

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0303142A - SATCOM Ground Environment (SPACE)

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	45316	58902	40097	Continuing	Continuing
253 DSCS-DCS (PHASE II)	7605	7858	7125	Continuing	Continuing
456 MILSATCOM SYSTEM ENGINEERING	25865	16160	28788	Continuing	Continuing
562 MBAND INT SAT TERM MIST	11846	34884	4184	Continuing	Continuing

A. Mission Description and Budget Item Justification: Military Satellite Communication (MILSATCOM) systems are joint program/project efforts to satisfy ground mobile requirements for each Service, the Joint Chiefs of Staff (JCS), the National Command Authority, the combatant commanders, the National Security Agency, the Office of the Secretary of Defense, and other governmental, non-DoD users. The worldwide MILSATCOM systems are: Ultra High Frequency (UHF) Follow-On Satellite System; Air Force Satellite (FLTSAT/AFSAT) system; the Mobile User Objective System (MUOS); the Super High Frequency (SHF) Defense Satellite Communications System (DSCS); the Wideband Global SATCOM (WGS); the MILSTAR Extremely High Frequency (EHF)(Low Data Rate (LDR) and Medium Data Rate (MDR); the Advanced Extremely High Frequency (AEHF); and future MILSATCOM capabilities, all of these systems are required to support legacy, interim and emerging communication space architectures and Objective Force requirements. The Army is responsible for materiel development, acquisition, product improvement, testing, fielding and integrated logistics support of ground satellite terminals and SATCOM control subsystems and all associated equipment used to provide range extension of Command, Control and Communications Systems for the Warfighter. The Army also participates in the development of MILSATCOM programs, including architectures, payloads, waveforms, antennas and terminal developments to ensure US Army equities are appropriately addressed with our sister services. This includes technology assessment efforts associated with the integration of MILSATCOM components to US Army Landwarnet This responsibility also includes maintaining the life cycle logistics support required to achieve end-to-end connectivity and interoperability, satisfying JCS Command, Control, Communications and Intelligence (C3I) in support of the President, JCS, combatant commanders, Military Departments, Department of State, and other government Departments and Agencies.

This program is designated as a DoD Space Program.

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B. Program Change Summary

	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	107092	106327	131771
Current BES/President's Budget (FY 2010)	45316	58902	40097
Total Adjustments	-61776	-47425	-91674
Congressional Program Reductions		-47425	
Congressional Rescissions	-49800		
Congressional Increases			
Reprogrammings	-9021		
SBIR/STTR Transfer	-2955		
Adjustments to Budget Years			-91674

Change Summary Explanation:

Funding - FY 2008 - Funding reprogrammed (-9,021) from Project 562 to other higher priority programs.
Funding rescissions (-49,800).

Funding - FY 2010: Funding realigned (91,040) to Army high priority efforts.

