

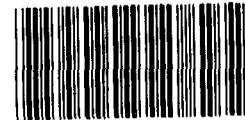
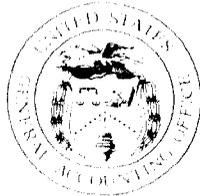
**GAO**

Report to Congressional Requesters

September 1991

# 1992 DEFENSE BUDGET

## Potential Adjustments to Ammunition Programs



144830

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United States  
General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

B-216058

September 12, 1991

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

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

As you requested, we reviewed the military services' justifications for their fiscal year 1992 budget requests for ammunition items and the Army's request for ammunition production base support. In addition, we examined selected segments of prior-year ammunition programs and additional, but unbudgeted, needs identified by the Army and the Marine Corps for fiscal year 1992. In May and June 1991, we briefed your offices on the results of our review. This report includes the information provided at those briefings and the final results of our review.

We are sending copies of the report to the Chairmen of the Senate and House Committees on Armed Services; the Secretaries of Defense, the Army, the Navy, and the Air Force; the Commandant of the Marine Corps; and other interested parties. We will also make copies available to others upon request.

This report was prepared under the direction of Richard Davis, Director, Army Issues, who may be reached on (202) 275-4141 if you or your staff have any questions. Other major contributors are listed in appendix V.

Frank C. Conahan  
Assistant Comptroller General

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# Executive Summary

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## Purpose

The Chairmen of the Subcommittees on Defense, Senate and House Committees on Appropriations, asked GAO to review the military services' justifications for their fiscal year 1992 budget requests for ammunition and the Army's request for ammunition production base support. GAO also examined selected segments of prior-year ammunition programs and additional, but unbudgeted, needs identified by the Army and the Marine Corps for fiscal year 1992.

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## Background

The military services requested about \$2.2 billion for ammunition in fiscal year 1992. The services justified their ammunition requests by stating that the ammunition was needed for training and a war reserve stockpile.

The Army requested an additional \$201.3 million for ammunition production base support. The Army justified this request by stating that the funds were needed to modernize and expand the ammunition production base, to lay away production facilities and maintain inactive facilities, to provide components for use in demonstrating production capacities, and to destroy conventional ammunition.

The Army and the Marine Corps also identified additional, but unbudgeted, needs for fiscal year 1992—\$549.1 million by the Army for ammunition and ammunition production base support and \$270.7 million by the Marine Corps for ammunition. The Navy and the Air Force did not identify additional needs.

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## Results in Brief

GAO concluded that most items in the services' \$2.2 billion fiscal year 1992 request for ammunition and the Army's \$201.3 million request for production base support were justified. However, as shown in table 1, GAO believes \$295.5 million, or about 12.3 percent, of the request is not justified and should not be funded.

**Table 1: Potential Reductions to the Services' Ammunition and the Army's Production Base Support Programs for Fiscal Year 1992**

Dollars in millions		
<b>Military service</b>	<b>FY 1992 budget request</b>	<b>Potential reductions</b>
Army		
Ammunition	\$1,048.5	\$80.4
Production base support	201.3	8.2
Navy	328.6	14.9
Air Force	306.7	108.7
Marine Corps	526.2	83.3
<b>Total</b>	<b>\$2,411.3</b>	<b>\$295.5</b>

GAO also concluded that \$10.1 million in the Army's fiscal year 1991 ammunition production base support appropriation is not needed because the funding is intended for projects at Army ammunition plants scheduled for closure in fiscal year 1993.

In addition, GAO concluded that there were 12 Army and 7 Marine Corps items for which the projected inventory levels were lower than the inventory objectives and that these items could be produced within the fiscal year 1992 program period. Increases for these unbudgeted items could more than offset any reductions to the requests for budgeted items.

## Principal Findings

### Army Ammunition and Ammunition Production Base Support Programs

The Army's \$1.05 billion fiscal year 1992 request for ammunition could be reduced by \$80.4 million, and the Army's \$201.3 million request for ammunition production base support could be reduced by \$8.2 million for the following reasons:

- \$47.7 million is for five ammunition items for which program quantities are greater than needed,
- \$28.5 million is for two ammunition items that have unresolved technical problems,
- \$4.2 million is for an ammunition item for which the cost will decrease,
- \$4.4 million is for initial production facilities for which funding is premature,
- \$1.3 million is for modernization projects at plants scheduled for closure, and

- 
- \$2.5 million is for maintenance of inactive binary chemical munitions facilities that will not be needed in fiscal year 1992.

In addition, \$10.1 million that was included in the Army's appropriation for fiscal year 1991 for production base support is not needed because the funding is intended for modernization projects at four Army ammunition plants scheduled for closure.

Any reductions to the Army's fiscal year 1992 ammunition request could be more than offset by increasing the budgets for other unbudgeted ammunition items that can be produced to meet fiscal year 1992 delivery schedules. GAO found that the projected inventory levels for 12 ammunition items that totaled \$280.2 million and that the Army identified as additional, but unbudgeted, needs were lower than the Army's inventory objectives and that these items could be produced within the fiscal year 1992 program period.

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### Navy Ammunition Program

The Navy's \$328.6 million fiscal year 1992 request for ammunition is overstated by \$14.9 million in fiscal year 1992 for three ammunition items for the following reasons:

- \$2.8 million is for one item for which the Navy reduced the quantity it intends to buy in fiscal year 1992, and
- \$12.1 million is for two items for which total program quantities will not be needed to meet fiscal year 1992 delivery schedules because of production problems.

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### Air Force Ammunition Program

The Air Force's \$306.7 million fiscal year 1992 request for ammunition could be reduced by \$108.7 million. As stated in an August 1991 report to the Appropriations Committees, GAO believes that the Congress should deny production funds for the Sensor Fuzed Weapon until the Department of Defense reassesses the weapon's cost and operational effectiveness in relation to other interdiction weapons (weapons used against enemy follow-on forces before they can reinforce or replace troops at the front) in the Department of Defense's inventory.

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### Marine Corps Ammunition Program

The Marine Corps' \$526.2 million fiscal year 1992 request for ammunition is overstated by \$83.3 million for the following reasons:

- \$43.7 million is for one item for which the total program quantity cannot be produced in time to meet fiscal year 1992 delivery schedules, and
- \$39.6 million is for four items that have reduced requirements.

Any reductions to the Marine Corps' fiscal year 1992 ammunition request could be more than offset by increasing the budgets for other unbudgeted ammunition items that can be produced to meet fiscal year 1992 delivery schedules. GAO found that the projected inventory levels for seven ammunition items that totaled \$122.6 million and that the Marine Corps identified as additional, but unbudgeted, needs were lower than the Marine Corps' inventory objectives and that these items could be produced within the fiscal year 1992 program period.

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## Recommendations

GAO recommends that the Senate and House Committees on Appropriations reduce the Department of Defense's fiscal year 1992 ammunition budget by the following amounts (see appendixes I, II, III, and IV):

- \$80.4 million for eight items in the Army's ammunition request,
- \$8.2 million in the Army's production base support request,
- \$14.9 million for three items in the Navy's request,
- \$108.7 million for one item in the Air Force's request, and
- \$83.3 million for five items in the Marine Corps' request.

