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Washington, DC 20548

National Security and
International Affairs Division

B-282103

September 23, 1999

Congressional Committees

Subject: Fiscal Year 2000 Budget: DOD's Procurement and RDT&E Programs

The Department of Defense's (DOD) fiscal year 2000 budget request includes \$53 billion for weapon system procurement programs and \$34 billion for research, development, test, and evaluation (RDT&E) programs. As in the past, to assist you in your budget deliberations, we examined DOD's fiscal year 2000 budget request and prior years' appropriations for selected weapon system procurement and RDT&E programs. Our objectives were to identify potential reductions in the fiscal year 2000 budget request, potential rescissions to prior years' appropriations, and potential spending restrictions.

This letter summarizes and updates information provided to your staffs from April through July 1999. It does not reflect any adjustments such as rescissions of prior year funds or reductions to requested funding levels that may have been taken by the authorizing and appropriating committees during their reviews of the fiscal year 2000 defense budget request. We have not acknowledged these committees' actions because, in some cases, House and Senate actions have varied and conference actions are still pending.

In summary, we identified opportunities to reduce the aggregate fiscal year 2000 procurement and RDT&E requests by about \$966.9 million and to rescind prior years' total procurement and RDT&E appropriations by \$27.5 million. Based on the results of our ongoing program reviews and budget scrub review, we found these reductions and/or rescissions can be made because schedules have slipped, requirements have changed, and issues affecting program funding have emerged since the budget request was developed. The potential rescissions include \$21.1 million in prior years' appropriations for which obligational authority expires on September 30, 1999. In addition, we identified issues on several program funding requests that Congress may want to assure have been satisfactorily resolved before appropriated funds are spent. Such potential funding restrictions total \$301.9 million.

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GAO/NSIAD-99-233R 2000 Defense Budget

PROCUREMENT APPROPRIATIONS

As shown in table 1, we identified about \$756.3 million in potential reductions to DOD's fiscal year 2000 procurement budget request and about \$15.8 million in potential rescissions from DOD's prior years' procurement appropriations.

Table 1: Summary of Potential Reductions and Rescissions to Procurement Programs

Dollars in millions

	Potential fiscal year 2000 reduction	Potential prior year rescission
Army	\$309.322	\$5.000
Navy	163.645	1.292
Air Force	228.292	9.533
Defense-wide	55.002	0
Total	\$756.261	\$15.825

Of the \$15.8 million in potential rescissions from prior years' appropriations, \$9.5 million is from expiring fiscal year 1997 appropriations. Details regarding the potential reductions and rescissions to procurement programs are provided in appendix I.

We also identified \$86 million in potential spending restrictions that relate to procurement programs in DOD's fiscal year 2000 request. A discussion of the particulars related to these potential spending restrictions is provided in Appendix III.

RDT&E APPROPRIATIONS

As shown in table 2, we identified \$210.6 million in potential reductions to DOD's fiscal year 2000 RDT&E budget request and a potential rescission of \$11.7 million from DOD's fiscal year 1998 expiring RDT&E appropriations. The potential reductions include about \$14.5 million in the F-16 Squadrons line item that DOD has requested congressional approval to reprogram as part of the fiscal year 1999 DOD omnibus reprogramming request.

Table 2: Summary of Potential Reductions and Rescission to RDT&E Programs

Dollars in millions

	Potential fiscal year 2000 reduction	Potential prior year rescission
Army	\$72.107	0
Navy	37.925	0
Air Force	95.776	\$11.700
Defense-wide	4.800	0
Total	\$210.608	\$11.700

Details regarding these potential reductions and rescission are provided in appendix II.

In addition, we identified potential spending restrictions of \$215.9 million in the fiscal year 2000 request related to RDT&E programs. The particulars relating to these potential spending restriction are provided in appendix III.

AGENCY COMMENTS

DOD provided oral comments on a draft of this letter. In general, DOD agreed with the facts presented in the report but did not necessarily agree with the identified potential reductions, rescissions, and restrictions. In these instances, where DOD disagreed, it provided reasons for the disagreements. Where appropriate, we have revised the individual discussions of the potential reductions, rescissions, and restrictions in the report to reflect DOD’s disagreements.

SCOPE AND METHODOLOGY

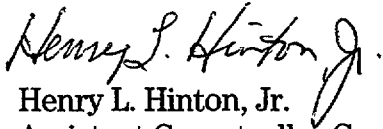
To identify potential reductions, rescissions, and restrictions, we focused on budget line items with unobligated funds and funds being withheld from the programs in addition to program cost, schedule, and performance issues. A budget line number is a designation of a specific program/system within the defense budget. We examined expenditure documents to determine whether requests were adequately justified and whether unobligated funds from prior appropriations should be retained. We obtained status updates from program officials, discussed issues identified, and obtained their positions on proposed reductions and/or rescissions. Appendix IV provides more information regarding our scope and methodology.



B-282103

We are sending copies of this report to the Honorable William S. Cohen, Secretary of Defense; the Honorable Louis Caldera, Secretary of the Army; the Honorable Richard Danzig, Secretary of the Navy; the Honorable F. W. Peters, Secretary of the Air Force, and Jacob J. Lew, Director of the Office of Management and Budget. We will also make copies available to others upon request.

This letter was prepared under the direction of Louis J. Rodrigues, Director, Defense Acquisitions Issues, who may be reached on (202) 512-4841. If you or your staffs have any questions concerning this report, please call James F. Wiggins, Associate Director, on (202) 512-4530. Key contributors to this assignment were Robert J. Stolba, Project Director, and Wanda M. Slagle, Project Manager.



Henry L. Hinton, Jr.
Assistant Comptroller General

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and RDT&E Programs**

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Abbreviations

DOD	Department of Defense
RDT&E	research, development, test, and evaluation

**POTENTIAL REDUCTIONS AND RESCISSIONS TO
PROCUREMENT PROGRAMS**

The Department of Defense (DOD) requested \$53 billion in procurement funding for fiscal year 2000. As shown in table I.1, our review of selected budget line items in the request and prior years' appropriations identified potential reductions of about \$756.3 million to the fiscal year 2000 request. We also identified potential rescissions of \$5 million from fiscal year 1998 appropriations, \$9.5 million from expiring fiscal year 1997 appropriations, and about \$1.3 million from a fiscal year 1989 appropriations with an extended obligational authority.

Table I.1 Potential Reductions and Rescissions to Procurement Programs

Dollars in millions

	Fiscal year 2000		Potential rescission		
	Request	Potential reduction	Fiscal year 1998	Fiscal year 1997	Fiscal year 1989
Army	\$9,738.400	\$309.322	\$5.000	0	0
Navy	21,986.700	163.645	0	0	\$1.292
Air Force	19,166.400	228.292	0	\$9.533	0
Defense-wide	2,129.000	55.002	0	0	0
Total	\$53,020.500	\$756.261	\$5.000	\$9.533	\$1.292

ARMY PROCUREMENT PROGRAMS

The Army requested \$9.7 billion for procurement programs in fiscal year 2000. As shown in table I.2, we identified potential reductions of \$309.3 million to the fiscal year 2000 request and a potential rescission of \$5 million from fiscal year 1998 appropriations.

Table I.2: Potential Reductions and Rescission to Army Procurement Programs

Dollars in millions

Procurement appropriations	Fiscal year 2000		Potential rescission
	Request	Potential reduction	Fiscal year 1998
Procurement (inflation adjustment)	\$9,738.400	\$49.000	0
Missile	1,358.100 ^a	162.600	0
Weapons and Tracked Combat Vehicles	1,416.800 ^a	3.000	\$5.000
Other	3,423.900 ^a	94.722	0
Total		\$309.322	\$5.000

^aThis amount is part of the Army's procurement request of \$9,738.4 million.

Procurement, Army

Inflation Adjustment

The Army's fiscal year 2000 procurement budget request of \$9.7 billion can be reduced by \$49 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these Army procurement funds, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$49 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Missile Procurement, Army

The Army requested \$1.4 billion for missile procurement programs in fiscal year 2000. As shown in table I.3, we identified potential reductions of \$162.6 million to the fiscal year 2000 request.

Table I.3: Potential Reductions to Army Missile Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
3	Hellfire System Summary	\$296.500	\$4.100
5	Javelin (AAWS-M) System Summary	307.700	57.000
6	Javelin (AAWS-M) System Summary Advance Procurement	98.400	98.400
11	Army Tactical Missile System (ATACMS)	95.600	3.100
Total			\$162.600

Hellfire System Summary (Line 3)

The Army's fiscal year 2000 budget request of \$296.5 million for the Hellfire system can be reduced by \$4.1 million because an equivalent amount of prior year funds is available to meet fiscal year 2000 program requirements. These fiscal year 1998 funds are available as a result of the Army's favorable contract negotiations for the Longbow Hellfire missiles, containers, tooling, and environmental covers. Program officials said that the \$4.1 million is needed to offset prior congressional reductions and to supplement engineering services and acceptance testing. They maintain that a \$4.1 million reduction would have a significant impact on their ability to execute the current program. However, the Army did not consider the need to supplement engineering services and acceptance testing of sufficient priority to include them in the fiscal year 2000 budget request. Therefore, since the \$4.1 million in fiscal year 1998 funds is not needed to buy the fiscal year 1998 missiles, these funds can be used to offset the fiscal year 2000 budget request.

Javelin (AAWS-M) System Summary (Line 5)

The Army's fiscal year 2000 budget request of \$307.7 million for the Javelin can be reduced by \$57 million if the procurement quantity is restricted to the program's minimum sustaining rate until uncertainty about the accuracy of the total requirement calculation is resolved.

