

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

June 2001

BUDGET ACTIVITY

**7 - OPERATIONAL SYSTEMS DEV**

PE NUMBER AND TITLE

**0303142A - SATCOM Ground Environment**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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	34760	42926	47647	0	0	0	0	0	0	0
253 DSCS-DCS (PHASE II)	8676	9842	13193	0	0	0	0	0	0	0
384 SMART-T	13462	17168	19028	0	0	0	0	0	0	0
456 MILSATCOM SYSTEM ENGINEERING	6081	8875	15426	0	0	0	0	0	0	0
559 AUTO COM MGT SY (ACMS)	5601	6033	0	0	0	0	0	0	0	0
561 MIL INDIV COMM (MIC)	940	1008	0	0	0	0	0	0	0	0
562 MBAND INT SAT TERM MIST	0	0	0	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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.

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<u><b>B. Program Change Summary</b></u>	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	35958	43229	37087	0
Appropriated Value	36230	43229		
Adjustments to Appropriated Value				
a. Congressional General Reductions				
b. SBIR / STTR	-962			
c. Omnibus or Other Above Threshold Reductions	-148			
d. Below Threshold Reprogramming				
e. Rescissions	-124	-303		
Adjustments to Budget Years Since FY2001 PB		0	10554	
Current Budget Submit (FY 2002/2003 PB )	34996	42926	47641	0

FY02/03: Fund increases due to re-alignments based on critical Army priorities.

- D456 MILSATCOM System Engineering (FY02 \$4617K & FY03 \$10,578K)
- D384 SMART-T (FY02 \$4,068K & FY03 \$3,049K)
- D253 DSCS (FY02 \$1,869K & FY03 \$672K)

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

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BUDGET ACTIVITY <b>7 - OPERATIONAL SYSTEMS DEV</b>				PE NUMBER AND TITLE <b>0303142A - SATCOM Ground Environment</b>				PROJECT <b>253</b>		
COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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)	8676	9842	13193	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification:** Project D253 - DSCS-DCS Phase II: This project provides funds to develop strategic and tactical Ground Subsystem equipment in support of 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 2000 Accomplishments**

- 3001 Continue the DSCS Integrated Management System (DIMS) Interface Software program
- 4338 Continue the Common Network Planning Software (CNPS) program
- 1337 Continue Software Engineering Lab (SEL), PM Admin, and Systems Engineering Technical Assistance (SETA) efforts

Total 8676

**FY 2001 Planned Program**

- 3246 Continue the DIMS Interface Software program
- 4935 Continue the CNPS program
- 1385 Continue SEL, PM Admin, and SETA efforts
- 276 Small Business Innovative Research / Small Business Technology Transfer Program (SBIR/STTR)

Total 9842

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PROJECT  
**253**

**FY 2002 Planned Program**

- 3644 Continue the DIMS Interface Software program
  - 5759 Continue the CNPS program
  - 2290 Continue SEL, PM Admin, and SETA efforts
  - 1500 Support of CNPS development for Wideband Gapfiller System
- Total 13193

**B. Other Program Funding Summary**

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
OPA 2 - SSN: BB8500	68194	70837	99420	0	0	0	0	0	0	0

**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 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
CNPS Critical Design Review (CDR)		1Q		0	0	0	0	0
Complete CNPS Testing				0	0	0	0	0
DIMS Version 3.0 Software Testing	2Q			0	0	0	0	0
DIMS Version 4.0 Software Testing			1Q	0	0	0	0	0
DIMS Version 5.0 Software Testing - Beginning				0	0	0	0	0
DIMS Version 5.0 Software Testing - Ending				0	0	0	0	0
DIMS Version 6.0 Software Testing - Beginning				0	0	0	0	0
DIMS Version 6.0 Software Testing - Ending				0	0	0	0	0

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CNPS CDR and DIMS V3.0 Testing milestones are completed.

## ARMY RDT&E COST ANALYSIS(R-3)

**June 2001**

<b>BUDGET ACTIVITY</b> <b>7 - OPERATIONAL SYSTEMS DEV</b>	<b>PE NUMBER AND TITLE</b> <b>0303142A - SATCOM Ground Environment</b>	<b>PROJECT</b> <b>253</b>
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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	1-2Q	3119	1-2Q	0	0	0	0	0
b . CNPS	C / FFP	Logicon, Winter Park, FL	3654	4230	1-2Q	6434	1-2Q	0	0	0	0	0
<b>Subtotal:</b>			13558	7008		9553		0		0	0	0

