ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**

	COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	38286	44647	72244	80999	53676	63593	108301	Continuing	Continuing
253	DSCS-DCS (PHASE II)	9519	13193	12219	13622	13669	14089	10947	Continuing	Continuing
384	SMART-T	16672	19028	17398	12173	916	0	0	0	103320
456	MILSATCOM SYSTEM ENGINEERING	5263	12426	42627	55204	39091	49504	83558	Continuing	Continuing
559	AUTO COM MGT SY (ACMS)	5854	0	0	0	0	0	0	0	19519
561	MIL INDIV COMM (MIC)	978	0	0	0	0	0	0	0	1948
562	MBAND INT SAT TERM MIST	0	0	0	0	0	0	13796	0	13942

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 Commanders-In-Chief (CINCs), 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) Fleet Satellite/Air Force Satellite (FLTSAT/AFSAT) system; the Super High Frequency (SHF) Defense Satellite Communications System (DSCS); the Extremely High Frequency (EHF) MILSTAR system; the UHF Follow-On Satellite system; the Automated Communications Management System (ACMS); the Joint Network Planning and Central Tool; the Military Individual Communicator (MIC); and all MIL-STD-1582C compatible payloads. As the lead service for MILSATCOM Ground Subsystems, the Army is responsible for developing and procuring satellite terminals, satellite control subsystems, communication subsystems, and all related equipment. This responsibility also includes maintaining the life cycle logistics support required to achieve end-to-end connectivity, satisfying JCS Command, Control, Communications, and Intelligence (C3I) in support of the President, JCS, CINCs, Military Departments, Department of State, and other government Departments and Agencies.

This program is designated as a DoD Space Program.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**

B. Program Change Summary	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002/03 PB)	42926	47647	51756
Appropriated Value	43229	44647	
Adjustments to Appropriated Value			
a. Congressional General Reductions			
b. SBIR / STTR	-1248		
c. Omnibus or Other Above Threshold Reductions			
d. Below Threshold Reprogramming			
e. Rescissions	-395		
Adjustments to Budget Years Since FY2002 PB	-3300		20488
Current Budget Submit (FY 2003 PB)	38286	44647	72244

FY03 increase of $20.488M in Project 456 (MILSATCOM System Engineering) for Network Management tools, Integrated Ka Band capability in SHF terminals, and System Engineering IAW the DoD Transformation Comm System (TCS) Study.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**	**253**

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
253 DSCS-DCS (PHASE II)	9519	13193	12219	13622	13669	14089	10947	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project provides funds to develop strategic and tactical Ground Subsystem equipment in support of Joint Chiefs of Staff (JCS) validated Command, Control, Communications and Intelligence (C3I) requirements for the worldwide Super High Frequency (SHF) Defense Satellite Communications System (DSCS) and the Wideband Gapfiller System (WGS) program. 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. This system supports the legacy transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 3246 Continued the DSCS Integrated Management System (DIMS)Software program
- 4935 Continued the Common Network Planning Software (CNPS) program
- 1338 Continued SATCOM Engineering Lab (SEL), PM Admin, and Systems Engineering Technical Assistance (SETA) efforts

Total 9519

FY 2002 Planned Program

- 3719 Continue the DIMS Interface Software program
- 5659 Continue the CNPS program
- 2281 Continue SEL, PM Admin, and SETA efforts
- 1534 Support of CNPS development for Wideband Gapfiller System

Total 13193

FY 2003 Planned Program

- 4668 Continue the DIMS Interface Software program
- 3659 Continue the CNPS program
- 2367 Continue SEL, PM Admin, and SETA efforts
- 1525 Support of CNPS development for Wideband Gapfiller System

Total 12219

B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
Defense Satellite Communications System (DSCS) Other Procurement	74296	99420	89806	99547	98092	56685	52834	Continuing	Continuing

C. Acquisition Strategy: The DSCS Integrated Management System (DIMS) and Common Network Planning Software (CNPS) programs will not have follow-on production programs. DIMS provides the capability to electronically disseminate network plans to the monitoring and controlling DSCS Operations Control System (DOCS) subsystems, and retrieve and display subsystem monitoring data. It also provides a comprehensive view of network operations at DSCS Operations Centers and DISA management sites. CNPS will plan strategic and Ground Mobile Forces (GMF) satellite communication networks for DSCS, Wideband Gapfiller, and commercial satellites. DIMS and CNPS will be installed at DSCS Operations Centers and DISA Management Sites at worldwide locations.