The Army has procured 8,068 missiles through fiscal year 1999 and has a total missile requirement of 24,403. However, the Army reports it has recently lowered its procurement objective to 20,793. The number of weapons needed is determined through

the capabilities based munitions requirement process. A review of the Army's latest published capabilities based munitions requirement process model results shows a minimal amount of the requirement is actually based on threat. Uncertainty factors, reserves, and training account for the remaining portion of the figure. DOD recently completed its review of the process, and the results are being incorporated into the Army's Antiarmor Master Plan. Currently, the services are in the process of updating their input into the fiscal year 2000 capabilities based munitions requirement report. The preliminary results show that they may have a greater need for Javelin. However, we believe that if the new results show a higher Javelin requirement, it would also have to show increased amounts of uncertainty, reserves, and training unless it takes targets from the Army's other weapons because the overall number of targets is decreasing.

According to program officials, the Javelin's mission is to support early entry forces. The number of mobile armored targets being assigned to the Army's early entry forces has been reduced since the last calculation. Also, the number of mobile armored targets assigned to the Army in the early phase of the conflict was reduced by over 10 percent in one theater and almost 60 percent in the other. These changes would further reduce the Javelin requirement.

Given the uncertainty related to the total Javelin missile requirement, the number of missiles procured can be limited to 1,320 missiles, the program's minimum sustaining rate. The Army's fiscal year 2000 budget request includes \$307.7 million to procure Javelin missiles and their associated training equipment. Of this amount, \$161.3 million is to procure 2,682 missiles. Excluding the economic order quantity benefits included in the fiscal year 1999 price, we estimated the cost of 1,320 missiles to be about \$104.3 million, \$57 million less than requested. Army program officials do not believe that the missiles can be purchased for \$79,000 each—the price we estimated if the buy is cut to the minimum rate. However, they did not know what the price of the missiles would be.

The program office objected to the reduction based on its impact on the average unit cost of the missile. DOD said that in addition to increasing the average unit cost, the reduction would delay National Guard fieldings and has the potential of negatively affecting foreign military sales of the antitank weapon system. While the reduction would probably increase unit cost, DOD and the Army did not provide documentation on the potential impact on fielding and foreign military sales. If, however, the Army continues with its acquisition plans without validating the impact of threat on requirements, it will commit itself to a \$1.6 billion, 5-year multiyear procurement. Therefore, we continue to believe that until the Javelin requirement is validated, the level of procurement can be maintained at the minimum rate. If the Javelin procurement is restricted to the minimum sustaining rate, the fiscal year 2000 budget request can be reduced by \$57 million.

**JAVELIN (AAWS-M) System Summary Advance
Procurement (Line 6)**

The Army's fiscal year 2000 budget request of \$98.4 million for Javelin advance procurement can be denied because awarding the multiyear contract is premature and the accuracy of the total requirement calculation is questionable.

The Army's fiscal year 2000 budget request includes \$98.4 million to procure economic order quantities of Javelin parts to support the planned fiscal years 2001 through 2004 procurement of missiles and related equipment, such as command launch units. However, we believe that the award of this multiyear contract is premature because, as discussed in the previous Javelin line item, there are uncertainties. The multiyear contract would commit future funds for Javelin parts procurement before DOD completes its ongoing review of the adequacy of the requirements determination process.

The Army has procured 8,086 missiles and 1,159 launch units through fiscal year 1999 and has a total requirement of 24,403 missiles. However, the Army reports it has recently lowered its procurement objective to 20,793. In the proposed 5-year multiyear contract, the Army plans to procure 16,335 missiles and related equipment such as 2,791 command launch units. According to program officials, the fiscal year 2000 funding request for Javelin missiles is not dependent on this planned fiscal year 2000 economic order quantity buy of Javelin parts. DOD's disagreement with the potential reduction and our rebuttal are included in the previous discussion of the Javelin System Summary. We continue to believe that the \$98.4 million budget request for the multiyear procurement can be denied.

**Army Tactical Missile System (ATACMS) - System
Summary (Line 11)**

The Army's fiscal year 2000 budget request of \$95.6 million for the Army Tactical Missile System can be reduced by \$3.1 million because an equivalent amount of prior year funds is available to meet fiscal year 2000 program requirements.

The Army's fiscal year 1999 budget request included \$68.1 million to procure 96 missile systems. The contractor's December 1998 firm fixed-price proposal contained a not to exceed amount of \$65 million, which is \$3.1 million less than the originally budgeted amount. Contract negotiations were completed, and the contract was awarded on June 30, 1999, for \$64.9 million, which is below the not to exceed amount.

Army program officials said that they plan to use the \$3.1 million for anticipated engineering change orders for motor rework and a thermal unit design improvement.

Since the Army does not plan to use the \$3.1 million in fiscal year 1999 funds to procure missile systems, these funds can be used to offset the fiscal year 2000 budget request.

Procurement of Weapons and Tracked Combat Vehicles, Army

The Army requested \$1.4 billion for weapons and tracked combat vehicles procurement programs in fiscal year 2000. As shown in table I.4, we identified a \$3 million potential reduction to the fiscal year 2000 request and a potential rescission of \$5 million in the fiscal year 1998 appropriations.

Table I.4: Potential Reduction and Rescission to Army Procurement of Weapons and Tracked Combat Vehicles Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000		Potential rescission
		Request	Potential reduction	Fiscal year 1998
12	Carrier, MOD (Modification)	\$53.500	0	\$5.000
21	M1 Abrams Tank Modification	29.800	\$3.000	0
Total			\$3.000	\$5.000

Carrier, MOD (Modification) (Line 12)

The Army's fiscal year 1998 appropriations for the Carrier Modification can be rescinded by \$5 million because funds will not be used for the purpose appropriated.

DOD is withholding the \$5 million that the Congress added to the program in fiscal year 1998 to conduct an armor tile study. DOD plans to reprogram these procurement funds to RDT&E to conduct the study. Program officials stated that the funds are not needed because the Army does not have a requirement for armor tiles. Further, they said that even if the funds were reprogrammed to research, development, test, and evaluation (RDT&E) and a firm requirement was determined, the program could not be executed before the RDT&E funds would expire. Since the \$5 million in fiscal year 1998 funds is not being used for the armor tile study, these funds can be rescinded if they are not reprogrammed.

M1 Abrams Tank Modification (Line 21)

The Army's fiscal year 2000 budget request of \$29.8 million for the M1 Abrams Tank Modification Program can be reduced by \$3 million because an equivalent amount of prior year funds is available to meet fiscal year 2000 program requirements.

DOD is withholding \$3 million the Congress added to the Army's fiscal year 1999 appropriations to initiate work on a Cordless Vehicle Intercom System for the Abrams Tanks. The system, according a program official, is designed to be used like a cordless telephone for communicating when one or more of the soldiers that operate the tank are outside of the tank. He said that he did not think the funds would be released to the program for the intercom system but that the program office would like to use the funds for another purpose if they are released.

Since these funds are not being used for the intercom system, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Other Procurement, Army

The Army requested \$3.4 billion for other procurement programs in fiscal year 2000. As shown in table I.5, we identified potential reductions of \$94.7 million to the fiscal year 2000 request.

Table I.5: Potential Reductions to Army Other Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
1	Tactical Trailers/Dolly Sets	\$15.277	\$5.444
91	Digitization Applique	66.400	66.400
110	Maneuver Control System (MCS)	52.049	22.878
Total			\$94.722

Tactical Trailers/Dolly Sets (Line 1)

The Army's fiscal year 2000 budget request of \$15.277 million for Tactical Trailers/Dolly Sets can be reduced by \$5.444 million because fiscal year 2000 program requirements are overstated.

The Army's fiscal year 2000 budget request for Tactical Trailers/Dolly Sets includes \$5.444 million to fund the first year of a follow-on multiyear contract to produce the High Mobility Trailer. The contract award has been delayed from March 2000 to the second quarter of fiscal year 2001 because of technical problems. Therefore, these funds are not required for the contract during fiscal year 2000 and can be denied.

The project manager for Light Tactical Vehicles does not agree with this proposed reduction because the Army, in recognition of the High Mobility Trailer Program delays, has eliminated the program's fiscal year 2001 funding, making the fiscal year 2000 funds necessary for system upgrades and for funding the first year of the multiyear contract. He believes that reducing the fiscal year 2000 funding in addition to the Army's action will cripple efforts to resolve technical problems that prevent the fielding of the trailers and will further delay the follow-on procurement. We believe that the funds should be requested in the year they will be obligated and that the funding for the follow-on contract should be included in the fiscal year 2001 budget request, the year in which the Army currently plans to award the contract. Since these requested funds will not be used in fiscal year 2000 to procure the trailers, the fiscal year 2000 budget request can be reduced by \$5.444 million.

Digitization Applique (Line 91)

The Army's fiscal year 2000 budget request of \$66.4 million for Digitization Applique can be denied because initial operational test and evaluation has been delayed 2 years and the Army's revised acquisition strategy for low-rate initial production does not appear justified.

The Army intended to use the fiscal year 2000 budget request to begin procurement of the Force XXI Battle Command, Brigade, and Below system and to provide for total fielding to the first digitized division, the Army's 4th Infantry Division. Originally, the system schedule included an initial operational test and evaluation in October 1999, a full-rate production decision about January 2000, and completed fielding to the 4th Infantry Division by September 2000. As a result of issues raised by the DOD Director, Operational Test and Evaluation, the system testing program was restructured, resulting in a revised initial operational test and evaluation date of November 2001. Although initial operational testing has been delayed 2 years, the Army wants to proceed with the fiscal year 2000 procurement as the start of a low-rate initial production acquisition phase that will last 3 years. Low-rate initial production units will be acquired at a rate of 1,700 per year, for a total of 5,100 units.

