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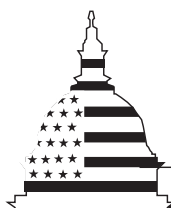
Report to the Chairman and Ranking  
Minority Member, Subcommittee on  
Readiness and Management Support,  
Committee on Armed Services, U.S.  
Senate

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September 1999

# DEFENSE TRADE

## Department of Defense Savings From Export Sales Are Difficult to Capture



**G A O**

Accountability \* Integrity \* Reliability

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

National Security and  
International Affairs Division

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The Honorable James M. Inhofe  
Chairman  
The Honorable Charles S. Robb  
Ranking Minority Member  
Subcommittee on Readiness and Management Support  
Committee on Armed Services  
United States Senate

In 1998, the Department of Defense (DOD) and its contractors planned to sell to foreign countries defense equipment, articles, and services worth a total of about \$44.3 billion. One of the U.S. government's goals in exporting defense items, as articulated in the 1995 Conventional Arms Transfer Policy, is to allow DOD to meet its defense requirements at less cost. To determine whether DOD is maximizing this benefit, we reviewed the sales of five major weapon systems—the Hellfire Missile, Advanced Medium Range Air-to-Air Missile (AMRAAM), High Mobility Multipurpose Wheeled Vehicle (HMMWV), Black Hawk Helicopter, and Aegis Weapon System. Specifically, as requested, we determined whether (1) export sales reduced the price of the five weapon systems, (2) DOD waived the requirement to recover nonrecurring research and development and production costs associated with the sales, and (3) DOD included this information when notifying the Congress about the sales or requesting budgetary authority to purchase the weapon systems.

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## Results in Brief

DOD saved at least \$342 million on its purchases of the five systems because either the Department or its contractors also exported the systems to foreign governments. However, DOD has not developed guidance aimed at maximizing savings from export sales, and acquisition personnel sometimes made decisions that reduced potential savings. DOD could have realized greater savings if it had combined purchases for foreign governments with purchases for the U.S. military, negotiated prices for export sales without giving up U.S. system price reductions, or required the contractor to perform work in the most economical manner even if such

performance affected offset agreements.<sup>1</sup> Savings would also have been greater if DOD had ensured that the export sales prices always included a proportionate share of the sustaining engineering and program management costs. The full impact of contractor direct sales on the price of DOD weapon systems cannot be assessed because information concerning the savings from combining material purchases and from learning efficiencies was not available.

Consistent with the Arms Export Control Act, DOD waived about \$378 million of costs to develop the five systems and establish their production facilities. In most cases, DOD waived these costs because the buyer was a North Atlantic Treaty Organization (NATO) ally and the sale meant that the United States and its allies would be using similar battlefield weapon systems.

When DOD notified the Congress of potential sales of the five systems, it did not provide, nor was it required to provide, information on whether export sales reduced the price of weapon systems being acquired for the U.S. military or whether DOD waived nonrecurring costs associated with the sales. Similarly, DOD did not always provide information on savings from export sales that the Congress could use to assess the President's request for budgetary authority to purchase the five systems. Nor did DOD always reduce its portion of the President's budget to reflect export sales savings. Only the Air Force consistently considered the impact of export sales in developing a program's budget. Beginning in fiscal year 1996, the Air Force voluntarily reduced the AMRAAM budget to reflect export-related reductions in the price of U.S. missiles. The Navy told us that its budget was reduced in 2 of the 5 years that it exported the Aegis Weapon System. The Army made no reductions to the Hellfire, Black Hawk, or HMMWV budgets. Instead, Army program offices used excess appropriations to buy additional systems or system components, or to meet unspecified needs.

To enhance the economic benefits derived from defense exports, we are making recommendations to improve DOD's ability to realize savings and the Department's processes for disclosing to the Congress the effect of export savings on weapon system costs.

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<sup>1</sup>Offsets are industrial or commercial benefits that a U.S. contractor provides to foreign governments as inducements or conditions for the purchase of military goods or services.

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## Background

The role of export sales in reducing the cost of weapon systems required by the U.S. military is becoming increasingly important. Between 1989, when the Cold War ended, and October 1998, DOD's total budget declined 30 percent in constant dollars and its procurement budget declined 50 percent in constant dollars. To hold down annual acquisition costs and fit the inventory of weapon systems to the downsized military force structure, DOD often purchased fewer quantities of individual weapons than originally planned. Theoretically, purchasing fewer systems reduces overall costs but increases unit cost. But, production quantities can be increased and unit cost decreased if DOD or its contractors sell systems being purchased for the U.S. military to a foreign government, particularly if contracts for the export sales are awarded at about the same time as the U.S. contract is awarded. If the contractor plans to produce additional units, it can purchase materials in bulk at discounted prices, realize labor efficiencies, and spread fixed overhead costs<sup>2</sup> over more units of production.