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
CNPS Critical Design Review (CDR)	1Q						
Complete CNPS Testing				1Q			
DIMS Version 4.0 Materiel Release	4Q						
Award Wideband Gapfiller/CNPS Mod		2Q					
DIMS Version 5.0 Software Testing - Beginning		4Q					
DIMS Version 5.0 Software Testing - Ending			2Q				
DIMS Version 5.0 Materiel Release			2Q				

D. Schedule Profile (continued)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
DIMS Version 5.1 Software Testing - Beginning			2Q				
DIMS Version 5.1 Software Testing - Ending			4Q				
DIMS Version 5.1 Materiel Release				1Q			
DIMS Version 6.0 Software Testing - Beginning					4Q		
DIMS Version 6.0 Software Testing - Ending						1Q	
DIMS Version 7.0 Software Testing-Beginning							1Q

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . DIMS Software	C / CPFF	JHU/APL, Laurel, MD	9904	2778	1Q	3446	2Q	4072	1-2Q	Continue	Continue	Continue
b . CNPS	C / FFP	Logicon, Winter Park, FL	3654	4230	2Q	6534	2Q	4408	1-2Q	Continue	Continue	Continue
Subtotal:			13558	7008		9980		8480		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Matrix Support	MIPR	Fort Monmouth, NJ	676	916	2Q	687	2Q	960	1-2Q	Continue	Continue	Continue
b . SETA Support	C / CPFF	Fort Monmouth, NJ	272	257	2Q	245	2Q	312	1-2Q	Continue	Continue	Continue
c . Engineering Support	C / CPFF	JHU/APL, Laurel, MD	100	0		0		100	1-2Q	Continue	Continue	Continue
d . Core Support	Various	Fort Monmouth, NJ	455	449	1-4Q	505	1-4Q	555	1-4Q	Continue	Continue	Continue
Subtotal:			1503	1622		1437		1927		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
253

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SEL	MIPR	Fort Monmouth, NJ	1816	328	2Q	1125	2Q	1125	1-2Q	Continue	Continue	Continue
Subtotal:			1816	328		1125		1125		Continue	Continue	Continue

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . PM Admin	Various	Fort Monmouth, NJ	1369	561	1-4Q	651	1-4Q	687	1-4Q	Continue	Continue	Continue
Subtotal:			1369	561		651		687		Continue	Continue	Continue

Project Total Cost:			18246	9519		13193		12219		Continue	Continue	Continue

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**	**384**

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
384 SMART-T	16672	19028	17398	12173	916	0	0	0	103320

A. Mission Description and Budget Item Justification: The Secure Mobile Anti-Jam Reliable Tactical Terminal (SMART-T) will provide a range extension capability for the Army's Mobile Subscriber Equipment (MSE) to support the Force Projection Army. Specifically, it will provide a satellite interface to permit uninterrupted communications as our advancing forces move beyond the line-of-sight capability of MSE. This equipment will communicate at both low and medium data rates (LDR/MDR) over the MILSTAR satellite constellation. It will also be compatible with the UHF Follow-On (UFO), the Navy Fleet SATCOM EHF satellite packages, and MIL-STD-1582C compatible payloads. It will provide the security, mobility, and anti-jam capability required to defeat the threat and satisfy the critical need. The SMART-T will also have Low Probability of Interception and Low Probability of Detection (LPI/LPD), avoiding targeting for destruction, jamming, or intercept. The prime mover will be a High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) configured with all the electronics and the self-erectable antenna. In order to maintain proficiency with the terminal, given limited satellite access for training, two new EHF payload simulators are under development for training at Fort Gordon and other RDTE activity sites. The SMART-T provides mobile anti-jam reliable communications for the warfighter. Program also includes an upgrade to the SMART-T terminals to attain AEHF capability for synchronization with the National Team Schedule. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 262 Completed Packet DAMA development efforts and continued payload specification change development
- 2706 Continued development of AEHF satellite payload simulators
- 13704 Continued AEHF development efforts

Total 16672

FY 2002 Planned Program

•	1000	Continue payload specification change development
•	2106	Continue development of AEHF satellite payload simulators
•	15922	Continue AEHF development efforts
Total	19028	

FY 2003 Planned Program

•	1245	Continue payload specification change development
•	5168	Continue development of AEHF payload simulators
•	10985	Continue AEHF development efforts
Total	17398	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**	**384**

B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
SMART-T Other Procurement	31561	21704	24467	31649	35134	20075	11708	Continuing	Continuing
Spares Other Procurement	4315	569	5914	1033	6489	0	2760	0	21080