In addition, GAO recommends that the Committees reduce the Army's appropriation for fiscal year 1991 by \$10.1 million for four ammunition production base support projects. Further, the Appropriations Committees might consider offsetting the GAO-recommended budget reductions for the Army and the Marine Corps by providing additional funding for other unbudgeted ammunition items that GAO found had lower projected inventory levels than the services' inventory objectives and that could be produced to meet fiscal year 1992 delivery schedules. See tables 2.4 and 5.2 for listings of these items.

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## Agency Comments

As requested, GAO did not obtain official agency comments on this report. However, GAO discussed the results of its work with Office of the Secretary of Defense, Army, Navy, Air Force, and Marine Corps officials and has included their comments where appropriate.

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**Abbreviations**

ADAM	area denial artillery munition
APDS-T	armor-piercing, discarding sabot with tracer
APFSDS-T	armor-piercing, fin-stabilized, discarding sabot with tracer
CIWS	close-in weapon system
DS-TP	discarding sabot target practice
GAO	General Accounting Office
HE	high-explosive
HEAA	high-explosive anti-armor
HEAT	high-explosive antitank
HEDP	high-explosive dual purpose
HEI-T	high-explosive incendiary with tracer
HE/PD	high-explosive/point detonating
HERA	high-explosive rocket assisted
IR	infrared
LAW	lightweight anti-armor weapon
mm	millimeter
SAW	squad automatic weapon
SMAW	shoulder-launched multipurpose assault weapon
TPCSDS-T	target practice cone-stabilized discarding sabot with tracer
TP-T	target practice-traced



# Introduction

As shown in table 1.1, the military services requested about \$2.4 billion for ammunition and ammunition production base support in fiscal year 1992.

**Table 1.1: Military Services' Fiscal Year 1992 Budget Requests for Ammunition and for Ammunition Production Base Support**

Dollars in millions	
Military service	Amount
Army	\$1,249.8
Navy	328.6
Air Force	306.7
Marine Corps	526.2
<b>Total</b>	<b>\$2,411.3</b>

The funds requested for ammunition will be used to meet training needs and to build a war reserve stockpile. The funds requested for ammunition production base support will be used to modernize and expand the ammunition production base, to lay away production facilities and maintain inactive facilities, to provide components for use in demonstrating production capacities, and to destroy conventional ammunition.

## Objectives, Scope, and Methodology

The Chairmen of the Subcommittees on Defense, Senate and House Committees on Appropriations, asked us (1) to assess the services' justifications for their fiscal year 1992 budget requests for ammunition and the Army's request for ammunition production base support and (2) to identify potential adjustments. In conducting our review, we evaluated the ammunition and production base support requests involving large dollar amounts, ammunition items being bought for the first time, and ammunition items that were having production and/or performance problems. We also examined selected segments of prior-year ammunition budgets and additional, but unbudgeted, needs identified by the Army and the Marine Corps for fiscal year 1992. In addition, we considered the results of a separate review of the Air Force's Sensor Fuzed Weapon, which we conducted for the Committees on Appropriations.

We reviewed the justifications for (1) 35 Army ammunition items, representing \$812.2 million, or about 77.5 percent of the fiscal year 1992 ammunition request; (2) 40 Army production base support projects, representing \$158.2 million, or about 78.6 percent of the fiscal year 1992 production base support request; (3) 15 Navy ammunition items, representing \$306.6 million, or about 93.3 percent of the fiscal year 1992 request; (4) 9 Air Force ammunition items, representing \$156.5 million,

or 51 percent of the fiscal year 1992 request; and (5) 21 Marine Corps ammunition items, representing \$398.2 million, or about 75.7 percent of the fiscal year 1992 request. Appendixes I, II, III, and IV show the items we reviewed and the potential reductions that we identified.

We evaluated the ammunition budget requests by reviewing such factors as ammunition requirements, inventory levels, production problems, item quality, testing and development, funded program status, unit costs, and field malfunctions to identify items with potential problems. We also analyzed production schedules, production capacities, past production, procurement lead times, and component deliveries to determine whether the services could execute the ammunition programs efficiently and economically. We compared projected inventory levels to training usage to ensure that inventories would not greatly exceed objectives. We also determined whether there will be sufficient quantities of components to produce end items. We did not verify the accuracy of data the services provided, such as inventory levels and training usage, but compared such information with data provided in prior years to evaluate its reasonableness.

To evaluate projects for production base support, we determined whether their designs had been completed prior to budget submission and whether the projects were still needed.

In conducting our evaluation, we interviewed ammunition production managers, procurement officials, and quality assurance and engineering staff. We also reviewed various documents, such as information papers, test data analyses, training consumption reports, and budget support data, which we obtained at the following locations:

- Army, Navy, Air Force, and Marine Corps headquarters, Washington, D.C.;
- U.S. Army Materiel Command, Alexandria, Virginia;
- U.S. Army Armament, Munitions and Chemical Command, Rock Island, Illinois;
- U.S. Army Missile Command, Redstone Arsenal, Alabama;
- U.S. Army Production Base Modernization Activity, Picatinny Arsenal, New Jersey;
- Office of Project Manager for Binary Munitions, Aberdeen Proving Ground, Maryland;
- Project Manager, Tank Main Armament Systems, Picatinny Arsenal, New Jersey;
- Project Manager, Mortar Systems, Picatinny Arsenal, New Jersey;

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- U.S. Army Materiel Systems Analysis Activity, Aberdeen Proving Ground, Maryland;
  - Office of the Program Executive Officer for Armaments, Picatinny Arsenal, New Jersey;
  - Naval Air Systems Command, Arlington, Virginia;
  - Naval Sea Systems Command, Crane, Indiana; and
  - Ogden Air Logistics Center, Hill Air Force Base, Utah.

We discussed a draft of this report with officials from the Office of the Secretary of Defense, the Army Materiel Command's Office of the Deputy Chief of Staff for Ammunition, the Navy's Office of the Deputy Chief of Naval Operations for Logistics, the Air Force's Office of the Deputy Chief of Staff for Logistics, and the Marine Corps' Office of Program Manager for Ammunition. We made changes to the report, where appropriate, to reflect the views of these officials. As requested, we did not obtain official agency comments on this report.

We conducted our review from November 1990 to July 1991 in accordance with generally accepted government auditing standards.

# Army Ammunition Program

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The Army requested about \$1.05 billion for ammunition and \$201.3 million for ammunition production base support in its fiscal year 1992 ammunition budget request.

We believe that the Army does not need \$88.6 million in its fiscal year 1992 ammunition and ammunition production base support requests—\$80.4 million for eight ammunition items and \$8.2 million for two production base support projects—for the following reasons:

- \$47.7 million is for five ammunition items for which program quantities are greater than needed;
- \$28.5 million is for two ammunition items that have unresolved technical problems;
- \$4.2 million is for an ammunition item for which the cost will decrease;
- \$4.4 million is for initial production facilities for which funding is premature;
- \$1.3 million is for two production base support projects at plants scheduled for closure; and
- \$2.5 million is for a production base support project to maintain inactive binary chemical munitions facilities for which the cost will be less than the budgeted amount.

In addition, the Army does not need \$10.1 million that was included in its fiscal year 1991 appropriation for production base support at plants scheduled for closure in fiscal year 1993.

The Army's fiscal year 1992 budget could be increased for 12 other unbudgeted items that had projected inventory levels lower than the inventory objectives and that could be produced to meet fiscal year 1992 delivery schedules. This would more than offset any reductions cited above for budgeted items.