The U.S. government or contractors may sell defense items to a foreign government. When the sale is government-to-government through the foreign military sales program, DOD is generally required by section 21 of the Arms Export Control Act to charge the purchaser for a portion of the funds that the U.S. government invested to develop major defense equipment and establish a production capability.<sup>3</sup> Prior to 1996, DOD was authorized to waive these costs only if the sale advanced the U.S. government's interests in equipment standardization with the armed forces of NATO countries, Japan, Australia, or New Zealand. However, in 1996, the Congress authorized DOD to waive nonrecurring costs if refusing to grant the waiver would likely result in the loss of the sale or if the sale

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<sup>2</sup>Fixed overhead costs are costs that an organization incurs because of its structure, style of operation, methods of selling, size of productive capacity, and stored-up knowledge of key individuals. These costs cannot be easily reduced when production activity declines. Examples of fixed overhead are the cost of depreciation of facilities and equipment, property taxes, fixed salaries of supervisory and office personnel, and the base charge for utilities.

<sup>3</sup>Consistent with section 47 (6) of the Arms Export Control Act, DOD Directive 2140.2 defines major defense equipment as any item of significant military equipment listed on the U.S. Munitions List having a DOD nonrecurring research, development, test, and evaluation cost of \$50 million or a total DOD production cost of more than \$200 million.

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would reduce the cost of the U.S. purchase by an amount that would offset waived funds.<sup>4</sup>

Contractors are not required to collect nonrecurring costs. Since 1992, contractors have been exempt from collecting and depositing in the U.S. Treasury nonrecurring research and development and production costs when making direct sales to foreign governments.

Contractors often provide commercial or industrial benefits to foreign governments that purchase military goods. These benefits, known as offsets, may be offered as inducements or may be required by the foreign government as a condition of the purchase. Offset agreements may include subcontracting with the purchasing country's industries for component parts, providing the country's businesses with financial or marketing assistance, or undertaking a broad array of other activities that increase the foreign country's business base. The U.S. government is not a party to offset agreements and assumes no liability under the agreements.

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## DOD Realized Savings From Export Sales but Could Have Achieved More

DOD reduced the cost of the five weapon systems we reviewed when it or its contractors also exported the systems to foreign governments. However, DOD has no guidance on how to maximize savings from export sales and personnel responsible for negotiating and administering contracts that included U.S. and/or export requirements sometimes made decisions that prevented DOD from maximizing savings.

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## Export Sales Resulted in Reduced Costs of Weapon Systems

According to our analysis, DOD reduced its cost to purchase the Hellfire, AMRAAM, HMMWV, Black Hawk, and Aegis Weapon System by at least \$342.3 million as a result of export sales. The sales of each of these systems increased the quantity of systems DOD purchased and reduced the systems' unit prices because contractors could buy materials in bulk at discounted prices, realize labor efficiencies, and/or spread fixed overhead costs over more units of production. Table 1 displays our estimates of the quantifiable savings by system.

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<sup>4</sup>Although this new waiver authority was included in section 4303 of the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106), DOD could not exercise its new waiver authority until the President introduced and the Congress passed legislation that fully offset the estimated revenues that would be lost from the additional waivers. In September 1996, the Congress allowed the President to sell a portion of the National Defense Stockpile. The funds from this sale were used in part to offset the funds that DOD estimated would be lost between 1997 and 2005 as a result of the new waiver authority.

**Table 1: Weapon System Savings From Export Sales**

Dollars in millions					
System	Hellfire	AMRAAM	HMMWV	Black Hawk	Aegis Weapon System
Time period reviewed	1986-97	1993-98	1989-98	1984-99	1988-98
Price <sup>a</sup> and quantity of U.S. systems	\$1,285.4	\$1,148.7	\$1,757.2	\$4,173.5	\$2,792.3
	42,660	3,657	51,463	1,086	50
Price <sup>a</sup> and quantity of foreign military sales	\$92.6	\$909.4	\$372.4	\$296.9	\$501.0
	3,255	3,138	9,251	65	8
Price <sup>a</sup> and quantity of contractor export sales	Price unavailable <sup>b</sup>	No contractor sales	Price unavailable <sup>b</sup>	Price unavailable <sup>b</sup>	No contractor sales
	Total quantity unavailable <sup>c</sup>	None	12,027 <sup>d</sup>	336	None
Estimated quantifiable savings	\$1.9	\$223.0	\$71.3	\$7.4	\$38.7 <sup>e</sup>

<sup>a</sup> All prices are those recorded at contract award.

<sup>b</sup> Corporate policy restricts the disclosure of this data.

<sup>c</sup> The Hellfire II contractor reported that it sold 1,394 missiles directly to foreign governments. We were unable to collect information on the quantity of basic Hellfire missiles sold directly to foreign customers.