C. Acquisition Strategy: The SMART-T program employed a competitive development strategy. The development phase included two contractors performing under cost type contracts. The contracts were awarded on 9 November 1992 to Raytheon Company (Marlborough, MA) and Rockwell International (Richardson, TX). Twelve Engineering Development Model (EDM) terminals (6 from each contractor) were developed under the two contracts. The streamlining features of this phase included a reliability growth plan to achieve the required levels by Follow-On Test and Evaluation (FOT&E). The Low Rate Initial Production (LRIP) and Full Rate Production (FRP) contract was competitively awarded to Raytheon Company on 7 February 1996. SMART-T Milestone C Decision was successfully completed Nov 98. Award of the first FRP Option occurred in Jan 99. The total terminals procured to date through the LRIP/FRP are 141 terminals (88 Army, 29 Air Force, and 24 Marines). Additional quantities will be procured to satisfy the Army, Joint Services and other DoD activities. The development of an AEHF capability for the SMART-T terminal began in FY00, and production will begin in FY06.

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
FOT&E	4Q						
IOC	4Q						
Continue AEHF Simulator Development	1-4Q	1-4Q	1-4Q	1-2Q			
Complete AEHF Simulator Development				3Q			
Continue AEHF Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
Complete AEHF Development					4Q		
Continue Payload Specification Change Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
Award Production AEHF Mod Contract						1Q	

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
384

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Dual Development Contracts	C / CPIF	Rockwell Richardson, TX / Raytheon Marlborough, MA	117173	0		0		0		0	117173	0
b . Baseline Mods	SS / CPFF	Raytheon Marlborough, MA	57733	12361	3Q	15699	2Q	11404	1Q	Continue	Continue	Continue
c . Govt Support	MIPR	Various	13139	602	1Q	601	1Q	257	1Q	Continue	Continue	Continue
d . GFE	MIPR	Various	149	0		0		0		0	149	0
Subtotal:			188194	12963		16300		11661		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Other Contracts	MIPR	Various	11290	0		0		0		0	11290	0
b . Core Support	N/A	PM MILSATCOM Ft. Monmouth, NJ	4752	426	1Q	177	1Q	193	1Q	Continue	Continue	Continue
c . Lab Activities	MIPR	Various	6206	700	1Q	445	1Q	376	1Q	Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
384

II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			22248	1126		622		569		Continue	Continue	Continue

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Simulator Development	MIPR	Lincoln Labs Lexington, MA	16160	2583	2Q	2106	2Q	5168	2Q	Continue	Continue	Continue
b . DT&OT Test Support	MIPR	Lincoln Labs Lexington, MA	6700	0		0		0		0	6700	0
c . Test Bed Development	MIPR	Lincoln Labs Lexington, MA	2980	0		0		0		0	2980	0
Subtotal:			25840	2583		2106		5168		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
384

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Tech Support of SMART-T Development	MIPR	Lincoln Labs Lexington, MA	7900	0		0		0		0	7900	0
Subtotal:			7900	0		0		0		0	7900	0
Project Total Cost:			244182	16672		19028		17398		Continue	Continue	Continue

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**	**456**

COST (In Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
456	MILSATCOM SYSTEM ENGINEERING	5263	12426	42627	55204	39091	49504	83558	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Army is responsible for developing, procuring, and maintaining the life cycle logistics support for satellite terminals, satellite control subsystems, communications subsystems, and all related equipment required to achieve end-to-end connectivity satisfying JCS Command, Control, Communications, and Intelligence (C3I) requirements. SATCOM assets also support the President, JCS, CINCs, Military Departments, Department of State, and other government Departments and Agencies. This project provides centralized funding for advanced systems engineering, analysis, research, development, test, and evaluation of new and emerging technologies, optimizing terminal performance and interoperability on the digitized battlefield. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 2098 Conducted various developmental efforts or analysis to provide enhanced terminal capability (Extremely High Frequency (EHF), Super High Frequency (SHF), Ultra High Frequency (UHF) and Commercial Bands)
- 1624 Continued Battlefield Digitization architecture efforts for III Corps/IBCT
- 1541 Advanced SATCOM architecture development and System Engineering Support (Advanced Extremely High Frequency (AEHF), Advanced Wideband (AWB) and Advanced Narrowband System/Mobile User Objective System (ANS/MUOS))

Total 5263

FY 2002 Planned Program

- 2100 Conduct various developmental efforts or analysis to provide enhanced terminal capability (EHF, SHF, UHF, and Commercial Bands)
- 1241 Continue Battlefield Digitization Architecture efforts for Army Digitization and Transformation
- 1615 Conduct development, integration and fielding of interim SATCOM networking management tools and support the AEHF Management Planning Element (AMPE) development process
- 2170 Advanced SATCOM architecture development and System Engineering Support (AEHF, AWB and ANS/MUOS)