DOD and the Army officials stated that limited production of test quantities would not provide adequate quantities to prove out dual production lines or address training, sparing concepts, maintenance, technical manual development, collective training,

logistics support plans, and doctrine development. In addition, the officials stated that none of the procured systems were configured appropriately for the initial operational test and evaluation. However, as noted in our report,¹ we remain concerned that equipping an entire division with low-rate initial production units is excessive prior to completing operational testing. We continue to be equally concerned that the Army is adding unnecessary risk to an already aggressive digitization schedule and may field unproven systems beyond the first division.

DOD Regulation 5000.2R states that low-rate initial production quantities shall be minimized. The regulation states that the objective of low-rate initial production is to produce the minimum quantity necessary to (1) provide production configured or representative articles for operational tests, (2) establish an initial production base for the system, and (3) permit an orderly increase in the production rate for the system. The Army stated in the December 1998 system evaluation plan that it needed 600 systems for the initial operational test and evaluation. The Army received appropriations in fiscal years 1998 and 1999 to support the originally planned initial operational test and evaluation in October 1999. The funding appears to have been sufficient to acquire 300 systems with the newest configuration, upgrade about 220 existing systems, and develop software for an additional 80 systems; therefore, the Army should still be able to do the initial operational test and evaluation with the recently acquired and upgraded systems.

As the principal command and control system for the Army, the Battle Command, Brigade, and Below is the linchpin of the future digital battlefield. The revised acquisition strategy of fielding such a critical system before completing operational testing exposes the overall digitization initiative to unnecessary risk. If the risk materializes into performance problems, costly fixes to fielded systems may be required. We continue to believe that it is premature to acquire additional systems before determining operational effectiveness and suitability; therefore, the \$66.4 million fiscal year budget request can be denied.

Maneuver Control System (MCS) (Line 110)

The Army's fiscal year 2000 budget request of \$52.049 million for the Maneuver Control System can be reduced by \$22.878 million because fiscal year 2000 program requirements are overstated by \$21.7 million, and \$1.178 million of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. The Army does not plan to fully proceed with the planned acquisitions under this budget line, and the planned fiscal year 1999 equipment buy will not occur.

¹ Battlefield Automation: Performance Uncertainties Are Likely When Army Fields Its First Digitized Division (GAO/NSIAD-99-150, July 27, 1999).

Based on a June 1998 initial operational test and evaluation of the system, the DOD Director of Operational Test and Evaluation found the system “not yet operationally effective or operationally suitable.” Consequently, the Army is not seeking full-rate production approval at this time. Program officials stated that the Army no longer needs \$21.7 million of the fiscal year 2000 procurement funds budgeted and will be requesting that they be applied elsewhere. The Army planned to use the remaining funds within the program to acquire computers for use in tests, including the next initial operational test and evaluation that is scheduled for the summer of 2001 but is also considering buying the computers with RDT&E funds. In addition, the Army is not seeking a full-rate production decision at this time and does not plan to buy the 46 computers that were part of its fiscal year 1999 planned buy. A program official indicated that they plan to use the remaining \$1.178 million in unobligated 1999 funds for other Maneuver Control System related costs.

Since the system is not ready to begin full-rate production and these funds will not be used to buy computers, the fiscal year 2000 budget request can be reduced by at least \$21.7 million and \$1.178 million in fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

NAVY PROCUREMENT PROGRAMS

The Navy requested \$22 billion for procurement programs in fiscal year 2000. As shown in table I.6, we identified potential reductions of \$163.6 million to the fiscal year 2000 request. We also identified a potential rescission of about \$1.3 million in a program whose fiscal year 1989 appropriations obligational authority had been extended.

Table I.6: Potential Reductions and Rescission to Navy Procurement Programs

Dollars in millions

Procurement Appropriations	Fiscal year 2000		Potential rescission
	Request	Potential reduction	Fiscal year 1989
Procurement (inflation adjustment)	\$21,986.700	\$120.000	0
Weapons	1,357.400 ^a	43.645	0
Shipbuilding and Conversion	6,678.500 ^a	0	\$1.292
Total		\$163.645	\$1.292

^aThis amount is part of the Navy’s procurement request of \$21,986.7 million.

Procurement, Navy

Inflation Adjustment

The Navy’s fiscal year 2000 procurement budget request of \$22 billion can be reduced by \$120 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these Navy procurement funds, including \$5 million from the procurement, Marine Corps appropriations account, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$120 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Weapons Procurement, Navy

The Navy requested \$1.4 billion for weapons procurement programs in fiscal year 2000. As shown in table I.7, we identified a potential reduction of \$43.6 million in the fiscal year 2000 request.

Table I.7: Potential Reduction to Navy Weapons Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
9	Standard Missile	\$198.867	\$43.645
Total			\$43.645

Standard Missile (Line 9)

The Navy’s fiscal year 2000 budget request of \$198.867 million for the Standard Missile can be reduced by \$43.645 million because fiscal year 2000 requirements are overstated due to delays in the program schedule.

The Navy’s fiscal year 2000 budget request for the Standard Missile includes \$43.645 million for the Standard Missile-2, Block IVA interceptor missile which is to be used by the Navy Area Theater Ballistic Missile Defense Program.² The Navy intends to fund 16 Block IVA interceptor missiles for the first year of low-rate initial production for

² The Ballistic Missile Defense Organization and the Navy share funding for the missile. A potential reduction in the Ballistic Missile Defense Program budget request is discussed on pages 30-31.

the Navy Area program. However, there have been delays in the Area program's schedule, caused by several reasons, including difficulties in upgrading the Navy's Aegis Weapon System. Because of these delays, low-rate initial production is not expected to be approved until March 2001. Furthermore, the delays have postponed the completion of developmental tests and operational assessments at White Sands Missile Range until fiscal year 2001. Thus, any missiles purchased before fiscal year 2001 would be purchased without the benefit of realistic testing.

Navy officials told us that the \$43.645 million is needed in fiscal year 2000 because the Navy must contract for major components of the Block IVA missile in March 2000 in order to provide an early prototype system for use in contingencies and to avoid costly breaks in Standard Missile production. We note, however, that this plan would commit the Navy to producing major missile components after only two non intercept missile flight tests using interceptor missiles that are not the same configuration as the planned production missiles. The Navy plans to approve fabrication of the complete missiles in March 2001 after two successful intercept tests.

In its 1998 independent review of the program's test plans, a panel of military and civilian officials concluded that two successful flight tests are not likely to provide enough information to establish confidence in a usable operational capability.³ According to this study, the Block IVA missile must perform a far more complex mission than that demanded of any previous version of the Standard Missile. While delaying the start of Block IVA missile production until fiscal year 2001 could result in a gap in production of some missile components, the cost to fix components already produced could exceed restart costs if subsequent tests reveal problems.

DOD disagreed with the potential reduction, stating that it would further delay and disrupt the current acquisition strategy because this funding is needed to procure long lead materials for missile fabrication in fiscal year 2001. Also, DOD says that without such funding, a gap will be created in the Standard Missile, Block IVA production line that could result in a \$30 to \$40 million cost impact. As noted above, the long lead procurement decision would be made prior to any intercept flight tests and the fabrication decision would be made based on only two flight tests, which one independent study has deemed inadequate. Thus, we are concerned about the procurement of a total of 23 missiles, including the Ballistic Missile Defense Organization 7 missile buy (see pp. 30-31), without realistic testing. If these missiles, which cost over \$2 million each, must be modified based on subsequent operational testing, modification costs could exceed the cost impact of a production line gap. Therefore, we continue to believe that the fiscal year 2000 budget request can be reduced by \$43.645 million.

³ Report of Navy Area Defense Independent Review Group, 1998.

Shipbuilding and Conversion, Navy

The Navy requested \$6.7 billion for Shipbuilding and Conversion programs in fiscal year 2000. As shown in table I.8, we identified a potential rescission of about \$1.3 million from the fiscal year 1989 appropriations.

Table I.8: Potential Rescission to Navy Shipbuilding and Conversion Procurement Program

Dollars in millions

Line no.	Line item description	Fiscal year 2000	Potential rescission
		Request	Fiscal year 1989 ^a
17	LCAC Landing Craft	0	\$1.292
Total			\$1.292

^aThe fiscal year 1989 appropriations obligational authority was extended.

LCAC Landing Craft (Line 17)

The Navy’s fiscal year 1989 appropriations for the LCAC Landing Craft, for which the obligational authority was extended, can be rescinded by \$1.292 million because the funds exceed program requirements.

Navy program officials said that the \$1.292 million in fiscal year 1989 funds appropriated for the procurement of the Landing Craft is not needed to meet program requirements. Of this amount, \$1.256 million has been returned to the Navy comptroller. DOD does not concur with this potential rescission because the funds have been identified as a funding source on the Navy 1999 Ship Cost Adjustment for the LHD-17.

Since the \$1.292 million will not be used for the LCAC, the fiscal year 1989 appropriations can be rescinded if the funds are not approved for transfer.

AIR FORCE PROCUREMENT PROGRAMS

The Air Force requested \$19.2 billion for procurement programs in fiscal year 2000. As shown in table I.9, we identified potential reductions of about \$228.3 million to the fiscal year 2000 request and a potential rescission of \$9.5 million from fiscal year 1997 appropriations.

Table I.9: Potential Reductions and Rescission to Air Force Procurement Programs

Dollars in millions

Procurement Appropriations	Fiscal year 2000		Potential rescission
	Request	Potential reduction	Fiscal year 1997
Procurement (inflation adjustment)	\$19,166.400	\$70.860	0
Aircraft	9,302.100 ^a	115.034	\$9.533
Missile	2,359.600 ^a	42.398	0
Total		\$228.292	\$9.533

^a This amount is part of the Air Force's procurement request of \$19,166.4 million.