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## Inventory Will Exceed Requirements

The Army's \$115.8 million fiscal year 1992 request for five items could be reduced by \$47.7 million because projected inventories will exceed the Army's inventory objectives (see table 2.1).

**Table 2.1: Projected Excessive Inventory for Five Items in the Army's Fiscal Year 1992 Ammunition Budget**

Quantities in thousands

Item	Beginning inventory <sup>a</sup>	Fiscal year 1992 request	Inventory estimated usage <sup>b</sup>	Inventory objective	Projected excess inventory
5.56-mm blank cartridge	363,671	99,623	381,513	65,452	16,329
25-mm M910 cartridge	4,973	1,020	4,542	833	618
105-mm M490A1 cartridge	490	120	416	161	33
105-mm M724A1 cartridge	853	120	610	312	51
Nitroguanidine (pounds)	24,614	5,000	0	25,000	4,614

<sup>a</sup>Figures include items due in from prior-year programs.

<sup>b</sup>Figures include estimated usage through the end of the fiscal year 1992 program period.

### 5.56-mm Blank Cartridges

The Army's \$16.7 million request for 99,623,000 5.56-mm blank cartridges could be reduced by \$2.7 million because projected inventories will exceed requirements by 16,329,000 cartridges. Army officials agreed.

### 25-mm M910 Cartridges

The Army's \$15.2 million request for 1,020,000 25-mm M910 cartridges could be reduced by \$9.2 million because projected inventories will exceed requirements by 618,000 cartridges. Army officials agreed.

### 105-mm M490A1 Tank Cartridges

The Army's \$29.3 million request for 120,000 105-mm M490A1 tank training cartridges could be reduced by \$8.1 million for 33,000 cartridges because the projected inventory will exceed the Army's requirements at the end of the fiscal year 1992 program period.

Army officials agreed that inventory would exceed requirements but did not agree with the reduction. They said the Army was requesting more M490A1 cartridges than it needed during fiscal years 1992 and 1993 to avoid having to buy uneconomical quantities during fiscal years 1994 through 1997. According to the Army, while this acquisition strategy causes the Army inventory to be excess to its fiscal year 1992 requirements, the excess quantity will be used to fill training requirements through fiscal year 1997 or fiscal year 1998. The Army said that if the fiscal year 1992 request is reduced, the Army will have to restart the M490A1 program in fiscal year 1995 rather than the planned restart in fiscal year 1997 or 1998.

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While this acquisition strategy has merit, the fact remains that the fiscal year 1992 program provides 33,000 M490A1 cartridges above the Army's inventory objective, and therefore funding of \$8.1 million is unnecessary. In addition, the Army is reviewing its 105-mm tank training requirements due to force structure changes and expects the requirements to decrease. Given this expected decrease in requirements, we believe the request could be reduced by \$8.1 million.

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### 105-mm M724A1 Tank Cartridges

The Army's \$29.5 million request for 120,000 105-mm M724A1 tank training cartridges could be reduced by \$12.6 million for 51,000 M724A1 cartridges because the projected inventory will exceed the Army's requirements at the end of the fiscal year 1992 program period.

As with the M490A1 cartridge, Army officials agreed that inventory would exceed requirements but did not agree with the reduction. They said the Army was requesting more cartridges than it needed during fiscal years 1992 and 1993 to avoid having to buy uneconomical quantities in the future and to satisfy projected training requirements through fiscal year 1997 or fiscal year 1998. The Army said that if the fiscal year 1992 request is reduced, the Army will have to restart the M724A1 program in fiscal year 1996.

Last year, we concluded that the Army's fiscal year 1991 request for 105-mm M724A1 cartridges could be denied because the Army had excess inventories.<sup>1</sup> Army officials told us then that the Army was requesting more M724A1 cartridges in fiscal year 1991 than it needed to avoid buying this item in fiscal years 1992 and 1993. Even though the Appropriations Committees provided more funds for M724A1 cartridges than the Army requested for fiscal year 1991, the Army is requesting funds for this cartridge in both fiscal years 1992 and 1993. Because the fiscal year 1992 request exceeds the Army's fiscal year 1992 requirements by \$12.6 million for 51,000 M724A1 cartridges, we believe the request could be reduced by that amount. In addition, as stated above, the Army is reviewing its 105-mm tank training requirements due to force structure changes and expects its requirements to decrease.

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### Nitroguanidine

The Army's \$25.1 million request for about 5 million pounds of nitroguanidine could be reduced by \$15.1 million. The Army's inventory

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<sup>1</sup>Defense Budget: Potential Reductions to DOD's Ammunition Budgets (GAO/NSIAD-90-256, Sept. 17, 1990).

objective for nitroguanidine (a component used to manufacture propellant for artillery projectiles) is 25 million pounds, and without a fiscal year 1992 program the Army will have 24.6 million pounds of nitroguanidine, or 98.4 percent of the inventory objective, by the end of the fiscal year 1992 program period. We estimate that about \$2 million will be needed to procure the remaining 0.4 million pounds of nitroguanidine needed to reach the Army's inventory objective. However, Army officials told us that the 25-million-pound inventory objective may be overstated because the use of nitroguanidine has decreased since the inventory objective was established. Therefore, we believe that the Army does not need to procure nitroguanidine in fiscal year 1992.

Army officials agreed that inventories would exceed the Army's needs. They said, however, that if the \$25.1 million request for nitroguanidine in fiscal year 1992 is denied, the Army will have to close the manufacturing plant 2 years earlier than planned, and the Army will need about \$10 million in fiscal year 1992 to close the plant. Taking this into consideration, we believe that the Army's \$25.1 million fiscal year 1992 request for nitroguanidine could be reduced by \$15.1 million.

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## Technical Problems Unresolved

A total of \$28.5 million requested for two items is premature because the planned type classification has been delayed. Type classification identifies items that are acceptable for their intended missions and for introduction into the inventory. Army policy requires that ammunition items be type classified before they are procured.

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## Classified Item

The Army's \$18 million request for a classified item could be denied because the item is still in development and has not been type classified. The program has slipped by about 6 months since the budget request was submitted. The Army originally planned to type classify the item for limited production in September 1991; however, type classification has slipped to at least March 1992. In addition, the Army's schedule for type classifying the item as standard has slipped from March to September 1992. According to Army officials, the program has slipped because of a dispersion, or accuracy, problem at low temperatures.

The Army has not yet identified the cause of the dispersion problem and is attempting to correct the problem by making a series of design changes and testing various combinations of these design changes to determine whether they result in improvements. The Army has scheduled a series of tests from April through September 1991 to test the

various designs. If these initial developmental tests prove successful, the Army plans to freeze the design and to begin producing a much larger quantity of the item for the developmental tests and evaluations required to verify the fix and to type classify the item for limited production. According to an Army representative, although the tests will be conducted between January and June 1992, the Army expects to have sufficient test results by March 1992 to make the limited production decision.

Army officials believe they can identify and resolve performance problems in time to award a contract for limited production in fiscal year 1992. They added that a 50-percent reduction in the fiscal year 1992 funding would be more reasonable than denying all the requested funds because of the slippage of the program. However, we believe that it is premature to provide funding for this item because of type classification delays.

