



**U.S. MILITARY EXPORTS  
1970-1978**

**RESEARCH REPORT**

***aerospace research center***

1725 DE SALES STREET, N W WASHINGTON, D. C 20036

# **U.S. MILITARY EXPORTS 1970-1978**

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**THE AEROSPACE RESEARCH CENTER**  
Allen H. Skaggs, Director

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The mission of the Aerospace Research Center is to engage in research, analyses and advanced studies designed to bring perspective to the issues, problems and policies which affect the industry and, due to its broad involvement in our society, affect the nation itself. The objectives of the Center's studies are to improve understanding of complex subject matter, to contribute to the search for more effective government-industry relationships and to expand knowledge of aerospace capabilities that contribute to the social, technological and economic well being of the nation.



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# FOREWORD

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For several years, the United States has been experiencing large-scale international trade deficits, a situation which has contributed in considerable measure to a weakening of the dollar, to higher inflation rates at home, and to the general detriment of the U.S. economy.

The situation was exacerbated in 1979 by another round of OPEC oil price increases. While no ready solution of the trade deficit problem is yet apparent, one essential measure is to increase U.S. exports, particularly high-value high-technology exports, to offset oil-induced deficits to the extent possible. Yet despite improvement in some areas, U.S. exports continue to lag in a number of non-petroleum commodity categories.

The Aerospace Industries Association (AIA) believes that a major influence on the negative performance of certain sectors of the U.S. economy is the nation's ineffective export policy. As representative of the aerospace industry, the nation's largest manufacturing exporting industry, AIA has been studying all facets of international trade for several months and is conducting a series of analyses covering several specific areas of the problem.

This paper, a contribution by the aerospace industry to the study of the vital role exports play in achieving U.S. national security and foreign policy goals, addresses a subject of special importance—military exports. Such exports are an inseparable part of the overall export market for the industry; therefore, an essential element of any national trade improvement program is a flexible military export policy for the future.

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# INTRODUCTION

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On May 19, 1977, President Carter issued a set of policy guidelines designed to limit the U.S. role in international arms transfers. He stated:

"Because of the threat to world peace embodied in this spiraling arms traffic, and because of the special responsibility we bear as the largest arms seller, I believe that the U.S. must take steps to restrain its arms transfers."

Subsequently, the President imposed a ceiling of \$8.55 billion on foreign arms sales for the Fiscal Year 1978; the limit for FY 1979 was set at \$8.43 billion.

Reduction in the level of world arms sales has been among the President's highest foreign policy priorities. However, his strategy of unilaterally restraining sales with the hope of achieving equal restraints from the USSR, France and Britain has been unsuccessful. In November 1978, the President was forced to soften his stand and acknowledge that success in redirecting world arms transfers would hinge in the future on multi-lateral cooperation from other arms producers. He said:

"My decision on U.S. arms transfer levels for FY 1980 will depend on the degree of cooperation we receive in the coming year from other nations, particularly in the area of specific achievements and evidence of concrete progress on arms transfer restraint."

Debate on whether the level of international arms sales contributes to or reduces the risk of armed conflict has accelerated sharply as a result of the President's statements. This debate often cuts to the over-simplified

