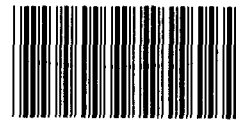


September 1992

1993 DOD BUDGET

Potential Reductions in Command, Control, and Communications Satellite Programs



147744



**National Security and
International Affairs Division**

B-249983

September 29, 1992

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

As you requested, we examined the Departments of the Army, Navy, and Air Force fiscal year 1993 budget requests and prior years' appropriations for selected command, control, and communications satellite programs. Our objective was to identify potential reductions to the fiscal year 1993 budget request and potential rescissions to prior year appropriations. We briefed your staffs in May and July 1992 on the results of our work.

Our review showed that schedule slippage and technical risks, together with cost, requirements, and program changes, have affected the program funding requirements for fiscal year 1993 as well as fiscal year 1992 appropriations. As shown in table 1, we identified \$120 million in potential reductions and rescissions for congressional consideration.

Table 1: Potential Reductions and Rescissions in Command, Control, and Communications Satellite Programs

Dollars in millions

Appropriation	Fiscal year	
	1992	1993
Other procurement, Army	\$20.0	\$24.4
Weapons procurement, Navy	.	70.1
Research, development, test, and evaluation, Air Force	5.5	.
Total	\$25.5	\$94.5

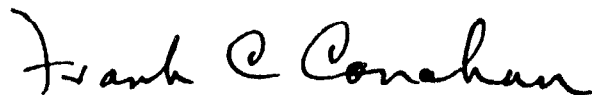
We focused on program cost, schedule, and performance issues and examined expenditure documents to determine if requests were adequately justified and whether prior years' unobligated funds should be retained. We also evaluated budgetary implications of program changes made as a result of threat changes identified by the Department of Defense. Appendixes I

through IV provide detailed information on potential reductions and rescissions. Appendix V provides information on our scope and methodology.

As requested by your offices, we did not obtain written agency comments on this report. However, we discussed the information in this report with program officials and incorporated their comments where appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 10 days from its issue date. At that time, we will send copies of this report to the Chairmen and Ranking Minority Members, Senate and House Committees on Appropriations and on Armed Services; the Secretaries of Defense, the Army, the Navy and the Air Force; the Director, Office of Management and Budget; and other interested parties.

This report was prepared under the direction of Louis J. Rodrigues, Director, Command, Control, Communications, and Intelligence Issues, who may be reached on (202) 275-4841 if you or your staffs have any questions. Other major contributors to this report are listed in appendix VI.



Frank C. Conahan
Assistant Comptroller General

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Abbreviations

DSP	Defense Support Program
FLTSATCOM	Fleet Satellite Communications
GCO	Ground Computer Change Out Program
LCT	Low Cost Terminal
SCOTT	Single Channel Objective Tactical Terminal
UHF	Ultra High Frequency

Summary of Potential Reductions and Rescissions in Selected Command, Control, and Communications Satellite Programs

Dollars in millions

Budget line item		Fiscal year			Basis for reduction or rescission
		1993	1992	1991	
Department of the Army					
Other Procurement, Army					
27	Single Channel Objective Tactical Terminal	\$24.4	•	•	Production of the Single Channel Objective Tactical Terminal has been terminated (pp.7-8).
Department of the Navy					
Weapons Procurement, Navy					
27	Arctic Satellite Communications Program	8.0	•	•	The Navy has identified a less costly alternative to provide UHF communications in the polar region (pp.9-10).
26	Fleet Satellite Communications Program	62.1	•	•	The 10th UHF follow-on satellite is not needed to provide additional backup coverage (pp.10-11).
Department of the Air Force					
Other Procurement, Air Force					
108	Defense Support Program-Computer Change Out Program	•	\$20.0	•	Contract option to purchase computer hardware was not exercised (pp.12-13).
Research, Development, Test, and Evaluation, Air Force					
77	Low Cost Terminal Program	•	5.5	•	Excess funding is budgeted for program risk (pp.13-14).
Total		\$94.5	\$25.5		

Potential Reductions in Army Command, Control, and Communications Satellite Programs

We identified \$24.4 million in potential reductions to the Army's fiscal year 1993 command, control, and communications satellite budget request. The following section provides a brief description of the Single Channel Objective Tactical Terminal (SCOTT), the results of our analysis, and potential reductions by appropriation.

Appropriation

Other Procurement, Army

Single Channel Objective Tactical Terminal

The SCOTT is one of three Milstar satellite communications terminals being developed by the Army. The SCOTT is a transportable terminal designed to provide highly survivable command and control communications.