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## 25-mm M919 Cartridge

The Army's \$10.5 million request for 182,000 25-mm armor-piercing, fin-stabilized, discarding sabot with tracer (APFSDS-T) M919 cartridges could be denied because the cartridge does not meet performance specifications and has not been type classified. According to an Army information paper, the M919 cartridge failed performance tests for target dispersion, muzzle velocity, and muzzle flash during pre-production qualification tests in September 1990. Because of these test failures, the U.S. Army Materiel Systems Analysis Activity could not support type classification of the cartridge.

The Army made engineering changes during the first quarter of fiscal year 1991 to resolve the muzzle flash and muzzle velocity problems, but the Army has not started the engineering work necessary to resolve the target dispersion problem. Furthermore, the Army had not scheduled additional performance reviews and evaluations of the cartridge until late August 1991.

Army officials stated that cartridges produced to support Operation Desert Storm had performed adequately during lot acceptance tests and therefore they believed it will pass type classification tests. They agreed, however, that the cartridge had not yet been type classified and approved for troop use and that type classification tests were different from lot acceptance tests. We therefore believe the Army's request for M919 cartridges could be denied until the cartridge successfully meets type classification performance standards.

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## Unit Cost Will Decrease

The Army's \$31.4 million request for 39,000 120-mm target-practice-traced (TP-T) M831 tank training cartridges could be reduced by about \$4.2 million because Army officials expect the fiscal year 1992 unit cost to decrease by 12 to 15 percent due to greater production efficiency. Using an average decrease of 13.5-percent, we estimated that the fiscal year 1992 budgeted unit cost of \$802 a cartridge was overstated by about \$108.

Army officials told us that the Army uses a systems contracting method to procure M831 cartridges. Systems contracting enables the prime contractor to produce cartridges at a more cost-effective rate, which results in lower unit costs. According to the Army, systems contracting is being used for another 120-mm tank training cartridge, the M865 cartridge, and as a result the item's unit cost decreased from about \$900 to about \$600.

Although Army officials agreed that the costs of the M831 cartridge would decrease, they said that the Army cannot take advantage of the cost reduction for fiscal year 1992 because of the standard price system used. They said that they could not change the standard unit price of the 120-mm M831 until the next budget review. However, we believe that the budget can be reduced by \$4.2 million since the projected actual cost for the requested 39,000 M831 cartridges for fiscal year 1992 is \$4.2 million less than the budgeted amount.

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## Ammunition Production Base Support

The Army requested \$201.3 million for ammunition production base support in fiscal year 1992.

We believe that the Army's ammunition production base support request is overstated by \$8.2 million for the following reasons:

- \$4.4 million is for initial production facilities for which funding is premature.
- \$1.3 million is for modernization projects at plants scheduled for closure.
- \$2.5 million is for a production base support project to maintain inactive binary chemical munitions facilities for which the cost will be less than the budgeted amount.

In addition, the Army does not need \$10.1 million that was included in its appropriation for fiscal year 1991 for four modernization projects at Army ammunition plants scheduled for closure in fiscal year 1993.

**Request for Initial Production Facilities for the Sensor Fuzed Weapon Is Premature**

The Army requested \$4.4 million for initial production facilities for the Air Force's Sensor Fuzed Weapon. This amount represents \$3 million for equipment, \$0.9 million for equipment installation, and \$0.5 million for other support costs. We believe this request is premature because, as stated in a recent report to the Appropriations Committees, we believe the Congress should deny production funds for the Sensor Fuzed Weapon until the Department of Defense reassesses the weapon's cost and operational effectiveness in relation to other interdiction weapons in the Department of Defense's inventory (see ch. 4).

**Modernization Projects at Plants Scheduled for Closure in Fiscal Year 1993**

The Army plans to close several of its ammunition plants, including the Indiana Army Ammunition Plant in October 1992, the Longhorn Army Ammunition Plant in June 1993, and the Sunflower Army Ammunition Plant in July 1993. If these plants are closed during fiscal year 1993 as planned, we believe the Army will not need about \$11.4 million for six production base support projects: \$10.1 million for four projects included in the fiscal year 1991 appropriation and \$1.3 million for two fiscal year 1992 ammunition production base support projects, as shown in table 2.2.

**Table 2.2: Modernization Projects at Plants Scheduled for Closure**

Project number	Project amount	Project description
<b>Fiscal year 1991 projects</b>		
5912245	\$6,763,000	Pyrotechnic safety enhancement at the Longhorn plant.
5912739	1,825,000	Deluge (sprinkler) system for load lines 8A and 8B at the Indiana plant.
5912748	571,000	Deluge system for powder preparation at the Indiana plant.
5912749	905,000	Deluge system for load lines 5A and 5B at the Indiana plant.
<b>Subtotal</b>	<b>10,064,000</b>	
<b>Fiscal year 1992 projects</b>		
5925327	451,626	Miscellaneous production equipment at the Longhorn plant.
5925325	862,878	Replacement of miscellaneous production equipment at the Sunflower plant.
<b>Subtotal</b>	<b>1,314,504</b>	
<b>Total</b>	<b>\$11,378,504</b>	

An Army official agreed that the fiscal year 1991 appropriation could be reduced by \$10.1 million for the four projects because the Army no longer plans to execute these projects.

The Army official did not agree, however, with the reduction for the two fiscal year 1992 projects. He said the projects were needed to replace deteriorated equipment to be used until the plants were shut down. However, according to budget justification documents, the Army's schedule is to complete the installation of the new equipment at the Sunflower plant in March 1993 and at the Longhorn plant in April 1993. Thus, the equipment will be available only a few months before the plants are scheduled to be closed, leaving little opportunity for their use. In addition, we believe the equipment requested to support production at the Sunflower plant in fiscal year 1992 is not needed because the Army does not need to procure nitroguanidine in fiscal year 1992. Therefore, we believe the Army's fiscal year 1992 ammunition production base support request could be reduced by \$1.3 million for the two projects.

### Overstated Estimate for Maintaining Inactive Binary Facilities

The Army's \$70.1 million fiscal year 1992 request for the maintenance of inactive industrial facilities includes \$5 million for the maintenance of binary chemical facilities at the Army's Pine Bluff Arsenal for the M687 155-mm projectile, the Bigeye bomb, and the Multiple Launch Rocket System. An Army official said the \$5 million estimate represented the total cost to maintain all of the binary facilities for an entire year and that the estimate was based on the historical costs of maintaining similar facilities.

We determined, however, that some of the facilities were not scheduled to be placed in layaway until mid or late fiscal year 1992. Therefore, the Army will need only about half of the requested amount, or \$2.5 million, to maintain these binary chemical facilities in fiscal year 1992. Layaway of the Multiple Launch Rocket System is estimated to be completed by January 1992, the M687 projectile facilities by April 1992, and the Bigeye facilities by June 1992. Army officials agreed with our analysis, but stated the \$2.5 million not needed for maintaining the binary chemical facilities was needed to maintain other ammunition production facilities. They did not specify, however, what projects required additional funding.

### Army's Proposed Budget Increases

Army representatives identified, but did not budget for, 25 items for which they believed additional funding of \$549.1 million was needed in fiscal year 1992, and we reviewed the Army's justifications for 19 of the items. Table 2.3 shows the Army's proposed increases and the items we reviewed.