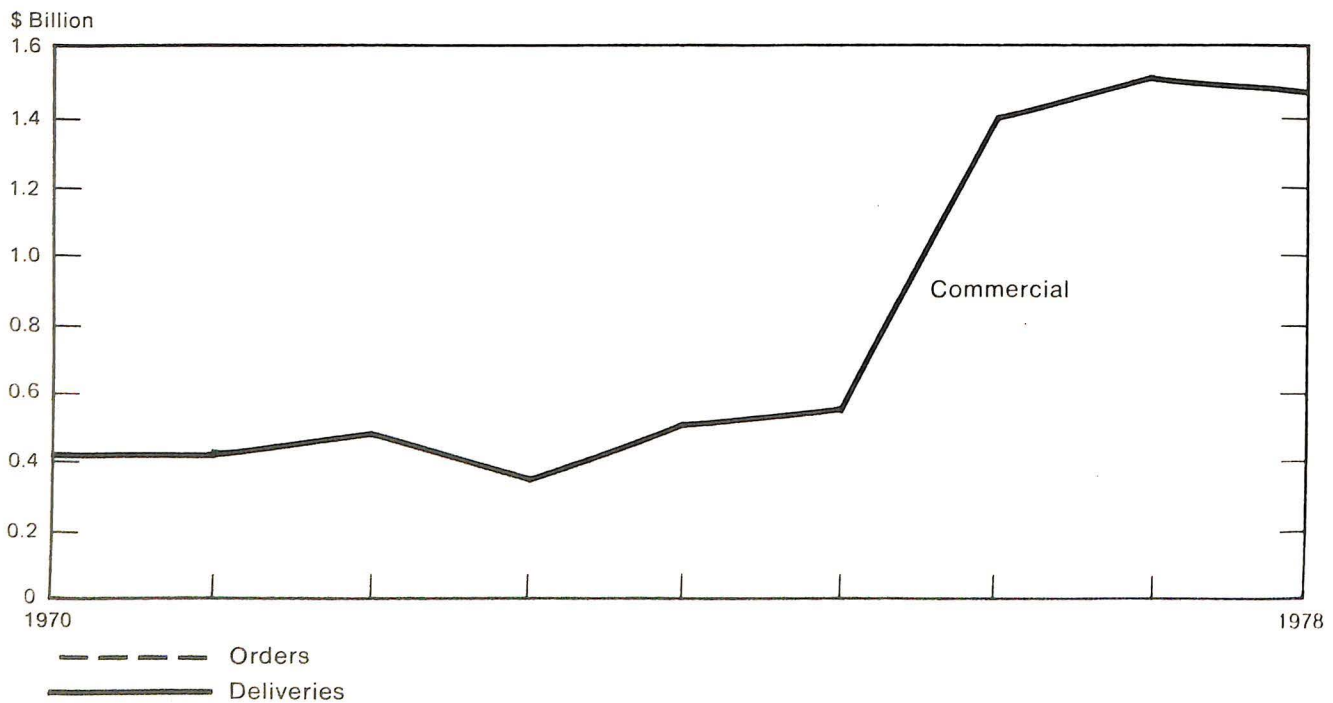
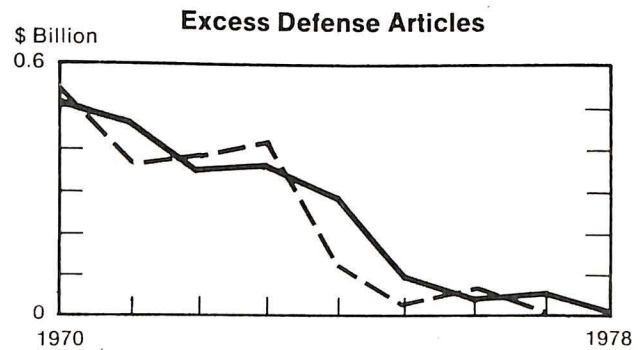
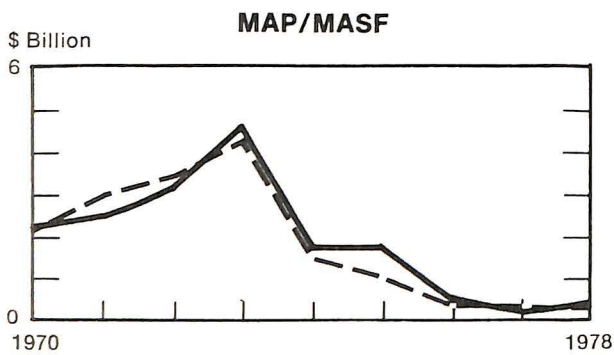
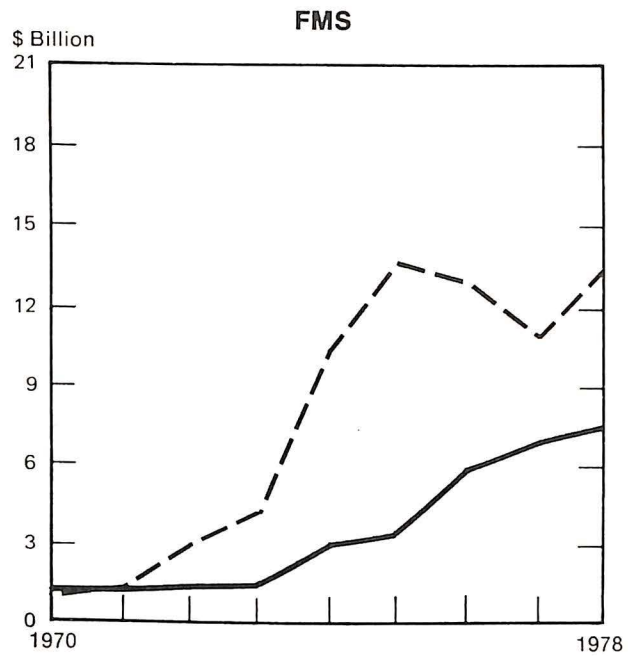
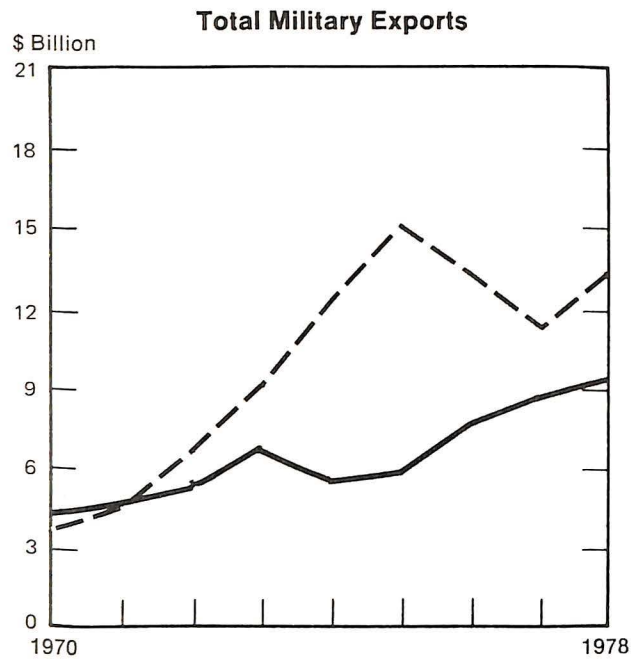
question—are arms sales good or bad? Responsible government cannot afford the luxury of reducing complex policy issues to simple questions.