<sup>d</sup> The Light Tactical Vehicles Program Office reported direct contractor sales for 1989-97. The quantity shown in the chart does not include any direct sales made by the contractor in 1998.

<sup>e</sup> Aegis Weapon System savings include the effect of export sales on the prime contract only. Aegis Program Office officials told us that additional savings were realized when the government purchased system components and provided them to the prime contractor for integration into the Aegis Weapon System.

Information that could be used to determine how much DOD saved through export sales varied among the five systems. AMRAAM and Hellfire savings that resulted from larger production quantities could easily be calculated by comparing identified unit prices with and without export sales. Black Hawk savings could also be easily determined because price adjustments were documented in the contract.

The savings from HMMWV and Aegis Weapon System export sales were less easily determined, and our estimates of these savings were less precise. Documents that clearly identified the savings from export sales

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were available for only one of the five export sales of the Aegis Weapon System and for none of the HMMWV sales. We estimated savings for these two systems by discussing with the contractors the elements of product cost affected by increased production and then analyzing their proposal data for those cost elements to isolate and estimate the effect of export sales on unit prices.

Our analysis of Aegis Weapon System proposal data did not allow us to estimate the system's total savings. The contractor said that for three of the sales, savings were included in contract underruns.<sup>5</sup> Because the government and contractor shared savings from the underruns, DOD's costs were reduced. However, the underruns were attributable to a number of factors, and we could not isolate the savings created by export sales.

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### Larger Savings Were Possible

DOD issued no guidance to aid acquisition personnel in maximizing savings from export sales. Our analysis showed that savings from export sales could have been larger if contracts had been negotiated or administered differently. DOD's benefit from export sales was less when the military services (1) purchased weapon systems for the United States and export sales separately, (2) negotiated prices for export sales that required giving up price reductions for DOD systems, (3) allowed the contractor to incur higher material costs to satisfy an offset agreement, or (4) failed to implement an effective method to spread production costs evenly over units produced for the U.S. military and foreign buyers.

### Timing of Purchases Affects Savings

Our analysis showed that the timing of foreign sales was important. We observed that contractors reduced weapon system prices when DOD combined its purchases for foreign customers with its purchases for the U.S. military. Of the five weapon systems we reviewed, only the AMRAAM program office managed its export sales so that the U.S. and export requirements could be combined. Each year, DOD asked U.S. embassies in countries likely to purchase AMRAAM missiles to determine if those governments planned to make purchases in the coming year. According to program officials, foreign countries understand that their AMRAAM purchases must be combined with DOD's purchases to achieve the lowest possible price. Since 1993, with only two exceptions, the Air Force has

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<sup>5</sup>A contract is underrun when the contractor produces systems at less than the target price established by the contract.



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combined purchases for foreign sales with U.S. purchases. This acquisition strategy enabled the Air Force to reduce the cost of U.S. Air Force and Navy AMRAAM missiles about \$223 million. Our analysis also showed that the Army could have saved an additional \$2.9 million in the cost of Hellfire missiles by simultaneously purchasing missiles for export and Army requirements. Similarly, an Aegis Weapon System contract representative told us that if DOD purchased a larger quantity of systems at the time it awarded its annual production contract, the price of each system would be lower.

### Acquisition Decisions Reduced DOD's Savings

DOD's acquisition decisions affected savings. The Army could have reduced the cost of Hellfire missiles another \$1.4 million if it had not insisted on lower prices for export missiles. The Hellfire contract required a price reduction if additional missiles were purchased within 60 days of a U.S. order. In early 1996, the Army purchased additional missiles within the required time frame. However, the agency gave up its right to a reduction in the unit price of its missiles that totaled about \$0.9 million in exchange for a lower missile price for the foreign government. Later in 1996, the contractor offered to reduce the U.S. price by \$2.4 million because the Army was purchasing additional export missiles for another foreign customer 5 months after the U.S. order. However, the lower price for the U.S. missiles was contingent upon the foreign government paying a higher price to convert the missiles to the export configuration and to cover the cost risk associated with the sale.<sup>6</sup> The Army negotiated a \$1.9 million cost reduction, rather than the \$2.4 million offered by the contractor, giving up the additional \$0.5 million so that the contractor would agree to include less profit in the export missile price. The Army did not explain its rationale for this action.

