

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE								
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>								
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	32188	38740	17421	20065	27347	28694	34700	32300		231455
978 SPACE CONTROL	917	2746	6243	7040	12970	12817	18000	15000		75733
990 Space and Missile Defense Integration	30308	19676	11178	13025	14377	15877	16700	17300		138441
997 Space and Missile Defense BattleLab	963	16318								17281

**A. Mission Description and Budget Item Justification:** This program element funds space systems integration efforts performed by the US Army Space and Missile Defense Command (USASMDC).

USASMDC: 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 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, Deputy Secretary of Defense (DEPSECDEF) directives, Army Requirements Oversight Council (AROC)-approved counter-surveillance and reconnaissance system Joint Initial Requirements Document (JIRD), and validated Training and Doctrine Command (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 (USASMDC) from the Program Executive Office, Missiles and Space (PEO MS) in 2005.

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<b>4 - Advanced Component Development and Prototypes</b>	<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>			
<b><u>B. Program Change Summary</u></b>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	48186	11771	13191	15809
Current BES/President's Budget (FY 2008/2009)	32188	38740	17421	20065
Total Adjustments	-15998	26969	4230	4256
Congressional Program Reductions		-147		
Congressional Rescissions				
Congressional Increases		27400		
Reprogrammings	-15998	-284		
SBIR/STTR Transfer				
Adjustments to Budget Years			4230	4256

FY06 includes a reprogramming of a Congressional add for Allen Army Airfield Upgrades (\$15,100) to the Operations and Maintenance, Army appropriation for execution.

FY07 includes Congressional adds (\$27,400) for: Advanced Hypersonic Weapon Kill Vehicle Integration (\$4,000), Divert Barriers at Allen Army Airfield (\$3,000), Low Cost Intceptor (\$3,900), and Allen Army Airfield Upgrades (\$16,500).

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>		<b>PE NUMBER AND TITLE</b> <b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>							<b>PROJECT</b> <b>978</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
978      SPACE CONTROL	917	2746	6243	7040	12970	12817	18000	15000		75733

**A. Mission Description and Budget Item Justification:** 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 Requirements 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 (USASMDC) from the Program Executive Office, Missiles and Space (PEO MS) in 2005.

<b>Accomplishments/Planned Program:</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Develop and maintain Space Control program plans and strategies.	236	250	400	300
Define Space Control System Architectural requirements.	257	250	250	250
Develop system designs and perform systems engineering.	424	2169	1750	2000
Develop System Prototype			2843	2990
Test and Evaluation of Prototype			1000	1500
Small Business Innovative Research/Small Business Technology Transfer Program		77		
<b>Total</b>	<b>917</b>	<b>2746</b>	<b>6243</b>	<b>7040</b>

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

**C. Acquisition Strategy** Acquisition plans for C-SATCOM, SaTS, and Counter Electro Optical (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.

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

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 2006 Cost	FY 2006 Award Date	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
Program plans and strategies	Various	Various	650	286	1-4Q	300	1-4Q	400	1-4Q	400	1-4Q		2036	
Systems and technical architectures	Various	Various	576	150	1-4Q	150	1-4Q	150	1-4Q	150	1-4Q		1176	
Systems engineering and prototypes	Various	Various	474	281	1-4Q	1971	1-4Q	4543	1-4Q	4890	1-4Q		12159	
Subtotal:			1700	717		2421		5093		5440			15371	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Government support and support contracts	Various	Various	100	50	1-4Q	125	1-4Q	200	1-4Q	200	1-4Q		675	
Subtotal:			100	50		125		200		200			675	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
T&E Support	Various	Various		100	1-4Q	150	1-4Q	850	1-4Q	1300	1-4Q		2400	
Subtotal:				100		150		850		1300			2400	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Administration processes	Various	Various	50	50	1-4Q	50	1-4Q	100	1-4Q	100	1-4Q		350	
Subtotal:			50	50		50		100		100			350	

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE						PROJECT				
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>						<b>978</b>				
<b>Project Total Cost:</b>	<b>1850</b>	<b>917</b>		<b>2746</b>		<b>6243</b>		<b>7040</b>			<b>18796</b>