The Aerospace Industries Association believes it is the responsibility of the Congress and the Executive Branch, not the manufacturers of weapons, to decide when an arms sale is in the best interest of the United States. Nonetheless, the industry is deeply involved and affected by the government's decisions and has, therefore, spent a great deal of time and effort studying the issue of foreign arms sales, especially the economic aspects, as a matter of self interest and concern.

A principal finding of this study is that the United States is not increasing exports of military goods and services at the rate commonly believed by the general public; analysis shows that perceived increases in foreign sales have been primarily attributable to inflation. When sales data are converted to constant dollar terms, it becomes apparent that—over the past eight years—the U.S. has maintained a relatively low average annual growth rate in military deliveries to foreign customers. Shipments in 1970 amounted to \$5.1 billion, jumped to \$6.8 billion in 1973, but fell to \$6.2 billion in 1978.

This report details other important information relevant to this complex issue, including current and credible data on the level of arms transfers, the role of the aerospace industry in arms exports, and key economic considerations such as employment in arms production and the savings to the U.S. Department of Defense made possible by foreign military sales.

**CHART 1**  
**U.S. MILITARY EXPORTS FY 1970-78**  
 (Billions of current dollars)





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# POLICIES

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## A. Carter Administration Policy on Arms Sales

In the first of six points in his May 1977 statement on foreign military sales (Appendix A), President Carter promised a reduction in the Military Aid Program (MAP) and in Foreign Military Sales (FMS) orders between FY 1977 and FY 1978. Cuts of \$1 billion or more in 1978 sales to Third World countries were considered. The \$9 billion ceiling established did not, however, apply to NATO allies, Japan, Australia, New Zealand, and under certain conditions to Israel. Therefore, total military sales in future years could be higher than they were in 1977—and will be, according to many forecasters. Moreover, reductions were promised for only one year and some State Department officials expressed doubt at that time that the restraint policy would last for more than two to three years.