Results of Analysis

The Army's fiscal year 1993 budget request of \$38.4 million for SCOTT can be reduced by \$24.4 million because the Army plans to cancel further acquisition. The remaining \$14 million is for support equipment for Air Force Command Post Terminals and is already under contract.

Following congressional direction, the Department of Defense restructured the Milstar satellite communications system to emphasize tactical needs and eliminate unnecessary nuclear war-fighting capabilities. As such, the Army plans to develop two new tactical terminals in lieu of fielding the SCOTT. Therefore, the Army plans to terminate acquisition of SCOTT.

Table II.1: SCOTT Budget and Potential Reduction

Budget line	Fiscal year		
	1993	1992	1991
27	\$38.4	\$17.9	•
Potential reduction	24.4	•	•

Potential Reductions in Navy Command, Control, and Communications Satellite Programs

We identified \$70.1 million in potential reductions to the Navy command, control, and communications satellite programs. The following section provides a brief description of the Arctic and Fleet Satellite Communications (FLTSATCOM) programs, results of our analysis, and potential reductions by appropriation.

Appropriation

Weapons Procurement, Navy

Arctic Satellite Communications

The Navy's fiscal year 1993 budget request includes \$17.5 million to buy a small, ultra high frequency (UHF) satellite and launch service. The arctic satellite communications program is a system of small satellites that will provide UHF satellite communications to users operating in the arctic region.

Results of Analysis

The Navy's fiscal year 1993 budget request of \$17.5 million for the arctic satellite communications program can be reduced by \$8 million because the Navy has restructured the program and selected a less costly alternative.

A Space and Naval Warfare Systems Command memorandum, dated April 14, 1992, states that satellite communications to submarines operating in the polar region could be satisfied by placing UHF communications packages on a host satellite. This alternative would cost an estimated \$14.5 million compared to \$32.2 million for the original arctic satellite system. The Navy estimates it will need \$9.5 million of the \$17.5 million requested in fiscal year 1993 to implement this alternative.

Table III.1: Arctic Satellite Communications Budget and Potential Reduction

Dollars in millions

Budget line	Fiscal year		
	1993	1992	1991
27	\$17.5	•	•
Potential reduction	8.0	•	•

Appropriation

Weapons Procurement, Navy

**Fleet Satellite
Communications
(FLTSATCOM)**

The Navy's fiscal year 1993 budget request includes \$325.983 million for the FLTSATCOM UHF follow-on program. The FLTSATCOM system consists of a constellation of orbiting satellites that provide worldwide UHF satellite communications capabilities for mobile users.

Currently, the FLTSATCOM system is comprised of four military and four leased satellites. The operational requirement for worldwide coverage is for an orbiting constellation of nine satellites—eight operating and one spare.

To date, the Navy has contracted for nine UHF follow-on satellites to replace the existing satellites in the FLTSATCOM system. The Navy plans to buy a 10th UHF follow-on satellite and has included \$62.1 million in its fiscal year 1993 budget request for a production contract and part of the launch service. This satellite would serve as an additional backup satellite.

Results of Analysis

The Navy's fiscal year 1993 budget request for the 10th UHF follow-on satellite and related launch services can be reduced by \$62.1 million because adequate backup capability exists in the event of a UHF follow-on satellite failure.

The Navy's requirement for eight operational satellites and a backup spare are provided by the nine satellites already on contract. The Navy wants the 10th satellite, which is not yet on contract, as additional backup. However, additional backup capability can be satisfied by existing FLTSATCOM, leased, and commercial satellites.

Two FLTSATCOM satellites launched in 1986 and 1989 could provide backup capability through the 1990s. In addition, a leased satellite with a 10-year design life was launched in 1990. The Navy has the option to purchase this satellite in 1995. Further, leased commercial satellites, which were effectively used during Operation Desert Shield/Storm, could provide additional backup capability, if needed.

**Appendix III
 Potential Reductions in Navy Command,
 Control, and Communications Satellite
 Programs**

**Table III.2: Fleet Satellite
 Communications Budget and Potential
 Reduction**

Dollars in millions

Budget line	Fiscal year		
	1993	1992	1991
26	\$325.983	\$283.080	\$244.400
Potential reduction	\$62.100	•	•

Potential Reductions and Rescissions in Air Force Command, Control, and Communications Satellite Programs

We identified \$25.5 million in potential reductions and/or rescissions to the Air Force command, control, and communications satellite programs. The following section provides a brief description of the Defense Support Program (DSP)/Ground Computer Change Out Program (GCO) and System I software programs and the low cost terminal (LCT), results of our analysis, and potential reductions by appropriation.