Funding - FY 2011 : Funding realigned (+44,473) to support MILSATCOM System Engineering efforts.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)					May 2009															
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)			PROJECT 253														
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost															
253 DSCS-DCS (PHASE II)	7605	7858	7125	Continuing	Continuing															
A. Mission Description and Budget Item Justification: This project provides funds to develop strategic and tactical Ground Subsystem equipment and software in support of Joint Chiefs of Staff (JCS) validated Command, Control, Communications and Intelligence (C3I) requirements for the worldwide Defense Enterprise Wideband SATCOM System (DEWSS). It is composed of the Super High Frequency (SHF) Defense Satellite Communications System (DSCS) and Wideband Global SATCOM (WGS) programs. Continuing upgrades for the DSCS and WGS are vital to support the emerging power projection and rapid deployment role of the Armed Forces. DSCS and WGS provide Warfighters multiple channels of tactical connectivity as well as interfaces with strategic networks and national decision-makers.																				
<u>Accomplishments/Planned Program:</u>				<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>														
Continue the development of the DSCS Integrated Management System (DIMS) Interface Software program				4228	3953															
Completed the development of the Common Network Planning Software (CNPS) program				262																
Netcentric Systems Engineering and Analysis				1085	1319	4567														
Continue SATCOM Engineering Lab (SEL), PM Admin, and Systems Engineering Technical Assistance (SETA) efforts				2030	2391	2558														
Small Business Innovative Research/Small Business technology Transfer Programs (SBIR/STTR)					195															
Total				7605	7858	7125														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; padding: 5px;"><u>B. Other Program Funding Summary</u></td> <td style="width: 15%; text-align: center; padding: 5px;">FY 2008</td> <td style="width: 15%; text-align: center; padding: 5px;">FY 2009</td> <td style="width: 15%; text-align: center; padding: 5px;">FY 2010</td> <td style="width: 15%; text-align: center; padding: 5px;">To Compl</td> <td colspan="2" style="width: 15%; text-align: center; padding: 5px;">Total Cost</td> </tr> <tr> <td style="padding: 5px;">DSCS Other Procurement Army</td> <td style="text-align: center; padding: 5px;">133937</td> <td style="text-align: center; padding: 5px;">69680</td> <td style="text-align: center; padding: 5px;">145180</td> <td style="text-align: center; padding: 5px;">Continuing</td> <td colspan="2" style="text-align: center; padding: 5px;">Continuing</td> </tr> </table>							<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost		DSCS Other Procurement Army	133937	69680	145180	Continuing	Continuing	
<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost															
DSCS Other Procurement Army	133937	69680	145180	Continuing	Continuing															
Comment:																				
C. Acquisition Strategy The DSCS Integrated Management System (DIMS) and Common Network Planning Software (CNPS) are software programs. DIMS provides the capability to electronically disseminate network plans to the monitoring and controlling Enterprise Wideband Satellite Payload Control subsystems, and retrieves and displays subsystem monitoring data. It also provides a comprehensive view of network operations at Wideband Operations Centers and DISA management sites. CNPS plans strategic and Ground Mobile Forces (GMF) satellite communication networks for DSCS, WGS, and commercial satellites. DIMS and CNPS will be installed at Wideband Operations Centers and DISA Management Sites at worldwide locations. PM DCATS employs Netcentric Systems Engineering to develop the technology for new ground segment equipments which will include studies, risk mitigation, system integration and advanced demonstrations for Netcentric Baseband and Policy Based Control to accomodate technology insertion, data sharing, remote operations, architecture efforts and use of commercial technology to conform to Department of Defense (DoD) requirements.																				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		May 2009
BUDGET ACTIVITY 7 - Operational system development	PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)	PROJECT 253

ARMY RDT&E COST ANALYSIS (R3)										May 2009		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)						PROJECT 253		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DIMS Software	C / CPFF	JHU/APL, Laurel, MD	36726	3803	1-2Q	3500	1Q				44029	44029
CNPS	C / FFP	Northrop Grumman, Winter Park, FL	34388								34388	34388
MET	S/CPFF	Hypres, Elmsford, NY	1069								1069	1069
Subtotal:			72183	3803		3500					79486	79486
Remarks: JHU/APL - John Hopkins University/Applied Physics Laboratory												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	Fort Monmouth, NJ	7950	409	1-2Q	705	1-2Q	376	1-2Q	Cont.	Cont.	Cont.
SETA Support	C / CPFF	Fort Monmouth, NJ	3753	318	1-2Q	110	1-2Q			Cont.	Cont.	Cont.
Netcentric Systems Engineering	C / CPFF	Fort Monmouth, NJ	4281	1085	1-2Q	1319	1-2Q	4567	1-2Q	Cont.	Cont.	Cont.
Core Support	Various	Fort Monmouth, NJ	4663	700	1-4Q	735	1-4Q	772	1-4Q	Cont.	Cont.	Cont.
Subtotal:			20647	2512		2869		5715		Cont.	Cont.	Cont.
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
JSEC	MIPR	Fort Monmouth, NJ	8715	700	2Q	675	2Q	760	2Q	Cont.	Cont.	Cont.
Subtotal:			8715	700		675		760		Cont.	Cont.	Cont.
Remarks: JSEC - Joint Satellite Engineering Center												
IV. Management Services	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award	FY 2009 Cost	FY 2009 Award	FY 2010 Cost	FY 2010 Award	Cost To Complete	Total Cost	Target Value of