The second point dealt with transfer of technology. "The U.S. will not be the first country to introduce weapons of increased sophistication into a region," the President said, "nor will it permit the sale of U.S. weapons systems abroad until they are fully deployed with U.S. forces." U.S. allies were exempted and the ban on sales to other nations could be waived in emergency situations. In a test case on exemption, President Carter in July 1977 approved the sale to Iran of seven AWACS aircraft, one of the most advanced U.S. command and control systems. After Congressional opposition to the sale, President Carter temporarily withdrew his approval but later allowed the transaction, only to be cancelled by the new Iranian government.

In point three, the President stated that he would not permit the development or significant modification of advanced weapons systems solely for export, an interdiction which would restrict the foreign market for some aerospace producers. For example, a highly successful U.S. fighter was developed primarily for foreign markets and sold abroad in large numbers, but never delivered to the U.S. military establishment.

The fourth point of the policy statement would prohibit

co-production agreements of significant weapons in countries not specifically exempt from the administration's policy. This prohibition will limit the acquisition of advanced weapons by Third World or lesser developed nations; its intent is to arrest the proliferation of war-making machinery in the hands of such countries. If this point is fully implemented, it would cut back substantially on present and potential agreements with U.S. allies in the Middle East but would not impact on the NATO countries, Japan, Australia and New Zealand.

In the fifth point, the President reserved the right to stipulate which weapons systems being purchased by a foreign nation can be retransferred to a third country. This would inhibit retransfers of weapons to third countries which in the past have been unfriendly to the U.S. or whose activities do not meet U.S. foreign policy objectives. However, the President cannot prevent or police illegal retransfers, especially with nations with whom the U.S. has no diplomatic ties.

The sixth and final point of the statement addressed the role of U.S. embassies and military representatives in foreign locales who are engaged in arms transfers. It specifically prohibits U.S. representatives serving abroad from promoting arms sales and requires State Department authorization for any promotion on the part of company representatives. Historically DoD officials have helped U.S. companies promote foreign arms sales as a matter of national policy. This new direction would bar such DoD involvement, thus leaving sales initiatives more in the hands of the State Department, guided by White House policy. The argument is made that in this manner future arms sales will be more in concert with U.S. foreign policy and not primarily tied to military goals as prescribed by the Pentagon without State Department approval.

Since May 1977, the Administration has given much thought to its arms transfer policy. It is now apparent that two major factors—instability in many Third World countries and the inability of the United States' unilateral

actions to influence arms sales policies of the other suppliers—have prompted the President to modify his original posture. It could well be that the current year will be the end of Mr. Carter's arms transfer restraint program, should he base that policy on the multilateral agreements that he hopes to extract from the other suppliers, especially the USSR.

On November 29, 1978 (Appendix B), just before a round of restraint talks were to begin with the Soviets, the President announced a FY 1979 arms sales ceiling of \$8.43 billion, a reduction of approximately \$700 million from the \$9.17 billion (1979 dollars) set for FY 1978. In establishing ceilings, NATO countries, Japan, Australia and New Zealand were excluded. With sales to those allies amounting to about \$5 billion annually, total sales by the U.S. to all countries were slightly over \$13.5 billion in FY 1978.

During his term in office, President Carter has assigned high priority to effecting reductions in worldwide arms sales. However, his strategy of unilaterally restraining U.S. sales—with the hope of gaining equal restraints from the USSR, France and Britain—has not been a success. As a result, the President now recognizes that the U.S. must reassess its policy and he notes that, "the U.S. had taken the first steps at conventional arms restraints, but that we could not go very far alone. Multilateral cooperation remains essential to the achievement of meaningful restraint measures."

A policy statement, "Restraint of Conventional Arms Transfers," released by the Department of State in December 1978 (Appendix C) sets forth in explicit terms

the current U.S. policy on foreign arms transfer:

Arms transfers often advance basic U.S. foreign policy and security interests. We intend to continue making transfers that serve the legitimate defense needs of allies and close friends—whom we will not disadvantage if their adversaries are being armed. However, we do not want to exacerbate local conflicts or contribute to instability in regions where excessive arms transfers might have that effect. We have tried to develop an approach that allows us to protect our foreign policy and security interests in making transfers and to bring about restraint where it is in our interest to do so. For example, the U.S.