Acquisition decisions also affected Aegis Weapon System savings. The Navy reduced its potential savings about \$3 million when it allowed the contractor for the Aegis Weapon System to purchase rather than make system subcomponents to satisfy an offset agreement. The contractor originally proposed to make the subcomponents at a cost of about \$22.5 million. However, when the contractor found that it was not meeting its agreement with the foreign government to purchase \$97 million of

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<sup>6</sup>According to a contractor representative, foreign customers typically require more technical support than DOD, and export missile warranties are often more expensive than estimated. Defense Federal Acquisition Regulation Supplement 215.404-71-3 (d) (3) allows DOD to pay a contractor more profit than normal in sales where the contractor can demonstrate that there are substantial risks above those normally present in DOD contracts for similar items.

subcomponents or parts from that country's industries, the contractor decided to buy additional subcomponents for DOD systems from the foreign manufacturers. According to an audit completed by the Defense Contract Audit Agency (DCAA), this decision will cause the contractor to pay about \$27.7 million for the parts—about \$5.2 million more than it cost to make them.<sup>7</sup> In addition, DCAA said the loss of production in the contractor's plant would result in an additional \$0.8 million in overhead costs. The decision to purchase the parts will not affect the weapon's target price under the Navy's fixed-price incentive contract. However, the contractor has underrun target prices since 1988 and, according to the terms of the contract, shared the savings equally with DOD. If the contractor were to reduce this contract's costs as much as it did some earlier contracts, the decision to buy the subcomponents could result in about \$6 million less in savings, which would reduce DOD's share by \$3 million.

### Full Allocation of Production Costs Necessary to Maximize Savings

We examined four Black Hawk production contracts where the Army purchased additional helicopters for export sale after initial contract award. Three of the four contracts allocated all sustaining engineering and program management costs to the units initially purchased on the contract and none to the additional units, although these units also benefited from these activities.<sup>8</sup> In two of the contracts, the Army directed the contractor to remedy the situation by adding a surcharge to the export units. However, the surcharge fell short of distributing the costs evenly to all helicopters purchased under the contract. In only one case did we have sufficient data to quantify the potential savings that the Army might have realized if these costs had been allocated evenly. In that case, we calculated that the Army could have recovered an additional \$3.4 million from export sales by evenly distributing the contractor's sustaining engineering and program management costs.

<sup>7</sup>The contractor agreed that its decision to purchase rather than make the parts will increase cost, but estimates that the increase will be only about \$0.6 million. DCAA's and the contractor's loss estimates differ because the contractor (1) estimated the cost to make the parts at current prices rather than the price negotiated at contract award, (2) deleted additional material cost from the estimate to buy the parts that is normally added to all purchased hardware, (3) assumed that its production loss and personnel retraining cost would not affect negotiated overhead rates, and (4) predicted that the foreign contractor would not require increased engineering support to produce the parts.

<sup>8</sup>We were unable to determine how sustaining engineering and program management costs were allocated to units purchased under the fourth contract.

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## Savings Attributable to Direct Sales by Contractors Is Unknown

Contractors' direct export sales also reduced the cost of DOD's weapon systems, but we could not always determine the amount of the reductions or whether the contractors considered all cost reductions when pricing DOD's systems. Our analysis showed that the Hellfire, HMMWV, and Black Hawk contractors sold those systems directly to foreign governments and included their direct sales in calculations of their overhead rates, which resulted in lower rates. Since these rates are the contractor's means of assigning overhead costs, such as equipment depreciation, property taxes, and administrative costs to a contract, a lower rate results in lower contract costs and a reduced weapon system unit cost. However, the Hellfire and Black Hawk contractors either did not have data or considered it too time consuming to develop data that would allow us to assess what the overhead rates would have been had there been no export sales. None of the contractors provided data that would allow us to determine whether material and labor costs decreased when the contractors increased production quantities by selling directly to foreign governments or whether these reductions, if they occurred, reduced the price of DOD's weapon systems. Neither could DOD officials provide information that would allow us to quantify the impact of contractors' direct sales on the price of U.S. weapon systems.

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## DOD Waived Nonrecurring Research and Production Costs

Consistent with the Arms Export Control Act, DOD declined to charge foreign purchasers \$377.8 million of nonrecurring costs that it incurred to develop the five weapon systems and establish their production facilities. Of the \$377.8 million, DOD waived \$289.6 million because the exports increased standardization of weapon systems between the United States and its NATO allies and \$29.6 million to avoid the loss of export sales. The remaining \$58.6 million was not collected when the Air Force and the Defense Security Cooperation Agency created hybrid sales agreements for some sales made in January 1995 and January 1996.

DOD considered the hybrid sales as the contractor's direct sales because the contracts were between the contractor and foreign purchasers and imposed no financial obligation on the U.S. government. But the sales were treated in many respects as government-to-government sales, with Air Force personnel negotiating, writing, and administering the contract. An AMRAAM program official said the foreign customers would not have purchased AMRAAM missiles if the \$58.6 million of nonrecurring costs were included in the purchase price. Therefore, DOD could not classify the sales as foreign military sales because legislation in effect at the time would

not have allowed DOD to waive these costs to avoid the loss of the sales.<sup>9</sup> Neither did the contractor sell the missiles directly to the foreign customers without DOD participation, which would have exempted the countries from paying the nonrecurring costs, because the Air Force recommended that the program office sell the AMRAAM only through the foreign military sales program.