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT															
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>																<b>978</b>															
Event Name	FY 06				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	2	3	4
Develop Plans and Strategies	[Redacted]																															
Define Architectures	[Redacted]																															
System Design and System Engineering	[Redacted]																															
Prototype Development	[Redacted]																															
Test and Evaluation	[Redacted]																															

**Schedule Detail (R4a Exhibit)**

**February 2007**

BUDGET ACTIVITY <b>4 - Advanced Component Development and Prototypes</b>		PE NUMBER AND TITLE <b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>					PROJECT <b>978</b>		
<u>Schedule Detail</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>	<u>FY 2012</u>	<u>FY 2013</u>	
Develop Plans and Strategies	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q				
Define Architectures	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q					
System Design and System Engineering	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Prototype Development			1Q - 4Q	1Q - 4Q					
Test and Evaluation			1Q - 4Q	1Q - 4Q					

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>		<b>PE NUMBER AND TITLE</b> <b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>							<b>PROJECT</b> <b>990</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
990      Space and Missile Defense Integration	30308	19676	11178	13025	14377	15877	16700	17300		138441

**A. Mission Description and Budget Item Justification:** Headquarters Department of the Army (HQDA) General Order Number 5, dated 1 March 1998, designated US Army Space and Missile Defense Command (USASMDC) as the Army specified proponent for space. As such, USASMDC 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.

<b>Accomplishments/Planned Program:</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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, near space, and missile defense warfighting concepts in support of Army Transformation. Sustain Joint Blue Force Situational Awareness (JBFS) Mission Management Center and its associated testbed for both operations and spiral development for 24/7 Blue Force Tracking integration into a realtime common operating picture for Combatant Commanders, Joint Task Force Commanders and Coalition partners.	7698	8771	11178	13025
Includes FY06 Congressional adds for: Low Cost Interceptor, and Near Space Long Loiter Sensor Communications Platform. Includes FY07 Congressional adds for: Advanced Hypersonic Weapon Kill Vehicle Integration (\$4,000), Divert Barriers at Allen Army Airfield (\$3,000), and Low Cost Inceptor (\$3,900).	22610	10483		
Small Business Innovative Research/Small Technology Transfer Programs		422		
<b>Total</b>	<b>30308</b>	<b>19676</b>	<b>11178</b>	<b>13025</b>

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

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

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
<b>4 - Advanced Component Development and Prototypes</b>			<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>									<b>990</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Various	Various	Various	104521										104521	
Execute Congressional adds	Various	Various		22610	2-4Q	10483	2-4Q						33093	
SBIR/STTR						422	2Q						422	
Subtotal:			104521	22610		10905							138036	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
GOVT SUPPORT & SUPPORT CONTRACTS	Various	Various in Colorado Springs CO and Huntsville AL	29629	7698	1-4Q	8771	1-4Q	11178	1-4Q	13025		Cont.	Cont.	
Subtotal:			29629	7698		8771		11178		13025		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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:														
Remarks: Not Applicable														
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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:														
Remarks: Not Applicable														

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT			
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>						<b>990</b>			
<b>Project Total Cost:</b>		<b>134150</b>	<b>30308</b>		<b>19676</b>		<b>11178</b>		<b>13025</b>	<b>Cont.</b>	<b>Cont.</b>

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# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT															
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>																<b>990</b>															
Event Name	FY 06				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	2	3	4
Development/synchronization of Army space and BMD DOTMLPF solutions.	[Redacted]																															
Execute FY06 Congressional Adds	[Redacted]																															
Execute FY07 Congressional Adds					[Redacted]																											

# Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY <b>4 - Advanced Component Development and Prototypes</b>		PE NUMBER AND TITLE <b>0603308A - Army Missile Defense Systems Integration (Dem/Val)</b>					PROJECT <b>990</b>		
<u>Schedule Detail</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>	<u>FY 2012</u>	<u>FY 2013</u>	
Development/synchronization of Army space and BMD DOTMLPF solutions.	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Execute FY06 Congressional Adds	2Q - 4Q								
Execute FY07 Congressional Adds		2Q - 4Q							