - Low Cost Interceptor; \$2.0 million - P3 Power system and \$1.0 million -- Radar Power Technology.

FY 06 increase is for space and missile defense integration activities (Project 990).

FY07 increases are as follows: \$1.7 million for development of system designs for space control projects (Project 978) and \$.3 million for the Army to exploit space systems (Project 990).

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COST (In Thousands)	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 Cost
978 SPACE CONTROL	948	926	957	2734	6196	6942	12759	12601	0	44980

A. Mission Description and Budget Item Justification: The Army Core Space Control System (ACSCS) was formally transitioned to the Program Executive Office for Air, Space and Missile Defense (PEO ASMD) from the U.S. Army Space and Missile Defense Command (SMDC) in 2003. On January 13, 2005, PEO ASMD merged with the PEO, Tactical Missiles to become the PEO, Missiles and Space. The ACSCS is a space control toolkit with the initial capability to provide a ground-based space electronic warfare capability (GBSEWC); a ground-based space surveillance system (i.e., Space and Threat Surveillance (SaTS) System); a Counter Intelligence, Surveillance, and Reconnaissance (Counter ISR) System; and an integrated Battle Management, Command, Control, Communications, Computers, and Intelligence (BMC4I) System that will be developed seamlessly along with the PEO Missile and Space's System of Systems initiative. 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.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
Develop and maintain Space Control program plans and strategies.	948	551	250	250
Define Space Control Architectural requirements.	0	100	257	250
Develop system designs and perform systems engineering.	0	275	450	2234
Totals	948	926	957	2734

B. Other Program Funding Summary: Not applicable for this item.

C. Acquisition Strategy: Acquisition plans for GBSEWC, SaTS, and Counter ISR 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.

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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
a . Program plans and strategies	Various	Various	350	300	1-4Q	300	1-4Q	300	1-4Q	0	1250	0
b . Systems and technical architectures	Various	Various	301	276	1-4Q	150	1-4Q	150	1-4Q	0	877	0
c . Systems engineering and prototypes	Various	Various	224	250	1-4Q	307	1-4Q	1959	1-4Q	0	2740	0
Subtotal:			875	826		757		2409		0	4867	0

II. Support Cost	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
a . 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

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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
a . 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
a . 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

Project Total Cost:			925	926		957		2734		0	5542	0
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Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
**060330□A - Army Missile Defense Systems
 Integration (Dem/Val)**

PROJECT
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Event Name	FY 05				FY 06				FY 0□				FY 0□				FY 0□				FY 10				FY 11				FY 12			
	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
Develop Plans and Strategies	█				█				█				█				█				█				█							
Define Architectures	█				█				█				█				█				█				█							
Systems Design and Systems Engineering	█				█				█				█				█				█				█				█			

Schedule Detail (R4a Exhibit)

February 2005

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
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PROJECT
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<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Develop Plans and Strategies	1-4Q	1-4Q	1-4Q	1-4Q				
Define Architectures	1-4Q	1-4Q	1-4Q	1-4Q				
Systems Design and Systems Engineering			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

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BUDGET ACTIVITY
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PE NUMBER AND TITLE
060330□A - Army Missile Defense Systems Integration (Dem/Val)

PROJECT
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COST (In Thousands)	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 Cost
988 RANGE UPGRADES	7800	14475	0	0	0	0	0	0	0	22080

A. Mission Description and Budget Item Justification: This project funds necessary range support for Department of Defense flight tests at Kodiak Island, Alaska. The Kodiak Launch Facility Complex is designed to provide an opportunity for demonstrating various elements potentially suitable for incorporation into ballistic missile defense system development.

<u>Accomplishments/Planned Program</u>	FY 2004	FY 2005	FY 2006	FY 2007
Continue range support activities	7800	14475	0	0
Totals	7800	14475	0	0

B. Other Program Funding Summary: Not applicable for this item.

C. Acquisition Strategy: Not applicable for this item.

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PROJECT
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COST (In Thousands)	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 Cost
990 SPACE AND MISSILE DEFENSE INTEGRATION	25920	16730	8327	12071	7213	9324	10253	11061	0	150675

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, Leader Development, Personnel and Facilities (DOTMLPF) solutions to realize those capabilities. This project supports these efforts.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
Continue efforts to 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, 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 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.	8352	3676	8327	12071
Includes Congressional adds for Low Cost Interceptor, P3 Power System and Radar Power Technology.	17568	13054	0	0
Totals	25920	16730	8327	12071

B. Other Program Funding Summary: Not applicable for this item.

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C. Acquisition Strategy: Program is continuous. Various performers will conduct planned accomplishments.

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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
a . Various	Various	Various	104521	0		0		0		0	104521	0
Subtotal:			104521	0		0		0		0	104521	0

II. Support Cost	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
a . GOVT SUPPORT & SUPPORT CONTRACTS	VARIOUS	VARIOUS	13246	16730	1-4Q	8327	1-4Q	12071	1-4Q	Continue	50374	0
Subtotal:			13246	16730		8327		12071		Continue	50374	0

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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	0		0		0		0	0	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	0		0		0		0	0	0

Remarks: Not Applicable

Project Total Cost:			117767	16730		8327		12071		Continue	154895	0
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Schedule Profile (R4 Exhibit)

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Event Name	FY 04				FY 05				FY 06				FY 0□				FY 0□				FY 0□				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	1	2	3	4
Continue dev/synchronization of Army space & DOTMLPF solutions																																
Execute Congressional adds																																

Schedule Detail (R4a Exhibit)

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PROJECT
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<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Execute 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	1-4Q