ARMY RDT&E COST ANALYSIS (R3)									May 2009			
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)							PROJECT 253		
	Type				Date		Date		Date			Contract
PM Admin	Various	Fort Monmouth, NJ	6095	590	1-4Q	814	1-4Q	650	1-4Q	Cont.	Cont.	Cont.
Subtotal:			6095	590		814		650		Cont.	Cont.	Cont.
Project Total Cost:			107640	7605		7858		7125		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)																				May 2009																	
BUDGET ACTIVITY										PE NUMBER AND TITLE																				PROJECT							
7 - Operational system development										0303142A - SATCOM Ground Environment (SPACE)																				253							
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15								
	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					
CNPS Testing V2.0	V2.0																																				
(1) CNPS Materiel Release V2.0					1				V5.2																												
DIMS Testing V5.2																																					
(2) DIMS Materiel Release V5.2																																					
DIMS Testing V6.0									V6.0				V 6.0																								
(3) DIMS Materiel Release V 6.0													3																								
Netcentric System Engineering, Conduct System Engineering Studies/Analysis																																					
Advanced Demonstrations for Baseband and Policy Based Control																																					

Schedule Detail (R4a Exhibit)							May 2009	
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)				PROJECT 253	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
CNPS Testing V2.0	1Q - 2Q							
CNPS Materiel Release V2.0	4Q							
DIMS Testing V5.2		2Q - 3Q						
DIMS Materiel Release V5.2		4Q - 3Q						
DIMS Testing V6.0		4Q	1Q					
DIMS Materiel Release V 6.0			2Q					
Netcentric System Engineering	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
Conduct System Engineering Studies/Analysis	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
Advanced Demonstrations for Baseband and Policy Based Control			1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)					May 2009	
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)		PROJECT 456	
COST (In Thousands)		FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
456	MILSATCOM SYSTEM ENGINEERING	25865	16160	28788	Continuing	Continuing
A. Mission Description and Budget Item Justification: MILSATCOM System Engineering provides centralized funding for US Army participation in the development of MILSATCOM programs. This includes engineering, technical and CAIV related analyses supporting architecture, payloads, network and terminal requirement and design decisions across all MILSATCOM programs MILSATCOM System Engineering also supports experimentation and/or development of new and emerging SATCOM related technologies. This includes prototyping efforts to address technology gaps identified by US Army Program of Records (POR) in the US Army Technology Transition Matrix. The FY2010 funding support increased efforts in the area of Protected Communications and other related efforts.						
<u>Accomplishments/Planned Program:</u>				<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Protected Advanced EHF (AEHF) Communications System Engineering				1100	1200	3188
Wideband Global SATCOM (WGS) Communications System Engineering				1075	1200	2000
Experimentation, development, testing and certification of critical SATCOM and SOTM communication and network technologies.				3227	5671	11600
Intelligence, Survelilance, Reconnanisance (ISR) POR Migration to OPM WIN T SATCOM Solutions. Includes Reginal Hub Node (RHN) mods, Joint Management and Operations Subsystem (JMOS) mods, Terminal Certifications (WGS)					2000	1000
Federal Communications Comission/ International Telecommunciations Union (FCC/ITU) SOTM Regulatory Proposals/Analyses/Modifications					1100	2000
Protected COTM Technical Reference Terminal Prototyping						9000
Soldier Network Extension (SNE) SATCOM Terminal development in support of WIN-T Increment 2 Communications Network. Includes Antenna and Modem modifications required per Increment 2 DT/LUT				18000	1500	
Small Business Innovative Research/Small Business Technology Transfer Programs					435	
Transformational Satellite (TSAT) Communications System Engineering				2463	3054	
Total				25865	16160	28788
<u>B. Other Program Funding Summary</u>		FY 2008	FY 2009	FY 2010	To Compl	Total Cost
373142/562 MILSATCOM SYSTEM ENGINEERING		11846	34884	4184	Continuing	Continuing

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May 2009

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE	PROJECT
0303142A - SATCOM Ground Environment (SPACE)	456

456

0303142A - SATCOM Ground Environment (SPACE)

(RDTE)
373142/563 HC3 BLOCK 2 TSAT DEVELOPMENT

Continuing

Continuing

Comment:

C. Acquisition Strategy This project funds advanced systems engineering, research, development, test and evaluation of new and emerging technologies to optimize terminal performance and communications control. Once the technologies are mature and deemed feasible, funding and management responsibility for implementation of the technology will transition to Army PORs.