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	1-2Q	950	1-2Q	0	0	0	0	0
b . SETA Support	C / CPFF	Fort Monmouth, NJ	272	257	1-2Q	300	1-2Q	0	0	0	0	0
c . Engineering Support	C / CPFF	JHU/APL, Laurel, MD	100	0		100	1-2Q	0	0	0	0	0
d . Core Support	Various	Fort Monmouth, NJ	455	449	1-4Q	505	1-4Q	0	0	0	0	0
<b>Subtotal:</b>			1503	1622		1855		0		0	0	0

# ARMY RDT&E COST ANALYSIS(R-3)

**June 2001**

BUDGET ACTIVITY

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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	1-2Q	1125	1-2Q	0	0	0	0	0
Subtotal:			1816	328		1125		0		0	0	0

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	1371	608	1-4Q	660	1-4Q	0	0	0	0	0
b . SBIR/STTR			0	276		0		0	0	0	0	0
Subtotal:			1371	884		660		0		0	0	0

<b>Project Total Cost:</b>			18248	9842		13193		0		0	0	0
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# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

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BUDGET ACTIVITY <b>7 - OPERATIONAL SYSTEMS DEV</b>				PE NUMBER AND TITLE <b>0303142A - SATCOM Ground Environment</b>				PROJECT <b>384</b>		
COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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	13462	17168	19028	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification:** Project D384 - SMART-T: 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 2000 Accomplishments**

- 4781 Complete development of Demand Assigned Multiple Access (DAMA) and continue development of Packet DAMA
- 3650 Begin EHF satellite payload simulator development efforts for new simulators
- 2731 Continued payload specification change development
- 1300 Operated interim EHF "lab configured" payload simulator at Fort Hood
- 1000 Began initial Advanced EHF (AEHF) component efforts

Total 13462

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## **FY 2001 Planned Program**

- 262 Complete Packet DAMA development efforts and continue payload specification change development
- 2706 Continue development of AEHF satellite payload simulators
- 13700 Continue AEHF development efforts
- 500 Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)

Total 17168

## **FY 2002 Planned Program**

- 2000 Continue payload specification change development
- 2984 Continue development of AEHF satellite payload simulators
- 14044 Continue AEHF development efforts

Total 19028

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<b>B. Other Program Funding Summary</b>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
Other Procurement Army 2 - SSN: BC 4002	924	31561	21704	0	0	0	0	0	0	0
Other Procurement Army 4 - SSN: BS 9720	0	5148	2569	0	0	0	0	0	0	0

**C. Acquisition Strategy:** The SMART-T program employed a competitive development strategy. The development phase included two contractors performing under Cost-Plus-Incentive-Fee (CPIF) 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 III 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 will result in production terminals in FY06.

<b>D. Schedule Profile</b>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
FOT&E		4Q		0	0	0	0	0
Complete Packet DAMA Development		2Q		0	0	0	0	0
IOC		2Q		0	0	0	0	0
Begin New EHF Simulator Development	2Q			0	0	0	0	0
Complete New EHF Simulator Development				0	0	0	0	0
Complete AEHF Development				0	0	0	0	0
Complete Payload Specification Change Development				0	0	0	0	0
Award Production Block Mod Contract				0	0	0	0	0

## ARMY RDT&E COST ANALYSIS(R-3)

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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	0	0	0
b . Baseline Mods	SS / CPAF	Raytheon Marlborough, MA	57733	12357	3Q	15118	2Q	0	0	0	0	0
c . Govt Support	MIPR	Various	13139	602	1Q	600	1Q	0	0	0	0	0
d . GFE	MIPR	Various	149	0		0		0	0	0	0	0
Subtotal:			188194	12959		15718		0		0	0	0
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	0	0	0
b . Core Support	N/A	PM MILSATCOM Ft. Monmouth, NJ	4752	426	1Q	400	1Q	0	0	0	0	0
c . Lab Activities	MIPR	Various	6206	700	1Q	600	1Q	0	0	0	0	0

## ARMY RDT&E COST ANALYSIS(R-3)

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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		1000		0		0	0	0

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	2310	2Q	0	0	0	0	0
b . DT&OT Test Support	MIPR	Lincoln Labs Lexington, MA	6700	0		0		0	0	0	0	0
c . Test Bed Development	MIPR	Lincoln Labs Lexington, MA	2980	0		0		0	0	0	0	0
Subtotal:			25840	2583		2310		0		0	0	0

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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	0	0	0
b . SBIR/STTR			0	500		0		0	0	0	0	0
Subtotal:			7900	500		0		0		0	0	0
Project Total Cost:			244182	17168		19028		0		0	0	0