Procurement, Air Force

Inflation Adjustment

The Air Force's fiscal year 2000 procurement budget request of \$19.2 billion can be reduced by \$70.86 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these Air Force procurement funds, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$70.86 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Aircraft Procurement, Air Force

The Air Force requested \$9.3 billion for aircraft procurement in fiscal year 2000. As shown in table I.10, we identified potential reductions of \$115 million and a potential rescission of \$9.5 million from the expiring fiscal year 1997 appropriations.

Table I.10: Potential Reductions and Rescission to Air Force Aircraft Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000		Potential rescission
		Request	Potential reduction	Fiscal year 1997
5	F-22 Raptor Advance Procurement	\$277.100	\$65.100	0
9	C-17 (Multiyear Procurement)	3,080.100	46.400	\$9.533
32	F-15 (Modification)	263.490	0.967	0
33	F-16	249.536	2.567	0
Total			\$115.034	\$9.533

F-22 Raptor Advance Procurement (Line 5)

The Air Force's fiscal year 2000 budget request of \$277.1 million for the F-22 Raptor Advance Procurement can be reduced by \$65.1 million by maintaining the F-22 production rate in fiscal year 2001 at six aircraft per year until manufacturing and cost problems are resolved and delayed structural and avionics testing are accomplished, as previously planned by the Air Force.

The contractor has experienced problems manufacturing wings and for F-22s during the engineering and manufacturing development phase of the program. In March 1999⁴, we reported about manufacturing problems with the large titanium castings that attach the wing to the aircraft's body and the aft fuselage (the rear aircraft body section). The wing manufacturing problems, according to DOD, were recently resolved, however, the problems are resulting in longer than expected assembly times, work being done out of sequence and at locations other than planned, and delayed deliveries of wing and test aircraft.

In April 1999, the Air Force discovered a structural strength problem with a section of the aft fuselage that could cause a buckling of the section under certain flight conditions. Repairs to the engineering and manufacturing development flight test aircraft took 2 to 3 weeks. Flight tests were limited until the repairs were completed in June 1999. Repairs still need to be accomplished on the two structural test articles and the production representative test vehicles for which a contract was awarded in December 1998. Redesigned components are to be installed on all production aircraft. The Air

⁴ F-22 Aircraft: Issues in Achieving Engineering and Manufacturing Development Goals (GAO/NSIAD-95-55, Mar. 15, 1999).

Force estimated the cost to correct this problem at \$4.8 million to \$7.2 million for the engineering and manufacturing development program and will attempt to formulate cost reduction initiatives to offset these cost increases. Production cost increases related to the redesign of the aft fuselage section is estimated to range from \$900,000 to \$1.3 million. Until manufacturing problems are fully resolved, we believe increasing the production rate is inappropriate.

F-22 costs have exceeded budgets since the engineering and manufacturing development phase began in 1991 and have continued to exceed budgets after an Air Force study in 1997 recommended adding about \$1.5 billion to this phase of the program. In October 1998, the Air Force projected that engineering and manufacturing development costs could exceed budgets by another \$667 million, mainly because of problems associated with producing engineering and manufacturing development aircraft and developing avionics. While the Air Force said that they have identified ways to offset these cost increases,⁵ they expect costs to exceed budgets through the end of fiscal year 1999. In addition, the Air Force recently identified an additional \$93 million to \$126 million of potential engineering and manufacturing development cost increases, but maintains it also has plans to offset these increases. However, we continue to believe that until F-22 costs are more stable and predictable, it may be premature to increase the production.

Because of delays in the engineering and manufacturing development program, the Air Force has reduced or delayed the structural and avionics testing. The Air Force had planned to accomplish the testing prior to awarding advance procurement contracts to initiate an increase in the production rate. For example, tests of the F-22 structure (static and fatigue tests), have been delayed until after advance procurement begins. Further, no flight testing of an F-22 equipped with integrated avionics is planned prior to advance procurement, as it had been before. The Office of the Secretary of Defense's Director of Operational Test and Evaluation, in March 1999 testimony before the AirLand Forces Subcommittee of the Senate Armed Services Committee, noted concern that a commitment to increase production rates will be made without any integrated avionics testing in F-22 flight test aircraft.

The Air Force requested fiscal year 2000 advance procurement funds to support an increase in F-22 production from 6 aircraft in fiscal year 2000 to 10 aircraft in fiscal year 2001. Air Force officials told us DOD will conduct a production readiness review prior to a December 1999 contract award to ensure critical processes are mature enough to meet production goals. F-22 program officials are also meeting regularly with officials

⁵ The reported offsets include deferring external weapon testing, reassessing the flight test effort required for the AIM-9X missile and the helmet targeting system, reducing contractor laboratory cost and other government costs, and implementing Lockheed Martin cost reduction plans.

from the Office of the Under Secretary of Defense (Acquisition and Technology) to maintain continued emphasis on executing the program within the congressional cost caps.

DOD and Air Force maintain that reducing production lot sizes from those planned would void an aircraft pricing agreement between the government and the prime contractor for the initial F-22 production lots. DOD did not agree with the potential reduction maintaining that a reduction in production quantity for fiscal year 2001 will increase costs and preclude delivery of the currently planned 339 aircraft within the congressionally mandated production cap of \$39.8 billion.

We recognize that changes in the approved production plan would require adjusting the pricing agreement. The pricing agreement allows for adjusting target prices to account for production lot quantity changes that were not reasonably foreseeable when the prices were originally established. If adjustments are made to this pricing agreement in accordance with our recommendation to reduce the fiscal year 2001 production quantity from 10 to 6 aircraft, the cost of the production program could increase. This possibility should be weighed against the potentially negative results of buying increased quantities of production aircraft before manufacturing and cost problems are resolved. We believe it is premature to increase the procurement of F-22 aircraft until the manufacturing and cost performance problems are resolved and delayed structural and avionics testing is accomplished, as previously planned by the Air Force. If procurement is maintained at six aircraft for fiscal year 2001, the fiscal year 2000 budget request for advance procurement can be reduced by \$65.1 million.

C-17 (Multiyear Procurement) (Line 9)

The Air Force's fiscal year 2000 budget request of \$3.1 billion for multiyear procurement for the C-17 can be reduced by \$46.4 million because the fiscal year 2000 program requirements are overstated by \$10 million, and \$36.4 million in fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The negotiated price of the fiscal year 2000 C-17 purchase was \$10 million less than estimated in the fiscal year 2000 budget request. Program office officials said they plan to use the \$10 million for C-17 peculiar support equipment in fiscal year 2000. However, funding for this equipment was not of sufficient priority to be included in the President's fiscal year 2000 budget request. If the Air Force needs the support equipment for the C-17, it should be justified through the budget process. Therefore, we continue to believe that the fiscal year 2000 budget request can be reduced by \$10 million.

In addition, the Air Force is withholding \$7.3 million for other Air Force programs, and it planned to reprogram \$29.1 million of fiscal year 1999 funds as part of the fiscal year

1999 DOD omnibus reprogramming request. However, the \$29.1 million is not included in the omnibus reprogramming request. Since the \$36.4 million in fiscal year 1999 funds will not be used for the C-17 program, these funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

Also, the Air Force's fiscal year 1997 appropriations for the C-17 can be rescinded by \$9.533 million because these expiring funds are not needed for contractor logistics support. Due to favorable negotiations for contractor logistics support, the program office deobligated these funds, and it plans to use these funds to upgrade the aircraft maintenance systems trainers. Since the \$9.533 million will expire if not obligated by September 30, 1999, it is available for reprogramming or rescission during the remainder of fiscal year 1999.

F-15 (Modification) (Line 32)

The Air Force's fiscal year 2000 budget request of \$263.49 million for F-15 modifications can be reduced by \$0.967 million because the fiscal year 2000 program requirements are overstated.

Favorable F-15 modification contract negotiations in fiscal year 1999 for the (1) super convective shroud, (2) high pressure turbine case, and (3) first brush seal modifications kits resulted in Air Force revised estimates totaling \$967,000 less than requested. Program officials agreed that these requested funds are excess to their needs for these three modifications in fiscal year 2000 and stated that the Air Force plans to reprogram these funds for higher Air Force priorities. DOD agreed with the Air Force plans to use the funds on higher priorities. If the Air Force needs funding for higher priority programs, they should request such funding.

Since the fiscal year 2000 funding requirement for F-15 modifications has decreased, the fiscal year 2000 budget request can be reduced by \$0.967 million.

F-16 (Line 33)

The Air Force's fiscal year 2000 budget request of \$249.536 million can be reduced by \$2.567 million because fiscal year 2000 program requirements are overstated. The overstatement is the result of revised Air Force cost estimates.

After submitting its budget request for fiscal year 2000, the Air Force reduced the estimated unit cost of the equipment it plans to buy for four of the modifications by \$1.054 million for engine controls, \$0.675 million for countermeasures set, \$0.559 million for flare/chaff dispenser, and \$0.279 million for engine upgrades. Program officials said that they plan to use the excess fiscal year 2000 funds for other F-16 modifications.

However, funding for these modifications was not of sufficient priority to be included in the President's fiscal year 2000 budget request. Since these funds are not needed for the above mentioned modifications, the fiscal year 2000 budget request can be reduced by \$2.567 million.

Missile Procurement, Air Force

The Air Force requested \$2.4 billion for missile procurement programs in fiscal year 2000. As shown in table I.11, we identified potential reductions of about \$42.4 million.

Table I.11: Potential Reductions to Air Force Missile Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
13	Minuteman III Modifications	243.000	\$4.900
22	NAVSTAR Global Positioning System	139.000	3.100
23	NAVSTAR Global Positioning System (Space) Advance Procurement	31.798	31.798
31	Medium Launch Vehicles (Space)	64.800	2.600
Total			\$42.398

Minuteman III Modifications (Line 13)

The Air Force's fiscal year 2000 budget request of \$243 million for the Minuteman III Propulsion Replacement Program can be reduced by \$4.9 million because fiscal year 2000 program requirements are overstated.