Table 2 shows the amount of waived nonrecurring costs for each weapon system.

**Table 2: Waived Nonrecurring Costs**

Cost	Hellfire	AMRAAM	HMMWV	Black Hawk	Aegis Weapon System
Collectable nonrecurring costs	\$12,617,768	\$349,739,466	\$1,365,060	\$10,304,380	\$130,418,000
Waived nonrecurring costs	\$1,802,188	\$310,803,404	0 <sup>a</sup>	0	\$65,152,000
Percent of collectable nonrecurring costs waived	14.28	88.87	0	0	49.96

<sup>a</sup>The Army was able to locate data for only 88 percent of the HMMWV foreign military sales that would allow us to assess whether nonrecurring costs were waived. For those sales that we could assess, we found that all nonrecurring costs were collected.

## Decisionmakers Received Little Information on Savings or Waivers

Each time DOD or its contractors sought to export the Hellfire, AMRAAM, HMMWV, Black Hawk, or Aegis Weapon System, the President notified the Congress—giving it a chance to object to the system’s export—and each year the President asked the Congress to appropriate funds to purchase the systems.<sup>10</sup> Sections 36 (b) and (c) of the Arms Export Control Act require that the notifications include such information as the name of the purchasing country or international organization, the dollar amount of the sale, the number of items included in the sale, and a description of the item being sold. The notifications did not include, nor were they required to

<sup>9</sup>DOD’s authority to waive the nonrecurring costs to avoid the loss of a sale became effective September 1996. The Air Force created hybrid sales agreements for sales made in January 1995 and January 1996.

<sup>10</sup>The Arms Export Control Act requires the President to report to the Congress proposed foreign military sales of defense articles or services for \$50 million or more, design and construction services for \$200 million or more, or major defense equipment for \$14 million or more. The act also requires the President to report to the Congress contractors’ applications for licenses for the export of major defense equipment to be sold under a contract in the amount of \$14 million or more, or defense articles or services to be sold under a contract in the amount \$50 million or more.

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include, information on whether or by how much anticipated export sales would reduce the cost of DOD's weapon systems, or whether DOD had waived nonrecurring research and development and production costs. Similarly, the President's budget requests did not always advise the Congress of the impact of export sales on program budgets, and DOD did not consistently reduce its budget request to account for savings resulting from export sales.

Only the Air Force consistently reduced its budget request to reflect savings from anticipated export sales. Beginning in 1994, AMRAAM program office personnel recognized that export sales of the AMRAAM were likely to significantly impact AMRAAM production costs.<sup>11</sup> According to a program official, the Air Force estimated the number of missiles that would be sold and reduced its AMRAAM budget request to account for the expected savings. In those cases where the actual savings exceeded the budget reduction, the program office used the additional funds to purchase more AMRAAMs.

The Navy told us that its budget for the Aegis Weapon System was reduced to account for savings from export sales in 2 of the 5 years that it exported the system. In fiscal year 1994, the Navy voluntarily reduced its budget request \$11 million to account for an expected decrease in the weapon system's production cost caused by an export sale. In addition, the Congress reduced the Aegis budget by \$3.8 million in fiscal year 1998 when the Aegis Program Office disclosed that another export sale would reduce the cost of DOD's purchases.

The Army did not decrease its Black Hawk, Hellfire, or HMMWV budget requests to reflect savings from export sales. According to Army officials, when budget requests were prepared, DOD was unsure whether anticipated export sales would occur. The officials said that it was too risky to reduce budgets when savings might not be achieved. However, when export sales later produced savings, the Army did not inform the Congress of the savings or reduce its subsequent budget requests. Instead, the program offices used the excess funds to purchase additional systems or system components or to meet other unspecified needs.

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<sup>11</sup>Because DOD begins to formulate each fiscal year's budget request 2 years in advance of its submission to the Congress, the Air Force's recognition of production cost reductions in 1994 did not result in reduced budget requests until fiscal year 1996.

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## Conclusions

Although DOD reduced its cost to purchase five weapon systems when the systems were also sold to foreign governments, DOD did not maximize the potential for savings. In addition, the Congress lacked information that would have helped it oversee weapon system acquisitions and export sales.

DOD provided no guidance on how to maximize savings from export sales. As a result, program offices often handled export sales differently. We do not believe that every contract should be negotiated and administered in the same way. However, guidance could point out actions that have been shown to maximize savings. These actions include combining purchases of weapon systems for the U.S. military with purchases for foreign countries, negotiating and enforcing clauses that reduce weapon system prices if export sales are made within a reasonable time after DOD contracts are awarded, requiring contractors to perform work in the most economical manner, and allocating sustaining engineering and program management costs evenly over all units produced under a contract.