FY 2002 Planned Program (Continued)

- 5300 Initiate Ka band augmentation development

Total 12426

FY 2003 Planned Program

- 3000 Conduct various developmental efforts or analysis to provide enhanced terminal capability (EHF, SHF, UHF and Commercial Bands)
- 2252 Continue Battlefield Digitation Architecture efforts for Army Digitation and Transformation
- 3492 Continue development, integration and fielding of interim SATCOM networking management tools and support the AEHF Management Planning Element (AMPE) development process
- 2795 Advanced SATCOM architecture development and System Engineering Support (AEHF, AWB and ANS/MUOS)
- 5000 System Engineering IAW the DoD Transformation Comm System (TCS) Study
- 15800 Continue development of SHF Ka band augmentation
- 9000 Initiate development of an integrated Ka band capability for Army SHF terminals
- 1288 ABCS System Engineering and Integration Efforts (SE&I)

Total 42627

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0303142A - SATCOM Ground Environment (SPACE)**	**456**

B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
SAT TERM, EMUT Other Procurement	16941	12640	2641	5154	3448	596	0	0	47939
MOD OF IN-SVC (TAC SAT) Other Procurement	1465	2472	11002	11530	9512	10387	10443	Continuing	Continuing
SHF TERM Other Procurement	7844	100	33166	36734	42635	52700	29266	Continuing	Continuing
SMART-T Other Procurement	31561	21704	24467	31649	35134	20075	11708	Continuing	Continuing

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 cognizant MILSATCOM programs.

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Comm-On-The-Move (COTM) UHF Terminal Integration with Tactical Internet	1-4Q	1-2Q					
Intersegment Launch Verification (Flight 4)	2Q						
Intersegment Post Launch Verification (Flight 5)		2Q					
Intersegment Post Launch Verification (Flight 6)			1Q				
Conduct Advanced EHF and Wideband System Engineering Support	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Initiate System Engineering IAW TCS Study			1Q				
Develop Army Tactical Terminals IAW DoD TCS Requirements			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Conduct Integration of SATCOM Systems into Digitized Architecture	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Ka Band Augmentation Development		1-4Q	1-4Q	1-4Q			
Ka Band Integration			1-4Q	1-4Q			
Initiate Ka Band Prototype Testing				2Q			
Development/Analysis for Enhanced Terminal Capability/Interoperability (EHF/SHF/UHF-Commercial Band	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

D. Schedule Profile (continued)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Development, Integration, Milstar Communications Planning Tool - Integrated (MCPT-I) and AMPE		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Terminal Upgrades	Various	Various	1524	0		0		0		0	1524	0
b . Ka Band Integration	Various	TBD	0	0		0		9000	2Q	Continue	Continue	Continue
c . Ka Band Augmentation	Various	TBD	0	0		5300	2Q	15800	2Q	Continue	Continue	Continue
d . Advanced Wideband	Various	TBD	0	0		0		5000	2Q	Continue	Continue	Continue
e . ABCS SE&I	TBD	TBS	0	0		0		1288	1Q	0	1288	0
Subtotal:			1524	0		5300		31088		Continue	Continue	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Engineering (In-House)	MIPR	Various	3034	1026	2Q	2839	2Q	2252	2Q	Continue	Continue	Continue
b . Engineering (Contract)	Various	Various	2810	1235	2Q	1600	2Q	3537	2Q	Continue	Continue	Continue
c . System Architecture & Analysis	Various	Mitre	0	0		900	2Q	1050	2Q	Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
456

II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			5844	2261		5339		6839		Continue	Continue	Continue

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Test Support	MIPR	Lincoln Labs, Lexington, MA	2050	619	2Q	0		500	1Q	0	3169	0
b . Test Support	Various	Various	1321	573	2Q	300	1Q	1800	2Q	Continue	Continue	Continue
Subtotal:			3371	1192		300		2300		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
456

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Advanced EHF & Architecture	MIPR	Lincoln Labs Lexington, MA	3393	1810	2Q	987	2Q	2400	2Q	Continue	Continue	Continue
b . Advanced Wideband System Architecture	MIPR	Various	0	0		500	2Q	0		0	500	0
Subtotal:			3393	1810		1487		2400		Continue	Continue	Continue
Project Total Cost:			14132	5263		12426		42627		Continue	Continue	Continue