Program officials could not provide documentation supporting the need for \$4.9 million of the \$11.8 million requested for program risk in fiscal year 2000. In July 1993, the Under Secretary of Defense waived the requirements for developmental test and evaluation prior to beginning low-rate initial production because the program was assessed to have minimal technical risk. Program officials contend the funds may be needed for anticipated Office of the Secretary of Defense and Office of the Secretary of Air Force funding reductions. However, according to DOD budget guidance, the services are not allowed to request funding to offset possible budget reductions. Therefore, requirements are overstated, and the fiscal year 2000 budget request can be reduced by \$4.9 million.

NAVSTAR Global Positioning System (Line 22)

The Air Force's fiscal year 2000 budget request of \$139 million for the NAVSTAR Global Positioning System Program can be reduced by \$3.1 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. According to program officials, the Air Force is withholding the \$3.1 million as a source of funding for the Defense Support Program. Since the \$3.1 million will not be used for the program, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

**NAVSTAR Global Positioning System (Space)
Advance Procurement (Line 23)**

The Air Force's fiscal year 2000 budget request of \$31.798 million for NAVSTAR Global Position System advance procurement for three Block IIF satellites—7 through 9—can be denied because fiscal year 2000 program requirements are overstated. The in-orbit Block IIA satellites are predicted to last an average 2 years longer than previously estimated, which affects the need to initiate advance procurement of these Block IIF satellites in fiscal year 2000.

In October 1997, the predicted life of Block IIA satellites was increased by 2.45 years, and the Air Force delayed the advance procurement of Block IIF satellites 7 through 9 by 1 year. Because the predicted life of Block IIA satellites has now been increased by an additional 2 years, it is reasonable to expect that the advance procurement can be delayed by at least 1 year.

A reduction of advance procurement funding should not affect acceleration of the modernization program, if DOD decided to do so. DOD is considering program acceleration, in conjunction with addressing constellation sustainment and modernization requirements that would modify 12 Block IIR satellites and/or modernize Block IIF satellites 1 through 6. Most Block IIR satellites are in storage awaiting launch, and Block IIF satellites 1 through 6 are under a production contract

According to program officials, the elimination of advance procurement funds will delay the satellite system modernization program. They emphasized that satellites 7 through 9 are being designed to (1) begin countering an evolving military threat that places the satellite signal at risk and (2) meet a vice presidential announcement for a new safety of life signal for the civilian aviation community. They also stated that the elimination of advance procurement funds would result in a break in the vendor-manufacturing base, resulting in potential life-cycle cost increases to the satellites. However, they did not provide any supporting evidence for this assertion. In addition, they stated that

hardware failures associated with the secondary nuclear detonation detection mission are not reflected in a satellite life analysis.

Air Force Space Command officials commented that it is inappropriate to decide the future of the satellite program based solely on the increased predicted life of the Block IIA satellites. However, until program officials complete an analysis of these hardware failures, the effect on satellite launches is not known. DOD said that the increase in Block IIA mean mission duration does allow a 1-year delay in Block IIF procurement; but, the total funding requested is still required to continue modernization of Global Positioning System satellites and ground control. However, these funds were requested for advance procurement, not modernization. Therefore, we continue to believe that, since the satellite buy can be delayed based on the estimated extended life of the in-orbit satellites, the \$31.798 million fiscal year 2000 budget request for advance procurement can be denied.

Medium Launch Vehicles (Space) (Line 31)

The Air Force's fiscal year 2000 budget request of \$64.8 million for the Medium Launch Vehicle program can be reduced by \$2.6 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The Air Force budgeted \$5 million for launch services for the Global Positioning System Block IIR satellite in fiscal year 1999. According to program officials, \$2.6 million is no longer needed because of delays associated with damage to the satellite. Further, they said they requested funding for planned launch service requirements in fiscal year 2000. Since the \$2.6 million will not be used to launch the satellite, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

DEFENSE-WIDE PROCUREMENT PROGRAMS

DOD requested \$2.1 billion for Defense-wide procurement programs in fiscal year 2000. As shown in table I.12, we identified a potential reduction of \$55 million to the fiscal year 2000 request.

Table I.12 Potential Reduction to Defense-wide Procurement Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
30	Navy Area Theater Ballistic Missile Defense (TBMD) Program	\$55.002	\$55.002
Total			\$55.002

Procurement, Defense-wide

Navy Area Theater Ballistic Missile Defense (TBMD) Program (Line 30)

The Ballistic Missile Defense Organization’s fiscal year 2000 budget request of \$55.002 million for the Navy Area Theater Ballistic Missile Defense Program can be denied because fiscal year 2000 program requirements are overstated due to a delay in the program schedule.

The fiscal year 2000 budget request includes \$34.584 million for seven Standard Missile-2, Block IVA interceptor missiles for the first year of low-rate initial production for the Navy Area Theater Ballistic Missile Defense Program. It also includes \$20.418 million to modify the Aegis Weapon System to perform a theater ballistic missile defense mission. The Organization is buying seven interceptor missiles for the Navy Area program. However, delays in the Navy Area Program’s schedule have occurred, as discussed on pages 19 and 20. Thus, any missiles purchased prior to fiscal year 2001 would be purchased without the benefit of realistic testing.

Agency officials claim that in order to provide an early prototype system for use in contingencies, and to avoid costly breaks in Standard Missile production, the Organization must contract for major components of the Block IVA missile in March 2000. We note, however, that this action would commit to production of major missile components after only two non intercept missile flight tests using interceptor missiles that are not the same configuration as the planned production missiles. The Navy plans to approve fabrication of the complete missiles in March 2001 after two successful intercepts.

In its 1998 independent review of the program’s test plans, a panel of military and civilian officials concluded that two successful flight tests are not likely to provide enough

information to establish confidence in a usable operational capability.⁶ According to this study, the Block IVA missile must perform a far more complex mission than that demanded of any previous version of the Standard Missile. The study also pointed out that there are significant risks in developing the Aegis Weapon System software to be used in the Navy Area program. To date, the software schedule has been extended by 18 months and, according to the study, the software may have to be reduced in scope to meet even the current schedule. While delaying the start of Block IVA missile production until fiscal year 2001 could result in a gap in production of some missile components, the cost to fix components already produced could exceed restart costs if subsequent tests reveal problems.

DOD disagreed with the potential reduction, stating that it would further delay and disrupt the current acquisition strategy because the funding is needed to procure long lead materials for missile fabrication in fiscal year 2001. Also, DOD says that without such funding, a gap will be created in the Standard Missile, Block IVA production line that could result in a \$30 to \$40 million cost impact. As noted above, the long lead procurement decision would be made prior to any intercept flight tests and the fabrication decision would be made based on only two flight tests, which one independent study has deemed inadequate. Thus, we are concerned about the procurement of a total of 23 missiles, including the Navy's 16 missile buy, without realistic testing. If these missiles, which cost over \$2 million each, must be modified based on subsequent operational testing, modification costs could exceed the cost impact of a production line gap. Therefore, we continue to believe that the fiscal year 2000 budget request can be reduced by \$55.002 million.

⁶ Report of Navy Area Defense Independent Review Group, 1998.

**POTENTIAL REDUCTIONS AND RESCISSION TO RESEARCH,
DEVELOPMENT, TEST, AND EVALUATION PROGRAMS**

DOD requested \$34.1 billion for RDT&E programs in fiscal year 2000. As shown in table II.1, our review of selected budget line items in the request and prior years' appropriations identified potential reductions of \$210.6 million to fiscal year 2000 requests and a potential rescission of \$11.7 million from fiscal year 1998 expiring appropriations

Table II.1: Potential Reductions and Rescission to RDT&E Programs

Dollars in millions

RDT&E appropriations	Fiscal year 2000		Potential rescission
	Request	Potential reduction	Fiscal year 1998
Army	\$4,426.194	\$72.107	0
Navy	7,984.016	37.925	0
Air Force	13,077.829	95.776	\$11.700
Defense-wide	8,609.289	4.816	0
Total	\$34,097.328	\$210.624	\$11.700

ARMY RDT&E PROGRAMS

The Army requested \$4.4 billion for RDT&E programs in fiscal year 2000. As shown in table II.2, we identified potential reductions of \$72.1 million to the fiscal year 2000 request.

Table II.2: Potential Reductions to Army RDT&E Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
	RDT&E (inflation adjustment)	\$4,426.194	\$20.000
49	Line-of-Sight Technology Demonstration	41.619 ^a	41.619
94	Combat Feeding, Clothing, and Equipment	110.829 ^a	6.900
112	Landmine Warfare/Barrier-Engineering Development	40.916 ^a	2.988
159	Force Twenty-One (XXI) Warfighting Rapid Acquisition Program	55.921 ^a	0.600
Total			\$72.107

^a This amount is part of the Army's RDT&E request of \$4,426.2 million.

Inflation Adjustment

The Army's fiscal year 2000 RDT&E budget request of \$4.4 billion can be reduced by \$20 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these Army RDT&E funds, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$20 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Line-of-Sight Technology Demonstration (Line 49)

The Army's fiscal year 2000 budget request of \$41.619 million for the Line-of-Sight Technology demonstration can be denied. According to the Advanced Concept Technology Demonstration management plan, the objective of this technology is to develop an antiarmor weapon that will increase lethality capability of the Army's early entry forces. Currently, the Army's early entry forces use the Javelin and the Dragon against armored targets. However, as discussed on page 12, the number of mobile armored target projected to be faced by the Army's early entry force has been reduced since the last requirement was calculated.