In addition, DOD provided the Congress with little information on the impact of foreign military and contractors' direct export sales on the price of the five weapon systems, the waivers that were part of some sales agreements, or the potential for budget reductions created by savings from weapon system exports. Although DOD is not required to provide this information, the data could have helped the Congress determine whether export sales achieved the goal of reducing the cost of U.S. weapon systems and whether DOD required all of the funds it requested to purchase weapon systems.

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## Recommendations

We recommend that the Secretary of Defense develop guidance that will assist the military services in maximizing savings from export sales.

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## Matters for Congressional Consideration

DOD does not always reduce its annual budget request to reflect savings from export sales or inform the Congress so that it may consider doing so. As evidenced by the Congress' reduction of the Aegis Weapon System's 1998 budget, information on savings due to export sales can be useful to the Congress in making budget decisions. In addition, the Congress may find information on cost savings and waivers of nonrecurring costs useful when reviewing proposed export sales. The Congress could use this information to judge the extent to which such sales will contribute to the cost reduction goal articulated by the Conventional Arms Transfer Policy.

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Accordingly, the Congress may wish to consider requiring that the Secretary of Defense develop guidance to ensure that budget requests reflect actual and projected savings from foreign military sales. In addition, the Congress may wish to consider requiring that the Secretary of Defense provide information on projected foreign military sales savings and waivers of nonrecurring costs when notifying the Congress of proposed sales. Finally, the Congress may wish to consider tasking the Secretary to assess the feasibility of collecting information that would quantify the impact of contractors' direct export sales on the price of U.S. weapon systems. If DOD is successful in collecting this data, it could also be reflected in budget requests and sales notifications.

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## Agency Comments and Our Evaluation

In commenting on a draft of this report, DOD concurred with our recommendation to develop guidance that will assist the military services in maximizing savings from export sales. DOD did not concur with our recommendation that it include information about the impact of export sales on each program's funding request. DOD noted that consideration of export sales is already a normal part of the budgeting process and that isolating the impact of export sales from other factors that affect program cost estimates would have no benefit. Neither did DOD concur with our recommendation that the Secretary of Defense collect information that would allow an assessment of the impact of export sales on the price of U.S. weapon systems. DOD said its requirement to provide cost and pricing data in sole-source acquisitions and its reliance on price competition in competitive acquisitions ensure that DOD obtains a reasonable price for its weapon systems.

We based our recommendations on the Congress' need for additional information to support the budgetary and arms transfer decision-making processes, not as a substitute for other means of obtaining a fair price. We found during our review that DOD did not consistently reduce military budgets to account for savings from export sales or provide enough information for the Congress to do so. DOD's disclosure of the budgetary impact of export sales would give the Congress greater oversight of military budgets.

Complete data that includes the impact of an export sale on DOD's weapon system price would also assist the Congress in making an informed arms sales decision. The Congress and the executive branch base decisions on a number of factors. In recent years, one important consideration has been the value that accrues to DOD from export sales in the form of lower unit

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costs. Yet we found during our review that the Congress is asked to approve export sales without information regarding the impact of export sales on the price of U.S. weapon systems. The Congress could benefit from information regarding production cost savings created by export sales and waivers of nonrecurring costs associated with the sales. This data would allow the Congress to assess whether export sales achieve the goal, established by the Conventional Arms Transfer Policy, of reducing the price of U.S. weapon systems.

In our opinion, additional information would improve budgetary oversight and assist the Congress in determining the extent to which export sales achieve Conventional Arms Transfer Policy goals. Therefore, we have deleted recommendations to the Secretary regarding those issues and addressed them to the Congress.

DOD also provided a technical comment on the report. We reviewed DOD's suggestion and made an appropriate change.

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## Scope and Methodology

We conducted our review as a case study of five weapon systems--the Hellfire missile, AMRAAM, HMMWV, Black Hawk Helicopter, and Aegis Weapon System. We judgmentally selected the systems because they represent acquisitions of each of the U.S. military services, were produced by four different contractors, and were of varied price. Because the sample is small, we cannot statistically state that the conditions we found in our sample would be found in all export sales. However, the sample illustrated the diverse actions that affect DOD's ability to maximize savings from export sales.