C. Acquisition Strategy This project funds advanced systems engineering, research, development, test and evaluation of new and emerging technologies to optimize terminal performance and communications control. Once the technologies are mature and deemed feasible, funding and management responsibility for implementation of the technology will transition to Army PORs.

ARMY RDT&E COST ANALYSIS (R3)										May 2009		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)						PROJECT 456		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Protected Advanced EHF and WGS Communications System Engineering	MIPR/PWD	Various	19351			5000	1-3Q	2500	1-4Q		26851	
Experimentation, development, testing & certification of SATCOM & SOTM communication & networking.	MIPR/PWD	Various						7600	2-4Q		7600	
Protected COTM Tactical Reference Terminal Prototyping	MIPR/PWD	Various						5088			5088	
Terminal Upgrades, SNE, Engineering Support	MIPR/PWD	General Dynamics Taunton, MA	1524	17300	2Q	1500	2Q				20324	
Subtotal:			20875	17300		6500		15188			59863	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering (In House)		Core, Matrix,	15852	1238	1-4Q	1100		3800	1-4Q	Cont.	Cont.	
Engineering Contractors Support	MIPR/PWD	JANUS, BAH, Linquest, JHU APL	22135	3100	2Q	3182	2Q	3800	1-4Q	Cont.	Cont.	
System Architecture & Analysis	MIPR/PWD	MIT Lincoln Labs, Lexington, MA; MITRE, CERDEC	13063	1000		600	1-3Q	1000	1-3Q	Cont.	Cont.	
Subtotal:			51050	5338		4882		8600		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract

ARMY RDT&E COST ANALYSIS (R3)									May 2009			
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)							PROJECT 456		
Test Support	MIPR/PWD	MIT Lincoln Labs, Lexington, MA, General Dyanamics, Tauton MA	17998	1634	1Q			1500	2-3Q	Cont.	Cont.	Cont.
Terminal Certification, ISR POR Migration	MIPR/PWD	John Hopkins Unversity, Applied Physics Laboratory , MD				500	2-3Q	600	2-3Q		1100	
Testing, Certification	MIPR/PWD	CERDEC Support Technical Testing				3078	1-4Q	1500	1-4Q	Cont.	Cont.	Cont.
Subtotal:			17998	1634		3578		3600		Cont.	Cont.	Cont.
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Oversight	MIPR/PWD	In-House		274	2Q	400	1-2Q	400	1-4Q	Cont.	Cont.	
Advanced Architecture/ Advanced Wideband System Architecture	MIPR/PWD	MIT Lincoln Labs Lexington, MA and General Dynamics Taunton, MA , Linquest, MITRE	8024	1319	2-3Q	800	2-3Q	1000	2-3Q	Cont.	Cont.	
Subtotal:			8024	1593		1200		1400		Cont.	Cont.	
Project Total Cost:			97947	25865		16160		28788		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)																				May 2009												
BUDGET ACTIVITY										PE NUMBER AND TITLE																PROJECT						
7 - Operational system development										0303142A - SATCOM Ground Environment (SPACE)																456						
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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				
Protected AEHF, WGS, Sys Eng and Analysis																																
Advanced Component Experimentation/Prototyping																																
FCC/ITU SOTM Regulatory Proposals/Analyses/Modifications																																
ISR POR Migration to OPM WIN T SATCOM																																
Protected COTM Tactical Reference Terminal Development Strategy																																
Soldier Network Extension SATCOM Terminal development																																

Schedule Detail (R4a Exhibit)							May 2009	
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)				PROJECT 456	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
Protected AEHF, WGS, Sys Eng and Analysis	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q
Advanced Component Experimentation/Prototyping	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q
FCC/ITU SOTM Regulatory Proposals/Analyses/Modifications		1Q - 4Q	1Q - 4Q	1Q - 4Q				
ISR POR Migration to OPM WIN T SATCOM		1Q - 4Q	1Q - 4Q	1Q - 4Q				
Protected COTM Tactical Reference Terminal Development Strategy			1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q
Soldier Network Extension SATCOM Terminal development	1Q - 4Q	1Q - 4Q						