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<b>BUDGET ACTIVITY</b> 7 - OPERATIONAL SYSTEMS DEV			<b>PE NUMBER AND TITLE</b> 0303142A - SATCOM Ground Environment					<b>PROJECT</b> 456		
COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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	6081	8875	15426	0	0	0	0	0	0	0

**A. Mission Description and Budget Item Justification:** Project D456 - MILSATCOM System Engineering: 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 2000 Accomplishments**

- 2074 Conducted various developmental efforts or analysis to provide enhanced terminal capability
  - 1632 Continued Battlefield Digitization architecture efforts for 4ID and III Corps/IBCT
  - 1200 Advanced SATCOM architecture development and System Engineering Support (Advanced EHF (AEHF) and Wideband Gapfiller System (WGS))
  - 964 AEHF waveform development
  - 211 Software modifications to support SATCOM-On-The-Move (SOTM) tactical internet interface
- Total 6081

**FY 2001 Planned Program**

- 2147 Conduct various developmental efforts or analysis to provide enhanced terminal capability (EHF, SHF, UHF and Commercial Bands)
- 1624 Continue Battlefield Digitization architecture efforts for III Corps/IBCT
- 1541 Advanced SATCOM architecture development and System Engineering Support (AEHF, AWB and ANS/MUOS)
- 3300 Initiate Ka Band development for Army Tactical terminals

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**456**

## FY 2001 Planned Program (Continued)

- 263 Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)

Total 8875

## FY 2002 Planned Program

- 1900 Conduct various developmental efforts or analysis to provide enhanced terminal capability (EHF, SHF, UHF, and Commercial Bands)
- 641 Continue Battlefield Digitization Architecture efforts for Army Digitization and Transformation
- 1415 Continue 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)
- 5300 Continue Ka Band development for Army Tactical terminals
- 4000 Test Support

Total 15426

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<b>B. Other Program Funding Summary</b>	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
Other Procurement Army 2 - SSN: K77200	6519	16945	12640	0	0	0	0	0	0	0
Other Procurement Army 2 - SSN: BB8417	498	1465	2492	0	0	0	0	0	0	0
Other Procurement Army 2 - SSN BA9350	15340	27743	16951	0	0	0	0	0	0	0
Other Procurement Army 2 - SSN BC4002	924	31561	21704	0	0	0	0	0	0	0

**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.

<b>D. Schedule Profile</b>	FY 2000	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	1-4Q	1-2Q	0	0	0	0	0
Intersegment Launch Verification (Flight 4)		2Q		0	0	0	0	0
Intersegment Post Launch Verification (Flight 5)			2Q	0	0	0	0	0
Intersegment Post Launch Verification (Flight 6)				0	0	0	0	0
Conduct Advanced EHF and Wideband System Engineering Support	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Conduct Integration of SATCOM Systems into Digitized Architecture	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Conduct System Testing			3-4Q	0	0	0	0	0
Initiate design of Ka Band into Army Tactical terminals		3Q		0	0	0	0	0
Initiate Ka Band Testing/Prototype				0	0	0	0	0
Initiate Ka Band Prototype Manufacturing				0	0	0	0	0
ABCS System Engineering Efforts Related to MILSATCOM	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Development/Analysis for Enhanced Terminal Capability/Interoperability (EHF/SHF/UHF-Commercial Band	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Development, Integration, Milstar Communications Planning Tool - Integrated (MCPT-I), ACMS and AMPE	1-4Q	1-4Q	1-4Q	0	0	0	0	0

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D. Schedule Profile (continued)

FY 2000 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007

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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	0	0	0
b . Ka Band Development	SS/CP	Raytheon Marlborough, MA	0	3300	3Q	5300	2Q	0	0	0	0	0
Subtotal:			1524	3300		5300		0		0	0	0

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	1075	2Q	2839	2Q	0	0	0	0	0
b . Engineering (Contract)	Various	Various	2810	1235	2Q	1100		0	0	0	0	0
c . System Architecture & Analysis	Various	Mitre	0	0		600		0	0	0	0	0
Subtotal:			5844	2310		4539		0		0	0	0

## ARMY RDT&E COST ANALYSIS(R-3)

**June 2001**

BUDGET ACTIVITY <b>7 - OPERATIONAL SYSTEMS DEV</b>				PE NUMBER AND TITLE <b>0303142A - SATCOM Ground Environment</b>						PROJECT <b>456</b>		
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		0	0	0	0	0
b . Test Support	Various	Various	1321	573		4600		0	0	0	0	0
Subtotal:			3371	1192		4600		0		0	0	0
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	0	0	0	0	0
b . SBIR/STTR			0	263		0		0	0	0	0	0
Subtotal:			3393	2073		987		0		0	0	0
Project Total Cost:			14132	8875		15426		0		0	0	0