We calculated the effect export sales had on the price of DOD's weapon systems by analyzing contractor proposal data and prices and government billing adjustments. For the Hellfire and AMRAAM missiles and one Aegis Weapon System purchase, we examined the contractors' proposed prices for varying quantities to determine the price DOD would have paid if it had purchased only the quantity of weapon systems required by the U.S. military. We compared DOD's price for this lower quantity of systems to the Department's price for a larger quantity that satisfied both U.S. and foreign military requirements. The difference between the two prices represented system savings. To calculate the remainder of the Aegis Weapon System and all HMMWV savings, we determined the elements of the systems' costs that were affected by changes in the production rate. Once we identified these elements, we recomputed their cost assuming a



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level of production that satisfied only U.S. requirements. We defined system savings as the difference between the contractor's proposed price, which was based on U.S. plus export requirements, and the price we calculated using the recomputed cost elements. For the Black Hawk, we examined government billing adjustments to determine the sustaining engineering and program management costs that the government recovered when it added these costs to the contractor's price for foreign military sales systems. The Army made this adjustment because the contractor had charged these costs, which benefited all units, to helicopters purchased when the Army awarded its annual production contract and none to units produced for foreign military sales. We considered all recovered costs as savings. All costs and savings are reported in current year dollars unless otherwise noted. Data were not available to estimate dollar savings by year that would allow conversion to constant dollars.

To accomplish our analysis, we collected documents from and held discussions with the Air-to-Ground Missile Systems Project Office, Huntsville, Alabama; the U.S. Army Aviation and Missile Command (AMCOM) Acquisition Center, Huntsville, Alabama; the Air-to-Air Joint Systems Program Office, Eglin Air Force Base, Florida; the Light Tactical Vehicles Program Office, Warren, Michigan; the U.S. Army Tank-Automotive and Armaments Command (TACOM) Acquisition Center, Warren, Michigan; the Utility Helicopter Program Management Office, Huntsville, Alabama; and the Aegis Weapon System Program Office, Crystal City, Virginia. We also analyzed and discussed proposal data, price matrices, offset data, overhead analyses, and savings from export sales with officials at Lockheed Martin Electronics and Missiles, Orlando, Florida; Raytheon Missile Systems Company, Tucson, Arizona; AM General Corporation, South Bend, Indiana; Sikorsky Aircraft Corporation, Stratford, Connecticut; and Lockheed Martin Government Electronic Systems, Moorestown, New Jersey. While at the contractor locations, we talked with Defense Contract Management Command and DCAA personnel about export sales' impact on contractor overhead rate calculations.

We determined whether DOD exercised its authority to waive nonrecurring research and development and production costs by analyzing foreign military sales documents and discussing nonrecurring cost waivers with officials at the AMCOM Security Assistance Management Directorate; the Air-to-Air Joint Systems Program Office; the TACOM Security Assistance Center; and the Aegis Weapon System Program Office.

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In addition, we reviewed DOD's export sales notification and budgetary processes to determine whether DOD provided information on anticipated savings and waivers to the Congress when notifying it of expected export sales or requesting budgetary authority to purchase the weapon systems. We collected documents from and held discussions with officials from the Defense Security Cooperation Agency, the Air-to-Ground Missile Systems Project Office, the Air-to-Air Joint Systems Program Office, the Light Tactical Vehicles Program Office, the Utility Helicopter Program Management Office, and the Aegis Weapon System Program Office.

We conducted our work from July 1998 through May 1999 in accordance with generally accepted government auditing standards.

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As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies of this report to other interested congressional committees; the Honorable William Cohen, Secretary of Defense; the Honorable Louis Caldera, Secretary of the Army; the Honorable Richard Danzig, Secretary of the Navy; the Honorable F. Whitten Peters, Secretary of the Air Force; and the Honorable Jacob Lew, Director, Office of Management and Budget. We will make copies available to others upon request.

A list of contacts and key contributors for this report is in appendix II.



Henry L. Hinton, Jr.  
Assistant Comptroller General

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# Comments From the Department of Defense

Note: GAO's comments supplementing those in the report text appear at the end of this appendix.



ACQUISITION AND  
TECHNOLOGY

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000

August 3, 1999

DP/FC

Ms. Katherine V. Schinasi, Associate Director  
Defense Acquisition Issues  
National Security and International  
Affairs Division  
U.S. General Accounting Office  
Washington, DC 20548

Dear Ms. Schinasi:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "Cost Impacts of Export Sales," dated July 6, 1999 (GAO Code 707371/OSD Case 1859).

The DoD agrees that it can realize greater savings when impact of export sales are more carefully considered when pricing weapon systems. Therefore, we concur with recommendation one. DoD does not concur with recommendations two and three. Our detailed comments are provided in the enclosure.

Thank you for providing us the opportunity to comment on the draft report.

Sincerely,

Eleanor R. Spector  
Director, Defense Procurement

Enclosure:  
As stated



**Appendix I  
Comments From the Department of Defense**

GAO DRAFT REPORT DATED JULY 6, 1999  
(GAO CODE 707371) OSD CASE 1859

"COST IMPACTS OF EXPORT SALES"

DEPARTMENT OF DEFENSE GENERAL COMMENTS

\* \* \* \* \*

**DERIVATION OF COST SAVINGS:** The DoD was not presented with the detailed analysis substantiating the computation of the reported export sales cost savings. We would welcome the opportunity to review the GAO's detailed analysis.