During our ongoing review of antiarmor requirements, we determined that a very small percentage of the Army's requirement for antiarmor weapons in inventory or production is actually based on threat. Uncertainty factors, reserves, and training account for the

largest portion of these requirements. These requirements are determined through the capabilities based munitions requirement process that DOD is reviewing to determine its adequacy in supporting requirements. In addition, the number of mobile armored targets assigned to the Army's early entry forces was reduced over 10 percent in one theater and almost 60 percent in the other.

According to program officials, the technology demonstration will evaluate whether the Line-of-Sight antitank weapon system will provide overwhelming lethality and reduce vulnerability for early entry forces. They consider this technology to be an essential element of future Army systems to be used with early entry forces. While this may be a promising technology, our review of antiarmor requirements shows that for the Army's early entry force targets, threat is not a significant factor in its computation and the number of targets has decreased. Therefore, the need for a new Army early entry force antiarmor weapon is questionable.

The program office representatives did not offer any evidence to the contrary. Therefore, given the uncertainty related to the Army's requirement process and the decreased number of armored targets assigned to the Army's early entry forces, we believe that the Army's \$41.619 million fiscal year 2000 budget request can be denied.

Combat Feeding, Clothing, and Equipment (Line 94)

The Army's fiscal year 2000 budget request of \$110.829 million for Combat Feeding, Clothing, and Equipment includes \$86.6 million for Land Warrior, of which \$6.9 million can be denied.

The Land Warrior program entered engineering and manufacturing development in January 1996. The Army has been revising its acquisition plan since August 1998 because of development production delays and the Army has postponed production. The Army's fiscal year 2000 budget request does not reflect the current program restructure plan that is being reviewed, including revised funding requirements.

According to program officials, under the current restructure plan, \$6.9 million is available because tasks that have been deferred can be further deferred. Therefore, the \$6.9 million can be reduced from the fiscal year 2000 request.

Landmine Warfare/Barrier – Engineering Development (Line 112)

The Army's fiscal year 2000 budget request of \$40.916 million for Landmine Warfare/Barrier – Engineering Development can be reduced by \$2.988 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The Army's fiscal year 1999 appropriations include \$14.830 million to continue the development of the Explosive Standoff Minefield Clearer. After obligating \$8,000 of these funds, the Army terminated the minefield clearer project, reprogrammed \$6.334 million of the project funds to other programs, and transferred \$5.5 million to another project within the same program element. The remaining \$2.988 million is available for reduction.

An Army program official agreed that the \$2.988 million is available for reduction since the Army does not plan to use these fiscal year 1999 funds to continue developing the Explosive Standoff Minefield Clearer, the purpose for which it was appropriated. Therefore, the \$2.988 million in prior year funds can be used to offset the fiscal year 2000 budget request.

Force Twenty-One (XXI) Warfighting Rapid Acquisition Program (Line 159)

The Army's fiscal year 2000 budget request of \$55.921 million for the Force Twenty-One Warfighting Rapid Acquisition Program can be reduced by \$600,000 because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 requirements.

The Rifle-Launched Entry Munition Program is one of the fiscal year 1999/2000 Force Twenty-One Warfighting Rapid Acquisition Program initiatives. The munition program's fiscal year 1999 appropriations includes \$600,000 to acquire 468 munition rounds for fielding. However, the munition will not be ready for fielding until fiscal year 2001 because further testing must be done before the munition can be Type Classified. Type Classification, required of all munitions prior to fielding to ensure safety and effectiveness, is not scheduled until late fiscal year 2000.

Although the Army's Operational Test and Evaluation Command generally supports the initiative, it does not support the need for the 468 rounds because the Army has not proven that the munition will perform as expected. According to the Command, more testing is needed, including testing associated with Type Classification, before the Army accumulates an inventory in the field. In addition, the Command noted that the program requirement does not identify specific measures of effectiveness, such as "hit probabilities," to be achieved prior to fielding.

According to a program official, the munition system acquisition would not be harmed by the proposed funding reduction. Since the munition system is not ready for fielding, the \$600,000 in fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

NAVY RDT&E PROGRAMS

The Navy requested \$8 billion for RDT&E programs in fiscal year 2000. As shown in table II.3, we identified a potential reduction of \$37.9 million to the fiscal year 2000 request.

Table II.3: Potential Reduction to Navy RDT&E Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
	RDT&E (inflation adjustment)	\$7,984.016	\$37.925
Total			\$37.925

Inflation Adjustment

The Navy’s fiscal year 2000 RDT&E budget request of \$8 billion can be reduced by \$37.925 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these funds, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$37.925 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

AIR FORCE RDT&E PROGRAMS

The Air Force requested \$13.1 billion for RDT&E programs in fiscal year 2000. As shown in table II.4, we identified potential reductions of about \$95.8 million to the fiscal year 2000 request and a potential rescission of \$11.7 million from expiring fiscal year 1998 appropriations.

Table II.4: Potential Reductions and Rescission to Air Force RDT&E Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000		Potential rescission
		Request	Potential reduction	Fiscal year 1998
	RDT&E (inflation adjustment)	\$13,077.829	\$51.926	0
52	Wideband MILSATCOM (Space)	53.344 ^a	5.300	0
70	Space Based Infrared System (SBIRS) High – Engineering and Manufacturing Development	328.653 ^a	3.500	0
91	Intercontinental Ballistic Missile Engineering and Manufacturing Development	38.804 ^a	0	\$11.700
128	F-16 Squadrons	112.520 ^a	15.000	0
168	Defense Satellite Communication System (Space)	8.985 ^a	2.500	0
179	Satellite Control Network (Space)	61.918 ^a	10.300	0
191	NAVSTAR Global Positioning System (User Equipment)	53.963 ^a	4.050	0
208	C-17 Aircraft	170.718 ^a	3.200	0
Total			\$95.776	\$11.700

^a This amount is part of the Air Force's RDT&E request of \$13,077.8 million.

Inflation Adjustment

The Air Force's fiscal year 2000 RDT&E budget request of \$13.1 billion can be reduced by \$51.926 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements. DOD is withholding these Air Force RDT&E funds, identified as inflation savings. Since the actual fiscal year 1999 inflation rates are lower than previously forecast, \$51.926 million of the fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Wideband MILSATCOM (Space) (Line 52)

The Air Force's fiscal year 2000 budget request of \$53.344 million for the Wideband MILSATCOM can be reduced by \$5.3 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The Air Force planned to buy 68 Global Broadcast Service receiver suites in fiscal year 1999, funded under this line item. Program officials told us that they recently deferred the purchase of some of these receiver suites until later years, resulting in \$5.3 million being excess to fiscal year 1999 program requirements.

Since the \$5.3 million will not be used to buy the receiver suites, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget if they are not reprogrammed.

Space Based Infrared System (SBIRS) High – Engineering and Manufacturing Development (Line 70)

The Air Force's fiscal year 2000 budget request of \$328.653 million for the Space Based Infrared System High program can be reduced by \$3.5 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

These funds were provided for the integration of the Space Based Atmospheric Burst Reporting Sensor. However, the Intelligence Program Review Group has deferred its decision on the sensor until fiscal year 2002. As a result, DOD is withholding these funds.

Since the \$3.5 million will not be used for the sensor, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request.

Intercontinental Ballistic Missile Engineering and Manufacturing Development (Line 91)

The Air Force's fiscal year 1998 funding for the Guidance Replacement Program, within the Intercontinental Ballistic Missile line, can be rescinded by \$11.7 million because the obligational authority will expire on September 30, 1999.

In fiscal year 1998, \$13.9 million was appropriated for the Guidance Replacement Program to preserve the option to configure the missiles with the Peacekeeper MK 21 reentry vehicle and an advanced inertial measurement unit. In December 1998, the Air Force was allowed to use a portion of these funds for a trade study to determine the best approach to preserve the option. The trade study was submitted to the Congress on August 18, 1999. Use of the remaining \$11.7 million is restricted until the Air Force establishes a plan to sustain the option and notifies the defense committees.

DOD did not concur with this potential rescission because it said the Air Force has a plan to spend the remaining funds as the Congress requested. It said that the Air Force is ready to award the contract following the 30-day congressional notification. However, if

the Congress does not agree with the trade study recommendations, the expiring \$11.7 million in fiscal year 1998 funds is available for reprogramming or rescission during the remainder of fiscal year 1999.

F-16 Squadrons (Line 128)

The Air Force's fiscal year 2000 budget request of \$112.52 million for the F-16 Squadrons can be reduced by \$15 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The Air Force's fiscal year 1999 appropriations included \$15 million to define a service life extension program and capability enhancement package for F-16A/B aircraft. The Air Force does not plan to define this life extension program or the capability enhancement package. The Air Force is withholding \$514,000, and the remaining \$14.486 million of the fiscal year 1999 funds is included in the fiscal year 1999 DOD omnibus reprogramming request to provide funds for the F-16 C/D advance procurement. DOD did not agree with the potential reduction because it believes the Congress will approve the proposed reprogramming.

Since the \$15 million will not be used for the F-16 service life extension program and the capability enhancement package, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

Defense Satellite Communication System (Space) (Line 168)

The Air Force's fiscal year 2000 budget request of \$8.985 million for the Defense Satellite Communication System program can be reduced by \$2.5 million because an equivalent amount of fiscal year 1999 funds is available to meet the fiscal year 2000 program requirements.

According to program officials, delays in integrating two satellites with the Evolved Expendable Launch Vehicle resulted in the program having a total of \$5.9 million in excess fiscal year 1999 funds. These officials told us \$3.4 million was transferred to the Military Satellite Communications Terminals program. They said the remaining \$2.5 million is expected to be part of the fiscal year 1999 DOD omnibus reprogramming request.