**Chapter 2**  
**Army Ammunition Program**

**Table 2.3: Army's Proposed Budget Increases**

Dollars in millions		
<b>Item</b>	<b>Quantity</b>	<b>Amount</b>
Cartridge, 120-mm, M831 <sup>a</sup>	48,000	\$46.3
Cartridge, 120-mm, M865 <sup>a</sup>	83,000	52.6
Cartridge, 25-mm, M919 <sup>a</sup>	460,000	56.0
Cartridge, 25-mm, M793 <sup>a</sup>	1,062,000	11.5
Cartridge, 25-mm, M792 <sup>a</sup>	2,400,000	69.8
Cartridge, 120-mm, XM934 <sup>a</sup>	108,000	37.0
Cartridge, 105-mm, M913 <sup>a</sup>	20,000	10.0
Projectile, 155-mm, M864 <sup>a</sup>	33,000	30.0
Projectile, 155-mm, M731 <sup>a</sup>	16,000	76.6
Cartridge, 5.56-mm, M193 <sup>a</sup>	6,327,000	1.3
Cartridge, 5.56-mm, ball linked for SAW <sup>a</sup>	1,323,000	0.5
Cartridge, 7.62-mm, special ball <sup>a</sup>	657,000	0.3
Cartridge, 9-mm ball <sup>a</sup>	8,161,000	1.1
Cartridge, caliber .50, M33 <sup>a</sup>	358,000	0.5
Cartridge, caliber .50 4/1 <sup>a</sup>	4,893,000	8.0
Cartridge, 60-mm illuminating	145,000	32.7
Rocket, Hydra, 70 M267 <sup>a</sup>	19,000	11.7
Rocket, Hydra, 70 M274 <sup>a</sup>	80,000	27.3
155-mm propelling charge, white bag <sup>a</sup>	250,000	21.2
Electronic time fuze, M762 <sup>a</sup>	275,000	22.0
9-mm AT-4 trainer	639,000	0.3
Airburst simulator	212,000	3.8
Hand grenade simulator	70,000	0.6
Conventional ammunition demilitarization		5.0
Production base support		23.0
<b>Total</b>		<b>\$549.1</b>

<sup>a</sup>Items we reviewed.

We reviewed 19 of the ammunition items for which the Army identified \$483.7 million for potential increases. We did not review the proposed increases for the other six items because of time constraints or the Army did not provide us sufficient information to evaluate the increases.

We found that projected inventory levels for 12 of the 19 items totaling \$280.2 million were lower than the Army's inventory objectives and that these items could be produced within the fiscal year 1992 program period (see table 2.4). Funding for the remaining seven items should not be increased because they cannot be produced within the fiscal year

1992 program period, their inventory levels would exceed the Army's requirements, or the items have unresolved technical problems.

**Table 2.4: Unbudgeted Army Items That Have Lower Inventories Than Requirements and That Can Be Produced Within the Fiscal Year 1992 Program Period**

Dollars in millions		
Item	Quantity	Amount
Rocket, Hydra 70, M267	19,000	\$11.7
Rocket, Hydra 70, M274	80,000	27.3
Cartridge, 120-mm, XM934	86,000	29.5 <sup>a</sup>
Cartridge, 5.56-mm, M193	6,327,000	1.3
Cartridge, 5.56-mm, ball linked for SAW	1,323,000	0.5
Cartridge, 7.62-mm, special ball	657,000	0.3
Cartridge, caliber .50, M33	358,000	0.5
Cartridge, 25-mm, M793	1,062,000	11.5
Cartridge, 25-mm, M792	2,400,000	69.8
Projectile, 155-mm, M864	33,000	30.0
Projectile, 155-mm, M731	16,000	76.6
155-mm, propelling charge, white bag	250,000	21.2
<b>Total</b>		<b>\$280.2</b>

<sup>a</sup>This is less than the amount identified by the Army because the total quantity cannot be produced within the fiscal year 1992 program period.

## Conclusions

We believe that \$80.4 million of the Army's fiscal year 1992 request for eight ammunition items is not needed because (1) requested program quantities for five items are greater than needed, (2) two items have not been type classified, and (3) the unit cost is projected to decrease for one item. We also believe that \$8.2 million of the Army's fiscal year 1992 request for production base support is not needed because (1) the Army does not need to establish initial production facilities for the Sensor Fuzed Weapon in fiscal year 1992 if the weapon is not funded in fiscal year 1992, (2) the Army does not need to modernize ammunition plants scheduled for closure, and (3) the Army overstated the estimated cost to maintain inactive binary chemical facilities in fiscal year 1992.

In addition, \$10.1 million of the Army's fiscal year 1991 appropriation is not needed because the funding is intended for four production base support projects at plants scheduled for closure.

The projected inventory levels for 12 ammunition items that total \$280.2 million and that the Army identified as additional, but unbudgeted, needs are lower than the Army's inventory objectives, and these items can be produced within the fiscal year 1992 program period.

Therefore, other items could be funded in fiscal year 1992 to more than offset reductions for budgeted items not adequately justified.

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## Recommendations

We recommend that the Senate and House Committees on Appropriations reduce the Army's fiscal year 1992 budget request by \$80.4 million for eight ammunition items and by \$8.2 million for production base support, as shown in appendix I. We also recommend that the Committees reduce the Army's fiscal year 1991 appropriation by \$10.1 million.

Further, the Appropriations Committees might consider offsetting the ~~above~~-recommended budget reductions for the Army by funding the 12 additional ammunition items that the Army needs, but did not budget for, and that can be delivered within fiscal year 1992 delivery schedules, as shown in table 2.4.

# Navy Ammunition Program

The Navy requested \$328.6 million for ammunition items in its 1992 budget. We believe that the Navy does not need \$14.9 million in fiscal 1992 for three ammunition items for the following reasons:

- \$2.8 million is for an item for which the Navy has reduced the planned procurement quantity, and
- \$12.1 million is for two items for which total quantities will not be needed to meet fiscal year 1992 delivery schedules because of production problems.

## Reduced Procurement Quantity

The Navy's \$5.8 million request for 241,223 MK 76 sub-caliber practice bombs could be reduced by \$2.8 million because after submitting its budget request, the Navy reduced the planned procurement quantity for fiscal year 1992 to 123,700 bombs for \$3 million. Navy officials agreed with the reduction.

## Deliveries Not Within Funded Delivery Period

The Navy's \$14.7 million request for the following two items is overstated by \$12.1 million because of problems in producing the required quantities within the fiscal year 1992 funded delivery period:

- \$9.6 million for 321 CBU-78/B Gator weapons and
- \$2.5 million for 200,000 40-mm M430 cartridges.

Ammunition program quantities for which funds are being requested should be delivered within the fiscal year's funded delivery period. The funded delivery period for an ammunition item begins the first day of the last month of the procurement lead time and ends 12 months later.<sup>1</sup> For example, if the procurement lead time for an ammunition item in the fiscal year 1992 budget is 15 months, the funded delivery period would start on December 1, 1992, and end on November 30, 1993. Since ammunition programs are funded each year, funding should not be provided for ammunition items that will be delivered after the fiscal year 1992 funded delivery period.

## Gator CBU-78/B Weapon

The Navy's \$9.6 million request for 321 CBU-78/B Gator weapons could be denied because the weapons cannot be produced within the fiscal

<sup>1</sup>Procurement lead time is the sum of administrative and production lead times. Administrative lead time begins at the start of the fiscal year and represents the time needed to award contracts for components. Production lead time begins when the component contracts have been awarded and ends when initial delivery is made for the assembled ammunition item.

year 1992 funded delivery period due to delays in producing two required components: a thermal battery and an MK 7 Mod 7 dispenser.