**TYPE OF CONTRACT:** The DCAA field office responsible for the AEGIS Weapon System noted that the contract cited in the report is fixed price incentive. Therefore, in the second to last sentence on page nine, substitute "fixed price incentive" for "fixed price."

\* \* \* \* \*

DEPARTMENT OF DEFENSE COMMENTS  
TO THE GAO RECOMMENDATIONS

**RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense develop guidance that will assist the military services in maximizing savings from export sales. (p. 15/Draft Report)

**DOD RESPONSE:** Concur. The Director of Defense Procurement will issue guidance to the Military Departments and Defense Agencies recommending they consider export sales when developing contract strategies and establishing contract prices for DoD weapon systems. The guidance will encourage combining U.S. and Foreign Military Sales requirements whenever prudent. The guidance will advise contracting officers that, when negotiating contracts for U.S. weapon systems and export sales are anticipated, they should ensure that all costs, including sustaining engineering and program management, are properly allocated between the U.S. and the foreign customers. The guidance will also encourage the use of repricing clauses when additional export sales are likely within a reasonably short period of time and include a reminder that such clauses must be enforced. Finally, the guidance will clarify that DoD line items should not absorb any additional cost as a result of the contractor satisfying offset demands of a foreign customer.

ENCLOSURE

See comment 1.

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**Appendix I**  
**Comments From the Department of Defense**

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See comment 2.

**RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense include in DoD's annual submission to the President's budget information about the impact of export sales on each program's funding request and whether the program's budget was reduced accordingly. (p. 15/Draft Report)

**DOD RESPONSE:** Nonconcur. Considering the impact of export sales is already a normal part of the budgeting process. Program cost estimates are based on a wide variety of factors including other sales the contractor's business segment projects making as direct commercial sales, foreign military sales, or directly to the DoD. The DoD sees no benefit from trying to specifically isolate the impact of export sales in the budgeting process.

See comment 3.

**RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense collect information that will allow an assessment of the impact of contractors' direct commercial sales on the price of U.S. weapon systems.

**DOD RESPONSE:** Nonconcur. In a sole source acquisition the DoD requires cost or pricing data to determine the price reasonableness of a weapon system (see FAR 15.403-4) and contractors are obligated to disclose the fact that other sales (including direct commercial sales (DCS)) are likely to occur. If contractors fail to disclose this information, they would be in violation of The Truth in Negotiations Act (TINA), 10 U.S.C. 2306a, and the DoD would be entitled to a price reduction. For example, in the case of overhead rates, contractors must disclose potential other sales (including DCS) and their affect on the underlying business base projections used to calculate overhead rates. In the case of direct costs, contractors must disclose how other sales (including DCS) will affect the learning curve used to estimate unit assembly hours or how program management hours would be allocated to account for other sales (including DCS).

In the event of a price competition, cost or pricing data is not required since DoD relies on the forces of competition to establish the price of a weapon system. In this case, disclosure of direct commercial sales would have no impact on the competitively derived pricing.

Because it already collects information necessary to evaluate the impact of direct commercial sales when appropriate, DoD sees no reason to impose additional DCS disclosure requirements on its contractors.

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The following are GAO's comments on the Department of Defense's (DOD) letter dated August 3, 1999.

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## GAO Comments

1. The detailed analysis substantiating the computation of the reported export sales cost savings was offered to each program office for review. Officials from three of the program offices reviewed our data and agreed with its results. Officials from the remaining two program offices elected not to review the data, but did not indicate any disagreement with the savings being reported.
2. DOD said that the consideration of export sales is already a normal part of the budgeting process in that program cost estimates include consideration of contractors' direct and foreign military sales. However, our review showed that in only one of the five instances did a program office consistently reduce its budget to account for the savings from export sales. Officials at four of the five program offices told us that they did not reduce their production cost estimates or their planned budget requests to account for possible savings from export sales. Only the Advanced Medium Range Air-to-Air Missile (AMRAAM) program office adjusted its production cost estimate and consistently decreased its planned budget requests once export sales began to reduce weapon system costs.
3. We reworded our recommendation to more clearly state our intent. Our recommendation is based on the need for more information to support the arms decision-making process and is not intended as a substitute for other means that DOD uses to obtain a fair price. The Congress cannot assess whether export sales achieve the goal of reducing the price of U.S. weapon systems unless DOD (1) isolates the production savings realized from each export sale, regardless of whether the sale is made directly by the contractor or through the foreign military sales program and (2) informs the Congress of whether the sale resulted in the recovery of some portion of the funds spent to develop and establish production facilities for the system.

# GAO Contacts and Staff Acknowledgments

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## GAO Contacts

Katherine Schinasi (202) 512-4841  
Barbara Haynes (256) 650-1435

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## Acknowledgments

In addition to those named above, Lee Edwards, Erin Baker, and Marcus Ferguson made key contributions to this report.



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