Appropriation	Other Procurement, Air Force
Defense Support Program/Ground Change Out Program	<p>DSP is a strategic surveillance and early warning satellite system with the primary mission of detecting ballistic missile launches. It is supported by a network of fixed and mobile ground stations that process and disseminate information to military commanders worldwide.</p> <p>The Air Force initiated the System I software and GCO programs to upgrade DSP ground stations, which currently consist of computer hardware installed in the early to mid-1980s.</p>

Results of Analysis	
	<p>The Air Force's fiscal year 1993 DSP budget request can be reduced by \$20 million, or the same amount can be rescinded from fiscal year 1992 appropriated funds. This reduction is possible because procurement of GCO computer hardware has been delayed due to software problems.</p> <p>According to DSP program officials, scheduled completion of System I software development has slipped about 18 months—from June 1993 until January 1995. As such, the Air Force has not exercised a contract option to purchase GCO computer hardware during fiscal year 1992. Therefore, \$20 million in fiscal year 1992 funds appropriated for the procurement of GCO hardware could be rescinded, or the fiscal year 1993 DSP budget request could be reduced by the same amount.</p>

Table IV.1: DSP Budget and Potential Reduction or Rescission

Budget line	Dollars in millions		
	Fiscal year		
	1993	1992	1991
108	\$57.123	\$51.297	\$62.756
Potential rescission	•	20.000	•

Appropriation

Research, Development, Test, and Evaluation, Air Force

Low Cost Terminal (LCT)

The Air Force had planned to acquire several hundred Milstar force element terminals to be used on B-1B aircraft and in ballistic missile launch control centers. However, as a result of Milstar program restructuring, the Air Force decided to stop developing the original force element terminal, and, instead, develop the redesigned LCT to further reduce size, weight, and cost.

Results of Analysis

The Air Force's fiscal year 1993 LCT budget request can be reduced by \$5.5 million, or the same amount can be rescinded from the fiscal year 1992 appropriation.

The Air Force planned to award contracts totaling \$60.8 million for development of the LCT. However, the contracts were awarded for only \$40.1 million, with \$2 million in additional funds allocated for negotiated options. According to LCT program officials, the remaining \$18.7 million is needed to cover program risk.

Based on Air Force documents, the LCT program includes a 30-percent cost factor to cover program risk. Thus, given a contract price of \$40.1 million, approximately \$12 million should have been budgeted for program risk. However, the Air Force budgeted \$18.7 million, or 47 percent of the contract price, for program risk—\$10.6 million in fiscal year 1992 and \$8.1 million in fiscal year 1993.

To date, the Air Force has spent \$5.1 million in fiscal year 1992 funds to cover cost increases associated with program risk. According to Air Force documents, the remaining \$5.5 million in fiscal year 1992 funds will be carried into fiscal year 1993, thereby making an additional \$13.6 million available for program risk.

Given a 30-percent risk factor, we believe the \$5.5 million in fiscal year 1992 appropriated funds should be rescinded or the fiscal year 1993 LCT budget request reduced by the same amount. Overall, this would provide the Air Force with a total of \$13.2 million—\$5.1 million spent in fiscal year 1992 and \$8.1 million budgeted in fiscal year 1993, or 33 percent of the contract price to cover program risk.

**Appendix IV
 Potential Reductions and Rescissions in Air
 Force Command, Control, and
 Communications Satellite Programs**

**Table IV.2: Mllstar Terminal Budget and
 Potential Reductions or Rescissions**

Dollars in millions

Budget line	Fiscal year		
	1993	1992	1991
77	\$1,261.9	\$1,039.6	\$710
Potential rescission	•	5.5	•

Scope and Methodology

We selected command, control, and communications satellite programs from three accounts for detailed review: Other Procurement, Army; Weapons Procurement, Navy; and Research, Development, Test, and Evaluation, Air Force. We interviewed responsible officials and examined program management and budget documents, system requirements, acquisition plans and schedules, and other program documents. We performed work at the Air Force Electronic Systems Division, Hanscom Air Force Base, Massachusetts; Air Force Space Systems Division, Los Angeles Air Force Base, California; Electronics Command, Fort Monmouth, New Jersey; and Navy Space and Naval Warfare Systems Command, Arlington, Virginia. We also contacted program representatives in the Office of the Secretary of Defense and the Departments of the Army, the Navy, and the Air Force.

We focused our initial efforts on identifying specific programs that might warrant further review for potential reductions or rescissions. We then placed emphasis on identifying potential reductions and rescissions based on changes in program cost, schedule, and performance.

We performed our review in accordance with generally accepted government auditing standards and have included information to July 1992.

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