As of April 1991 the Navy had received funding for 2,152 Gator weapons that were undelivered, as shown in table 3.1.

**Table 3.1: Undelivered Gator Weapons for Which the Navy Received Funding**

Fiscal year	Undelivered quantity
1987	940
1988	236
1989	512
1990	264
1991	200
<b>Total</b>	<b>2,152</b>

Production delays associated with the thermal battery and the MK 7 Mod 7 dispenser are due to slippages in passing first article tests.<sup>2</sup> First article tests for the thermal battery were scheduled to be completed in January 1990, but as of July 1991, the tests had not been conducted. An Army quality assurance official said that the tests had been delayed because of the producer's lack of experience in manufacturing the item. Similarly, first article tests for the MK 7 Mod 7 dispenser were scheduled to be completed in July 1990, but as of July 1991, the tests had not been conducted. These tests were delayed because of changes in the contractor's manufacturing location and the technical data package.

Navy officials said that the requested fiscal year 1992 program should be funded because they believed any production delays will be resolved for the battery by obtaining another producer and for the dispenser by cannibalizing old weapons. Therefore, they stated that the requested quantity could be delivered by December 1994, when the fiscal year 1992 funded delivery period ends for the Gator weapon. However, in view of the substantial delays in completing the first article tests for the two required components, the uncertainty in obtaining the needed components, and the resulting large undelivered quantity of the assembled weapons from prior years, we believe that it is highly unlikely that the Navy can complete the fiscal year 1992 program within its funded delivery period and that the request could be denied.

<sup>2</sup>First article tests are conducted before or in the initial stage of production to ensure that the contractor can furnish a product that conforms to all contract requirements for acceptance.

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## 40-mm M430 Cartridge

The Navy's \$5.1 million request for 400,000 40-mm M430 cartridges could be reduced by \$2.5 million because about half of the cartridges requested by the Navy and the Marine Corps cannot be produced within the fiscal year 1992 funded delivery period.

The Navy and the Marine Corps requested a total of \$93.2 million for about 7.3 million M430 cartridges in fiscal year 1992: \$5.1 million for 400,000 Navy cartridges and \$88.1 million for about 6.9 million Marine Corps cartridges. In its role as the Single Manager for Conventional Ammunition, the Army procures 40-mm cartridges for the services and procures them from a sole source.

Army production schedules showed that in June 1991 about 7 million cartridges were undelivered from the fiscal year 1991 and prior-year programs and that these cartridges were scheduled to be delivered by December 1992, or 3 months into the fiscal year 1992 funded delivery period. Army production schedules also show that the fiscal year 1992 program is scheduled to be produced at a rate of 380,000 cartridges a month. On the basis of the Army's production schedules, we determined that about half of the combined Navy and Marine Corps programs, or about 3.65 million cartridges, cannot be delivered within the fiscal year 1992 funded delivery period. Allocating this reduction to the services in proportion to their requests results in a potential reduction of \$2.5 million for 200,000 cartridges for the Navy.

Navy officials did not agree with the reduction. They believe that because the Marine Corps' request is much larger than the Navy's, the Marine Corps should absorb the entire reduction. (See ch. 5 for a discussion of the Marine Corps' request.)

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## Conclusions

We believe that \$14.9 million of the Navy's fiscal year 1992 budget request is not needed because (1) the Navy reduced the planned procurement quantity for one ammunition item and (2) two other items cannot be produced within the fiscal year 1992 funded delivery period because of production problems.

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## Recommendation

We recommend that the Senate and House Committees on Appropriations reduce the Navy's fiscal year 1992 ammunition budget request by \$14.9 million, as shown in appendix II.

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# Air Force Ammunition Program

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The Air Force requested \$306.7 million for ammunition items in its fiscal year 1992 budget. We believe that the Air Force does not need the \$108.7 million it requested for low-rate initial production of the Sensor Fuzed Weapon in fiscal year 1992 and the budget could be reduced by that amount.

In our report on the Sensor Fuzed Weapon system, we recommended that the Secretary of Defense not approve the Sensor Fuzed Weapon production until the Air Force conclusively demonstrated that the weapon was cost-effective.<sup>1</sup> In addition, we stated that the Congress should deny production funds for the Sensor Fuzed Weapon until the Department of Defense had reassessed the weapon's cost and operational effectiveness in relation to other interdiction weapons in the Department of Defense's inventory.

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## Recommendation

We recommend that the Senate and House Committees on Appropriations reduce the Air Force's fiscal year 1992 ammunition budget request by \$108.7 million, as shown in appendix III.

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<sup>1</sup>Munitions Procurement: Resolve Questions Before Proceeding With Sensor Fuzed Weapon Production (GAO/NSIAD-91-235, Aug. 16, 1991).

# Marine Corps Ammunition Program

The Marine Corps requested \$526.2 million for ammunition items in its fiscal year 1992 budget. We believe that the Marine Corps does not need \$83.3 million for five items for the following reasons:

- \$43.7 million is for one item for which total program quantities will not be delivered during the fiscal year 1992 funded delivery period, and
- \$39.6 million is for four items for which the Marine Corps has reduced requirements.

The Marine Corps' fiscal year 1992 budget could be increased for seven other unbudgeted items that have lower projected inventory levels than inventory objectives and that can be produced to meet fiscal year 1992 delivery schedules. This would more than offset any reductions cited above for budgeted items.

## Deliveries Not Within Funded Delivery Period

The Marine Corps' \$88.1 million fiscal year 1992 request for about 6.9 million 40-mm high-explosive dual purpose (HEDP) M430 cartridges could be reduced by \$43.7 million for about 3.45 million cartridges because only about half of the quantities requested by the Navy and the Marine Corps are scheduled to be produced within the fiscal year 1992 funded delivery period (see ch. 3).

Marine Corps officials agreed that only about half of the requested quantity could be produced within the funded delivery period and that the request could be reduced by \$43.7 million.

## Marine Corps' Items With Reduced Requirements

The Marine Corps' fiscal year 1992 budget request for four items could be reduced by \$39.6 million because the Marine Corps has reduced its requirements for them and Marine Corps officials said that they no longer needed the originally requested quantities in the fiscal year 1992 budget. The items and potential reductions are shown in table 5.1.

**Table 5.1: Marine Corps' Items With Reduced Requirements**

Dollars in millions

Item	Original request	Proposed reduction	Revised request	Revised quantity
40-mm White Star Parachute	\$5.6	\$1.6	\$4.0	182,000
120-mm HEAT M830 cartridge	36.1	9.3	26.8	5,400
120-mm APFSDS-T M829A1 cartridge	31.6	23.6	8.0	4,900
120-mm TP-T M831 cartridge	5.1	5.1	0	0
<b>Total</b>	<b>\$78.4</b>	<b>\$39.6</b>	<b>\$38.8</b>	

Marine Corps officials agreed that the request could be reduced by \$39.6 million because requirements for these four items had decreased.

## Marine Corps' Proposed Budget Increases

Marine Corps representatives identified, but did not budget for, 17 items for which they believed additional funding of \$270.7 million was needed in fiscal year 1992. We reviewed seven of these items, representing \$122.6 million, and concluded that projected inventory levels for all seven items were lower than the Marine Corps' inventory objectives and that the items could be produced within the fiscal year 1992 funded delivery period (see table 5.2).