The \$2.5 million is not included in the omnibus reprogramming request and will not be used for the satellite program; therefore, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

Satellite Control Network (Space) (Line 179)

The Air Force's fiscal year 2000 budget request of \$61.918 million for the Satellite Control Network can be reduced by \$10.3 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

These funds were identified as available for the fiscal year 2000 DOD omnibus reprogramming request. The funds were appropriated in fiscal year 1999 for the Operational Switch Replacement, Archival Wide Area Network Interface Units, and Range and Communications Development efforts. According to program officials, the funds are available because of reduced program requirements and favorable contract negotiations.

The \$10.3 million is not included in the omnibus reprogramming request and will not be used for these development efforts; therefore, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

**NAVSTAR Global Positioning System
(User Equipment) (Line 191)**

The Air Force's fiscal year 2000 budget request of \$53.963 million for Global Positioning System user equipment can be reduced by \$4.05 million because fiscal year 2000 program requirements are overstated.

The Air Force requested \$4.5 million to continue technology demonstration efforts for the Navigation Warfare Advanced Concept Technology Demonstration Protection Program during fiscal year 2000. However, the protection program approved by the Under Secretary of Defense for Advanced Technology in July 1998 only requires \$0.450 million for technology demonstrations, or \$4.05 million less than the amount requested. Joint Program Office officials agreed that \$4.05 million was not required to support the approved protection program. They explained that this amount is needed to fund technology demonstrations in fiscal years 2000 and 2001 that are not included in the approved Advanced Concept Technology Demonstration. They further stated that a reduction in funding could delay deployment of these planned critical technologies. These officials, however, could not identify specific technology demonstrations that would be funded during this period.

Because these funds are not required for the protection program, the \$4.05 million can be reduced from the fiscal year 2000 budget request.

C-17 Aircraft (Line 208)

The Air Force’s fiscal year 2000 budget request of \$170.718 million for the C-17 aircraft can be reduced by \$3.2 million because an equivalent amount of fiscal year 1999 funds is available to meet fiscal year 2000 program requirements.

The Air Force is withholding \$1.7 million to use for other Air Force programs and planned to reprogram \$1.5 million of fiscal year 1999 funds as part of the fiscal year 1999 DOD omnibus reprogramming request. However, the funds are not included in the omnibus reprogramming request.

Since the \$3.2 million will not be used for the C-17 program, these fiscal year 1999 funds can be used to offset the fiscal year 2000 budget request if they are not reprogrammed.

DEFENSE-WIDE RDT&E PROGRAMS

DOD requested \$8.6 billion for defense-wide RDT&E programs in fiscal year 2000. As shown in table II.5, we identified a potential reduction of \$4.8 million to the fiscal year 2000 request.

Table II.5: Potential Reduction to Defense-wide RDT&E Programs

Dollars in millions

Line no.	Line item description	Fiscal year 2000	
		Request	Potential reduction
19	Weapons of Mass Destruction (WMD) Related Technologies	\$203.512	\$4.816
	Total		\$4.816

Weapons of Mass Destruction (WMD) Related Technologies (Line 19)

The Defense Threat Reduction Agency’s fiscal year 2000 budget request of \$203.512 million for Weapons of Mass Destruction Related Technologies can be reduced by \$4.816 million because the fiscal year 2000 program requirements are overstated.

The Agency plans to use these funds to conduct research and development activities that are similar to other activities being conducted elsewhere in DOD. Specifically, the Agency plans to use \$2.366 million for the Weapons System Lethality project and \$2.45 million for the Weapons System Operability account for research and development

of Electromagnetic Hardening Technologies to protect systems from emerging threats such as radio-frequency and high power microwave attack. According to Office of the Secretary of Defense and service officials, similar research and development efforts are also being done by the services' laboratories and warfare centers.

The Agency did not agree with the potential reduction. It maintains that its program is coordinated within DOD, the services, and their respective laboratories. Also, it stated that other high power microwave efforts within DOD are focused on source development rather than defense. However, we identified multiple high power microwave research efforts in the military, services including efforts with defensive applications. Thus, we continue to believe that because the Agency's planned research and development efforts are similar to other ongoing service efforts, \$4.816 million can be reduced from the fiscal year 2000 budget request.

POTENTIAL RESTRICTIONS TO PROCUREMENT AND RDT&E PROGRAMS

Our review of selected budget line items in the DOD fiscal year 2000 procurement and RDT&E budget request identified issues on several programs that Congress may want to assure have been satisfactorily resolved before appropriated funds are spent. These issues were identified in six programs with a total of \$301.9million that warrant potential spending restriction. The potential restrictions include \$86 million related to two procurement programs and about \$216 million associated with four RDT&E programs in the fiscal year 2000 budget request. This information is summarized in table III.1.

Table III.1: Potential Restrictions to Procurement and RDT&E Programs

Dollars in millions

	Fiscal year 2000	
	Potential procurement restrictions	Potential RDT&E restrictions
Army	0	\$185.365
Navy	\$35.600	30.567
Air Force	50.400	0
Total	\$86.000	\$215.932

PROCUREMENT PROGRAMS

The DOD fiscal year 2000 budget request includes requested funding for a joint Navy and Air Force missile procurement program—\$35.6 million and \$50.4 million, respectively—that warrants potential spending restriction. The issues are discussed below.

Missile Procurement, Navy

Joint Standoff Weapon (JSOW) (Line 7)

The Navy’s fiscal year 2000 budget request of \$154.9 million for the Joint Standoff Weapon includes \$35.6 million for production of 97 antiarmor variants that should be restricted until quantity requirements can be reassessed considering limitations in the weapon’s capability to counter moving targets at standoff ranges. If these limitations are not addressed, the theater commander will be limited to attacking enemy armor at choke points or in staging areas, which should require fewer weapons than originally predicted for this weapon.

The Navy and the Air Force did not prepare an analysis of alternatives for the antiarmor variant before entering production. However, the Sensor Fuzed Weapon with Wind Corrected Munitions Dispenser as well as the Maverick missile could provide alternatives for attacking maneuvering armor. At a minimum, a reassessment of the quantities is needed to justify the quantities of the antiarmor variant to be produced. Navy and Air Force officials did not agree with the funding restriction for the antiarmor variant. They stated that a restriction would very likely lead to a break in production. They also stated that the weapon was effective, as required in the operational requirements, and that no change in threat or capabilities warranted the expense of preparing an analysis of alternatives at the production milestone.

As noted in our report,¹ we believe that substantial changes have occurred in the required capabilities since the last reassessment was prepared. The requirement for self-targeting has slipped from the initial requirements to an objective requirement. Further, the Sensor Fuzed Weapon with Wind Corrected Munitions Dispenser has been developed and tested and is a potential alternative. Both of these events would appear to affect the quantities of the antiarmor variant needed. The restriction need not lead to a break in production for the antiarmor variant and the warhead if the services begin the analysis immediately. Also, a break in production would not occur because the antiarmor variant and the baseline variant of the Joint Standoff Weapon use the same body and the warhead for the antiarmor variant and the Sensor Fuzed Weapon use the same production line. We continue to believe that the \$35.6 million fiscal year 2000 budget request should be restricted until a reassessment of the quantities justifies the planned procurement.

Missile Procurement, Air Force

Joint Standoff Weapon (Line 5)

The Air Force's fiscal year 2000 budget request for the Joint Standoff Weapon includes \$50.4 million that should be restricted until the Air Force reassesses the quantity of antiarmor variants it needs considering limitations in the capability of the weapon to counter moving targets at standoff ranges. If these limitations are not addressed, the theater commander will be limited to attacking enemy armor at choke points or in staging areas, which should require fewer weapons than originally predicted for this weapon.

DOD and the Air Force did not agree with the potential restriction on procurement funding for the antiarmor variant. They stated that an analysis of alternative is not

¹ Defense Acquisitions: Reduced Operational Effectiveness of Joint Standoff Weapon, (GAO/NSIAD-99-137, August 31, 1999).

necessary because the assumptions and conclusions in their 1995 cost and operational effectiveness analysis are still valid. According to DOD and the Air Force, there are no limitations that would prevent the antiarmor variant from countering moving targets, and the variant is not required to be self-targeting. Officials further stated that they did not believe that an analysis could be prepared in time to meet contract award dates for the second low-rate production buy in December 1999 or the initial operational test and evaluation scheduled for April 2000. Officials stated that the full-rate production decision would be a more natural time for an analysis to be provided. In addition, DOD and the Air Force stated that any decreases in the number of missiles to be procured would affect the price of the wide area variant since both the antiarmor and wide area variants are the same except for their payloads.

As noted in the previous discussion, an analysis of alternatives for the antiarmor variant was not conducted prior to entering production. We do not believe the assumptions in the 1995 analysis are still valid because the missile requirements have changed and capabilities have been reduced since the analysis was performed.² Antiarmor variants using preplanned targeting will only be effective against stationary targets—a more limited target set than anticipated. However, the Sensor Fuzed Weapon with Wind Corrected Munitions Dispenser and the Maverick missile could provide alternatives for attacking maneuvering armor. The Air Force's analysis of the relative performance of the Sensor Fuzed Weapon with Wind Corrected Munitions Dispenser shows little difference in the effectiveness of the two weapons. Further, delaying the analysis until the full-rate production decision could result in the procurement of missiles that may be less capable than existing alternatives for attacking maneuvering armor. After the Navy Acquisition Executive waived the requirement to prepare an analysis of alternatives prior to the low-rate initial production decision, test results call into question the efficacy of the weapon system. Until these concerns are resolved, some restriction on continued procurement of the antiarmor variant appears to be warranted. We note that procurement quantities could be adjusted to lessen the impact on the cost of the antiarmor weapon. Therefore, we believe the \$50.4 million for procurement of the antiarmor variant should be restricted until the services have a more precise idea of the quantities they will need considering the capabilities of the weapon to counter maneuvering armor.