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BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)			PROJECT 562														
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost															
562 MBAND INT SAT TERM MIST	11846	34884	4184	Continuing	Continuing															
A. Mission Description and Budget Item Justification: A. Mission Description and Budget Item Justification: Multi-band Integrated Satellite Terminal (MIST) funds will develop the high capacity communications capability (HC3) for Increment 1. The HC3 will provide high data rate communications capabilities that will be pervasively integrated into the Army's Future Modular Force communication architecture, as well as other Service and Joint communication architectures. HC3 will break traditional terminal architecture paradigms by developing a modular , open systems architecture that supports hardware and software module reuse across HC3 platforms, as well as other Joint Service applications. HC3 will be a family of tactical Multi-band, modular, communications terminals that will provide inter-network and reach back communications services across the Army's Future Modular Force tactical networks. HC3 will develop a high capacity, multi-band, protected Communications satellite solution to replace end-of-life tactical terminals in the early-mid 2020's timeframe. As a result of recent Department of Defense (DoD) initiatives to reduce technical, cost, and schedule risk in large development programs, the HC3 program has been restructured. Various risk mitigation studies and analyses will be executed with tri-service participation in order to further lower risk prior to MS A. FY10 funds will support detailed studies and analyses of future MILSATCOM capabilities to support Army requirements.																				
<u>Accomplishments/Planned Program:</u>				<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>														
High capacity communications capability studies/efforts that include Waveform porting issues and high speed/capacity Cryptographic development				4010	12889															
Antenna/RF and Modem Analysis and risk mitigation efforts				5068	15036															
HC3 requirements process/analysis				2768	5983	4184														
Small Business Innovative Research/Small Business Technology Transfer Program					976															
Total				11846	34884	4184														
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<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost															
0303142A D456-MILSATCOM Systems Engineering	25865	16160	28788	Continuing	Continuing															

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		May 2009
BUDGET ACTIVITY 7 - Operational system development	PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)	PROJECT 562
<u>C. Acquisition Strategy</u> A competitive high capacity communications capability Technology Development (TD) contract is being planned.		

ARMY RDT&E COST ANALYSIS (R3)										May 2009		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)						PROJECT 562		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
System Development	MIPR	MIT Lincoln Labs, Lexington MA	10445	2250	1Q	8326	1-2Q			Cont.	Cont.	
Pre-SDD Study Contracts	T&M	Raytheon, Marlborough, Mass and Boeing, Anaheim, Ca.	11071								11071	
Government Engineering Support	Various	PM WIN-T, Fort Monmouth, NJ	8615	2639	1-2Q	2849	1-2Q			Cont.	Cont.	
Risk Mitigation Efforts/Other Contracts	Various	Various	23187	1938	1-2Q	11434				Cont.	Cont.	
Engineering Services	Various	Various	343	550	1-2Q	1050	1-2Q				1943	
Subtotal:			53661	7377		23659				Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	N/A	Fort Monmouth, NJ	7443	1553	1-2Q	2181	1-2Q	750	1-2Q	Cont.	Cont.	
Requirement Services/Studies	Various	Various	406	1101	2Q	4324	1Q	2752	1-2Q	Cont.	Cont.	
Subtotal:			7849	2654		6505		3502		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering (In-House)	N/A	PM WIN-T, Fort Monmouth, NJ	494			541	1-2Q			Cont.	Cont.	
Subtotal:			494			541				Cont.	Cont.	

ARMY RDT&E COST ANALYSIS (R3)									May 2009			
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)						PROJECT 562		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Government Support	N/A	PM WIN-T, Fort Monmouth, NJ	5281	1815	1-2Q	4179	1-2Q	682	1-2Q	Cont.	Cont.	
Subtotal:			5281	1815		4179		682		Cont.	Cont.	
Project Total Cost:			67285	11846		34884		4184		Cont.	Cont.	

Schedule Profile (R4 Exhibit)																				May 2009												
BUDGET ACTIVITY 7 - Operational system development										PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)																		PROJECT 562				
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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				
Pre-Milestone A Activities/Risk Mitigation																																
High Capacity Communications Capability Studies																																

Schedule Detail (R4a Exhibit)							May 2009	
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0303142A - SATCOM Ground Environment (SPACE)				PROJECT 562	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
Pre-Milestone A Activities/Risk Mitigation	1Q - 4Q	1Q - 4Q	1Q - 4Q					
High Capacity Communications Capability Studies	1Q - 4Q	1Q - 4Q	1Q - 4Q					