**Table 5.2: Marine Corps' Items Identified for Budget Increases**

Dollars in millions		
Item	Quantity	Amount
7.62-mm blank cartridge	5,638,322	\$1.9
155-mm ADAM projectile	10,524	50.0
155-mm baseburner projectile	33,407	30.0
AT-4 weapon	24,067	24.7
25-mm HEI-T cartridge	355,626	9.0
25-mm TP-T cartridge	353,660	4.0
25-mm APDS-T cartridge	143,414	3.0
<b>Subtotal<sup>a</sup></b>		<b>122.6</b>
40-mm practice cartridge	530,689	1.7
40-mm dummy cartridge	20,086	0.3
81-mm HE mortar cartridge	78,450	20.0
HEAA SMAW	15,181	35.6
155-mm white bag propelling charge	227,583	25.0
155-mm red bag propelling charge	18,397	12.0
Booby trap simulator	178,340	1.5
Electronic time fuze, M762	573,148	40.0
Electronic time fuze, M767	67,123	5.0
Linear charges	575	7.0
<b>Subtotal<sup>b</sup></b>		<b>148.1</b>
<b>Total</b>		<b>\$270.7</b>

<sup>a</sup>Total for the 7 items we reviewed.

<sup>b</sup>Total for the 10 items we did not review.

We did not review the Marine Corps' proposed increases for 10 items because of time constraints or the Marine Corps did not provide us sufficient information to evaluate the increases.

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## Conclusions

We believe that \$83.3 million of the Marine Corps' fiscal year 1992 request is not needed because (1) one item cannot be delivered within the funded delivery period and (2) the Marine Corps has reduced its requirements for four items.

The projected inventory levels for seven ammunition items that totaled \$122.6 million and that the Marine Corps identified as additional, but unbudgeted, needs are lower than the Marine Corps' inventory objectives, and these items can be produced within the fiscal year 1992 program period. Therefore, other items could be funded in fiscal year 1992 to more than offset reductions for budgeted items not adequately justified.

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## Recommendation

We recommend that the Senate and House Committees on Appropriations reduce the Marine Corps' ammunition budget request by \$83.3 million for five items, as shown in appendix IV.

Also, the Appropriations Committees might consider offsetting the above-recommended budget reductions for the Marine Corps by funding the seven additional ammunition items that the Marine Corps needs, and did not budget for, and that can be delivered within fiscal year 1992 program period, as shown in table 5.2.



# Potential Reductions to the Army's Ammunition Request

Dollars in millions

Budget line number	Item	Budget request	Potential reduction	Adjusted request	Remarks
4	Cartridge, 5.56-mm, all types	\$64.6	\$2.7	\$61.9	Inventory will exceed needs (see p. 14).
5	Cartridge, 7.62-mm, all types	10.1	0	10.1	None.
8	Cartridge, .50 caliber, all types	4.5	0	4.5	None.
9	Cartridge, 20-mm, all types	10.6	0	10.6	None.
10	Cartridge, 25-mm, all types	40.7	19.7	21.0	Inventory will exceed needs (see p. 14) and unresolved technical problems (see p. 17).
12	Cartridge, 40-mm, all types	2.2	0	2.2	None.
16	Cartridge, 120-mm, HE/PD, XM933	36.4	0	36.4	None.
20	Cartridge, 105-mm, TP-T, M490A1	29.3	8.1	21.2	Inventory will exceed needs (see p. 14).
21	Cartridge, 105-mm, DS-TP, M724A1	29.5	12.6	16.9	Inventory will exceed needs (see p. 15).
22	Cartridge, 105-mm, APFSDS-T, M900A1	64.5	0	64.5	None.
23	Classified item	18.0	18.0	0	Unresolved technical problems (see p. 16).
25	Cartridge, 120-mm, TP-T, M831	31.4	4.2	27.2	Cost of item will decrease (see p. 18).
26	Cartridge, 120-mm, TPCSDS-T, M865	111.6	0	111.6	None.
28	Cartridge, 105-mm, HERA, M913	15.1	0	15.1	None.
33	Projectile, 155-mm, baseburner, M864	120.9	0	120.9	None.
38	Propellant charge, 155-mm, Red Bag, M203	144.6	0	144.6	None.
40	Propellant charge, 8-inch, Green Bag, M1	18.2	0	18.2	None.
46	Mine, training, all types	7.6	0	7.6	None.
51	Rocket, LAW, all types	2.1	0	2.1	None.
54	Primer, percussion, M82	6.6	0	6.6	None.
55	Demolition munitions, all types	5.4	0	5.4	None.
56	Grenades, all types	3.9	0	3.9	None.
57	Signals, all types	4.6	0	4.6	None.
58	Simulators, all types	4.7	0	4.7	None.
66	Nitroguanidine	25.1	15.1	10.0	Inventory will exceed needs (see p. 15).
69	Provision of industrial facilities	67.8	5.7	62.1	Premature request for initial production facilities and plant scheduled for closure (see p. 19).

(continued)

**Appendix I  
Potential Reductions to the Army's  
Ammunition Request**

<b>Budget line number</b>	<b>Item</b>	<b>Budget request</b>	<b>Potential reduction</b>	<b>Adjusted request</b>	<b>Remarks</b>
71	Layaway of industrial facilities	\$21.1	0	\$21.1	None.
72	Proving ground modernization	1.5	0	1.5	None.
73	Maintenance of inactive facilities	59.6	\$2.5	57.1	Overstated cost estimate (see p. 20).
74	Conventional ammunition demilitarization	8.2	0	8.2	None.
<b>Subtotal<sup>a</sup></b>		<b>970.4</b>	<b>88.6</b>	<b>881.8</b>	
<b>Subtotal<sup>b</sup></b>		<b>279.4</b>	<b>0</b>	<b>279.4</b>	
<b>Total</b>		<b>\$1,249.8</b>	<b>\$88.6</b>	<b>\$1,161.2</b>	

<sup>a</sup>Total for budget requests we reviewed.

<sup>b</sup>Total for budget requests we did not review.

# Potential Reductions to the Navy's Ammunition Request

Dollars in millions					
Budget line number	Item	Budget request	Potential reduction	Adjusted request	Remarks
58	General purpose bombs	\$42.2	0	\$42.2	None.
59	2.75-inch rockets	10.7	0	10.7	None.
60	Machine gun ammunition	8.2	0	8.2	None.
61	Practice bombs	15.9	\$2.8	13.1	Reduced procurement quantity (see p. 24).
62	Gator	9.6	9.6	0	Production problems (see p. 24).
65	5-inch/54 gun ammunition	49.4	0	49.4	None.
66	CIWS ammunition	12.0	0	12.0	None.
67	76-mm gun ammunition	8.9	0	8.9	None.
68	Other ship gun ammunition	34.9	2.5	32.4	Production problems (see p. 26).
69	Small arms and landing party ammunition	13.5	0	13.5	None.
70	Pyrotechnic and demolition	14.7	0	14.7	None.
180	Aircraft escape rockets	7.0	0	7.0	None.
181	Airborne expendable countermeasures	65.0	0	65.0	None.
182	Marine location markers	6.5	0	6.5	None.
184	JATOS	8.1	0	8.1	None.
<b>Subtotal<sup>a</sup></b>		<b>306.6</b>	<b>14.9</b>	<b>291.7</b>	
<b>Subtotal<sup>b</sup></b>		<b>22.0</b>	<b>0</b>	<b>22.0</b>	
<b>Total</b>		<b>\$328.6</b>	<b>\$14.9</b>	<b>\$313.7</b>	

<sup>a</sup>Total for budget requests we reviewed.