² Defense Acquisitions, (GSO/NSIAD-99-137, August 31, 1999).

RDT&E PROGRAMS

The DOD fiscal year 2000 budget request includes \$215.9 million related to four RDT&E programs that warrant potential spending restriction. Of this amount, about \$185.4 million is related to three Army programs and \$30.6 million is related to one Navy program. The issues are discussed below.

Army**Joint Tactical Radio (Line 77)**

The Army's fiscal year 2000 budget request of \$36.797 million for Joint Tactical Radio includes \$24.365 million that can be restricted until the Army has a detailed definition of the expenditure plan for these funds.

The Army is requesting these funds for architecture-related activities. However, there is only a preliminary definition of the architecture, and it is not known whether a single architecture is achievable. Based on the Army's plan to continue with the architecture development phase, a validated architecture is not estimated to occur until fiscal year 2001. The architecture development phase that is scheduled to begin in September 1999 is expected to be completed within 12 to 18 months and result in a validated architecture. DOD is also reevaluating how many existing (legacy) radio signal communication formats the system will eventually need to support. Some have possibly become obsolete.

The Army said that they completed the architecture definition phase in June 1999, issued a solicitation for proposals to develop and validate the architecture, and plan to award the contract in September 1999. The program office has \$8 million in fiscal year 1999 funds that it plans to use to support architecture development. DOD and the Army said they do not agree with the potential restriction because the timely release of funds is critical to continued program success. They said that the fiscal year 2000 funds are needed to support a significant portion of the September 1999 contract to be awarded as well as the additional validation prototyping activities.

Until the Army more fully defines and develops the architecture(s), it is premature to obligate funds for architecture-related activities beyond the \$8 million available from fiscal year 1999 funds. Therefore, the \$24.365 million in the fiscal year 2000 budget request can be restricted until the Army defines a detailed expenditure plan and milestones for the architecture development phase.

Combat Feeding, Clothing, and Equipment (Line 94)

The Army's fiscal year 2000 budget request of \$110.829 million for Combat Feeding, Clothing, and Equipment includes \$86.6 million for Land Warrior, of which \$79.7 million can be restricted.

The Land Warrior program entered engineering and manufacturing development in January 1996. The Army has been revising its acquisition plan since August 1998 because of development production delays, and the Army has postponed production. The Army's fiscal year 2000 budget request does not reflect the current program restructure plan that is being reviewed, including revised funding requirements. In addition, approval of the restructure plan scheduled for March 1999 has been postponed indefinitely. Because the Army does not have an approved restructure plan, we believe it is reasonable to restrict \$79.7 million requested in fiscal year 2000 for the Land Warrior program until the plan is approved and funding requirements are known.

**Brilliant Anti-Armor Submunition (BAT)
(Demonstration and Validation) (Line 103)**

The Army's fiscal year 2000 budget request of \$128.026 million for the development of the Brilliant Anti-Armor Submunition includes \$81.3 million for the development of the preplanned product improvement that should be restricted to ensure it is used as planned.

In the National Defense Authorization Act for fiscal year 1998, the conferees agreed to eliminate procurement funding for the basic Brilliant Anti-Armor Submunition. They authorized a transfer of \$35 million in procurement funding to the Brilliant Anti-Armor Submunition RDT&E budget to accelerate development and production of the preplanned product improvement Brilliant Anti-Armor Submunition. All Brilliant Anti-Armor Submunition and Army Tactical Missile System RDT&E programs are included in the same budget line. When the \$35 million was transferred, the program office used the funds for the basic program development, not the preplanned product improvement program. In the fiscal year 1999 appropriations bill, the Senate recommended reducing the procurement funding for the basic Brilliant Anti-Armor Submunition and the Army Tactical Missile System in half. The bill stated that neither the current threat environment nor the urgency of schedule milestones justified the acquisition strategy, indicating it was more reasonable to develop the near-term product improvement rather than the baseline capability.

For the past 2 years, the Army has reprogrammed funding requested for development of its preplanned product improvement program to the basic program. It reprogrammed

about \$8 million in fiscal year 1998 and \$18 million in fiscal year 1999. The effect has been to delay the preplanned product improvement program 2 years.

According to program officials, because of the high degree of commonality between the two programs, the dollars spent were beneficial to the preplanned product improvement program. They said that restricting funds would limit the flexibility of the Army to apply funding where the maximum benefit to each program could be realized. However, if the Congress intends for the funding to be used for the preplanned product improvement program, the \$81.3 million should be restricted.

Navy

Joint Standoff Weapon (Engineering and Manufacturing Development) (Line 124)

The Navy's fiscal year 2000 budget request of \$30.567 million for the Joint Standoff Weapon should be restricted until the Navy begins preparation of an analysis of alternatives based on significant changes in the capability of the redesigned unitary variant.

In 1998, DOD approved a redesign and restructure of the unitary variant to reduce its cost. As part of the redesign, the Navy eliminated the man-in-the-loop data link and installed a less sophisticated seeker. As a result, the weapon is no longer suitable for countering moving targets because the operator does not have a method of updating the aimpoint after weapon launch. However, according to a 1998 capabilities based munitions requirements analysis, this type of target comprised the overwhelming majority of targets the Navy planned to attack with the unitary variant. A recently updated requirements analysis continues to project significant unitary variant use against moving targets.

In approving the redesign and restructure of the unitary program, DOD did not require the Navy to prepare an analysis of alternatives. For example, potential alternatives such as the Standoff Land Attack Missile-Expanded Response and the Air Force's AGM-130 are available, and the Joint Air-to-Surface Standoff Missile is in development. Considering its limited efficacy against moving targets and the availability of alternatives, such an analysis appears to be necessary to determine whether the requirements for the unitary Joint Standoff Weapon justify continued development and production.

DOD and the Navy disagreed with the potential restriction. They stated that they saw no need to prepare an analysis of alternatives since the requirements had not changed, and there were no new alternatives that were less costly. They also stated that regardless of their cost, each of the proposed alternatives to the unitary variant is intended for a

different group of targets. We believe that requirements have changed regarding the number and kinds of targets the Joint Standoff Weapon can be expected to be effective against.⁸ Further, requirements changed to the extent that the operational requirements document has been revised based on the updated operational capabilities. Moreover, the Joint Air-to-Surface Standoff Missile, now in development, was not considered in the previous analysis, but it has greater capabilities in range and warhead size than the Joint Standoff Weapon unitary variant. Finally, the Navy now plans to use this weapon against artillery and defensive infantry fortifications designated as less critical targets.

Alternatives for attacking less critical targets, including the Joint Direct Attack Munition and laser guided bombs, are less expensive and potentially more lethal. Therefore, we continue to believe the \$30.567 million in the fiscal year 2000 budget request should be restricted until the Navy can justify the development based on an analysis of alternatives.

⁸ Defense Acquisitions, (GAO/NSIAD-99-137, August 31, 1999).

SCOPE AND METHODOLOGY

We reviewed DOD's procurement and RDT&E programs that we identified from our ongoing assignments and the initial phase of this assignment as having cost, schedule, performance, programmatic, or acquisition issues. To identify potential reductions to the fiscal year 2000 requests, potential rescissions of prior years' appropriations, and potential restrictions on the expenditure of funds, we interviewed program officials and reviewed program documentation such as budget requests and justifications, monthly program status reports, correspondence, briefing reports, and accounting and financial reports.

We conducted various analyses based on the data obtained on program status, test results, and contract awards. Our analyses included assessments of potential effects of changes or decisions that occurred after the budget submission, such as delays in testing schedules and contract negotiations, decisions to postpone planned procurement, and changes in program start-ups. We also assessed planned system buys based on changes in funding decisions and program funding needs as they related to systems' development progression. In addition, we evaluated test results for problems encountered, appraised the potential effect of test results on current procurement plans, and evaluated production problems and their impact on funding requirements. In some instances, our analysis identified potential spending restrictions which result from issues that Congress may want to assure have been satisfactorily resolved before appropriated funds are spent. Also, we identified potential reductions due to inflation adjustments based on funds withheld by DOD, which represent lower inflation than previously forecast in fiscal year 1999. According to DOD, funds related to the inflation adjustment but not on withhold were reprogrammed to meet program needs.

We performed our work at numerous DOD and military service organizations. Some of the organizations we visited were

- Office of the Secretary of Defense and Army, Navy, and Air Force headquarters, Washington, D.C.;
- Secretary of the Army, Research, Development, and Acquisition, Washington, D.C.;
- Ballistic Missile Defense Organization, Washington, D.C.;
- Army Tank-Automotive and Armament Command, Warren, Michigan;
- Army Aviation and Missile Command, Huntsville, Alabama;
- Army Space and Missile Defense Command, Huntsville, Alabama;
- Program Executive Office, Air and Missile Defense, Huntsville, Alabama;
- Office of Naval Research, Arlington, Virginia;
- Naval Air Systems Command, Patuxent River, Maryland;
- Naval Sea Systems Command, Arlington, Virginia;
- Naval Undersea Warfare Center Newport Division, Middletown, Rhode Island;

- Navy SPARWAR, San Diego, California;
- National Polar-Orbiting Operations Environmental Satellite System Integrated Program Office, Silver Spring, Maryland;
- Advanced Amphibious Assault Vehicle Program Office, Woodbridge, Virginia;
- Navy Operational Test and Evaluation Force, Norfolk, Virginia;
- Air Force Materiel Command, Aeronautical Systems Center, Wright-Patterson Air Force Base, Ohio;
- Eglin Air Force Base, Florida; and
- Air Force Materiel Command, Space and Missile System Center, Los Angeles, California.

We conducted our review from March 1999 to July 1999 in accordance with generally accepted government auditing standards.

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