<sup>b</sup>Total for budget requests we did not review.

# Potential Reductions to the Air Force's Ammunition Request

Dollars in millions

Budget line number	Item	Budget request	Potential reduction	Adjusted request	Remarks
7	Cartridge, 30-mm, training	\$44.4	0	\$44.4	None.
9	Cartridge, chaff, RR-180	2.5	0	2.5	None.
14	BSU-49 inflatable retarder	5.5	0	5.5	None.
15	Bomb, hard target, 2,000 lb.	21.4	0	21.4	None.
16	BSU-85 inflatable retarder	14.1	0	14.1	None.
18	Laser bomb guidance kit	17.6	0	17.6	None.
23	Skeet/Sensor Fuzed Weapon	108.7	\$108.7	0	Additional analysis needed before procuring the weapon (see p. 27).
27	Flare, IR, MJU-7B	6.6	0	6.6	None.
30	Flare, MJU-10B	7.5	0	7.5	None.
35	Fuze, FMU-139	36.9	0	36.9	None.
<b>Subtotal<sup>a</sup></b>		<b>265.2</b>	<b>108.7</b>	<b>156.5</b>	
<b>Subtotal<sup>b</sup></b>		<b>41.5</b>	<b>0</b>	<b>41.5</b>	
<b>Total</b>		<b>\$306.7</b>	<b>\$108.7</b>	<b>\$198.0</b>	

<sup>a</sup>Total for budget requests we reviewed, including our separate review of the Sensor Fuzed Weapon.

<sup>b</sup>Total for budget requests we did not review.

# Potential Reductions to the Marine Corps' Ammunition Request

Dollars in millions

Budget line number	Item	Budget request	Potential reduction	Adjusted request	Remarks
1	5.56-mm, all types	\$24.8	0	\$24.8	None.
2	7.62-mm, all types	40.7	0	40.7	None.
4	.50 caliber	38.3	0	38.3	None.
5	40-mm, all types	98.8	\$45.3	53.5	Deliveries not within funded delivery period and reduced requirements (see p. 28).
12	120-mm, HEAT, M830	36.1	9.3	26.8	Reduced requirements (see p. 28).
13	120-mm, APFSDS-T, M829A1	31.6	23.6	8.0	Reduced requirements (see p. 28).
14	120-mm, TPCSDS-T, M865	6.0	0	6.0	None.
15	120-mm, TP-T, M831	5.1	5.1	0	Reduced requirements (see p. 28).
16	155-mm, ADAM-S	40.2	0	40.2	None.
21	155-mm, M864, projectile, baseburner	53.0	0	53.0	None.
26	Light anti-armor weapon (AT-4)	5.3	0	5.3	None.
27	25-mm, HEI-T, M792	13.2	0	13.2	None.
28	25-mm, TP-T, M793	1.4	0	1.4	None.
29	25-mm, APDS-T	3.7	0	3.7	None.
<b>Subtotal<sup>a</sup></b>		<b>398.2</b>	<b>83.3</b>	<b>314.9</b>	
<b>Subtotal<sup>b</sup></b>		<b>128.0</b>	<b>0</b>	<b>128.0</b>	
<b>Total</b>		<b>\$526.2</b>	<b>\$83.3</b>	<b>\$442.9</b>	

<sup>a</sup>Total for budget requests we reviewed.<sup>b</sup>Total for budget requests we did not review.

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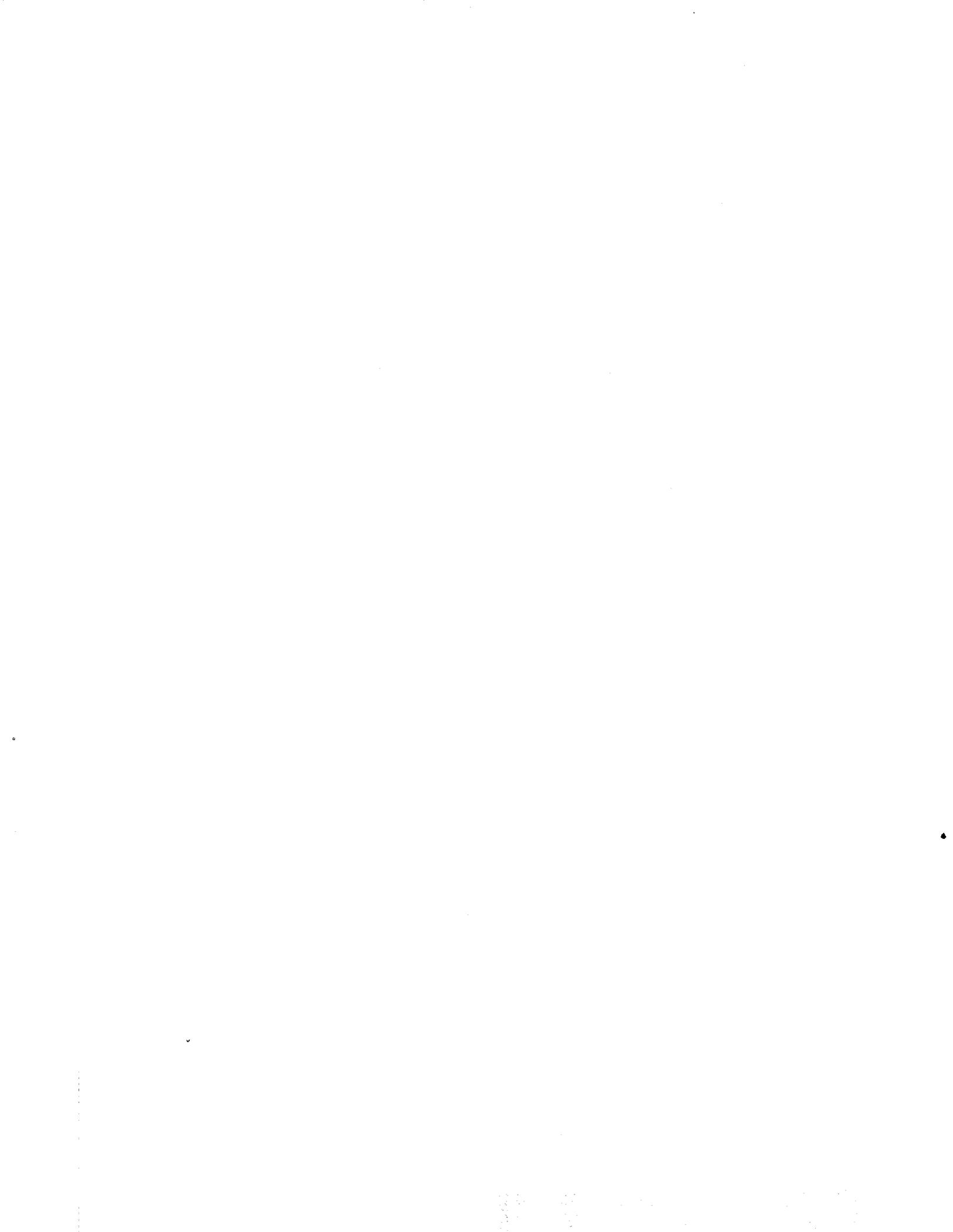
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