- does not approve arms transfers automatically.
- gives consideration to U.S. interests and the long-term implications of transfers; and
- seeks the cooperation of other states in exercising arms restraint.

The impact of a restricted arms transfer policy on world stability is difficult to assess. It is a demonstrated fact that if the U.S. does not sell arms to a certain nation, other countries, such as France, Britain, West Germany, or the USSR will, despite the President's hope for multilateral restraint. It seems that for the next few years at least, until emerging countries have satisfied their military needs, world arms sales—and with them technology transfers—will grow. There is no sound military or foreign policy reason to believe otherwise.



## **B. Position of the Aerospace Industries Association**

### **1. Issue**

Positive arguments for military exports include the strengthening of U.S. allies and other "friendly" countries, together with maintenance of U.S. influence abroad. Military exports, therefore, can further U.S. foreign policy goals.

Others argue, however, that increasing sales actually endanger world peace, and that the U.S. does not always gain the influence it desires through arms transfers. Some politicians and citizens contend that, through sales of sophisticated weapons to Third World countries, the U.S. is increasing the capabilities of these countries to wage war. Moreover, there is some feeling that the high technology industries play a vital role in both U.S. military and economic security which will be jeopardized if other countries obtain the technology.

The aerospace industry does not believe it proper to engage in debate on the political aspects of arms sales. Political decisions should be made by those in government given that responsibility by the people.

The aerospace industry does believe, however, that military exports by the United States have a positive effect on the nation's security and economy in several ways, including employment levels, tax contributions, stimulus to Gross National Product (GNP), balance of trade, recycling of Middle East petrodollars, savings to DoD in the cost of U.S. weapons, and the maintenance of production lines which might otherwise be shut down at considerable cost. With few U.S. military aircraft programs and other major systems in planning status, these factors become increasingly important to the economic viability of U.S. defense contractors. As domestic military programs are phased down—and often out—and as foreign competition intensifies, U.S. companies are being forced more and more to look to sales opportunities abroad in both military and commercial markets.

In the economic debate, opponents of foreign military sales maintain that the necessity of making special concessions for foreign orders eliminates most cost savings to the U.S. government, and that such savings are minimal in relation to overall defense spending. They also contend that foreign sales of military goods should not be considered a measure to offset the current U.S. deficit in the balance of trade, and that the contribution of such sales to domestic employment is highly debatable.

### **2. Position**

As the Brookings Institution stated in its study, "Arms

Across the Sea," President Carter's move to restrict arms sales "was a bold step, because Persian Gulf and Middle Eastern nations have received the largest share of U.S. arms exports in the recent past, and in both areas the U.S. has much at stake and is under strong political and economic pressure to grant requests for military equipment."

While this study does not address military and foreign policy issues, it is nevertheless fitting to note herein the aerospace industry's views concerning the sale of military equipment to foreign nations. AIA holds that arms sales are not in themselves bad and that many sales contribute to the U.S. economy as well as to furtherance of U.S. foreign policy objectives.

However, it is not the province of the manufacturer to make political or policy decisions, nor would aerospace firms want to make such decisions. The aerospace industry looks to the Congress and the Executive Branch to make sales judgments carefully, intelligently and expeditiously, and to help American industry deal with foreign customers within the policy framework set forth by the government.

If the government wishes to constrain arms transactions, it should embargo arms sales totally. Everyone—manufacturers and customers alike—would then know where the U.S. stands. If not, and if the government acknowledges that certain sales are valid, such sales should be allowed to go forward. Manufacturers should receive full government support in satisfying the buyer as to technical specifications, delivery schedule, pricing, establishment of logistic and support systems, training of personnel and furnishing of follow-on support. If government impedes the flow of such information, industry cannot assure prompt and effective implementation of valid arms transactions.

It is clear that if a restricted arms transfer policy were carried out over a number of years, the impact would include loss of jobs, damage to the technical base of certain industries and significant overall economic loss to several regions of the U.S. In particular, the aerospace, electronics and communications industries would suffer great losses in sales and employment, and the government would lose substantial tax revenue. The midwest and west coast states, where the aerospace industry is mainly based, would suffer consequent economic damage and the loss of an important national resource.

On February 10, 1978, AIA submitted to the U.S. House of Representatives Committee on International Relations a statement setting forth the aerospace industry's views on foreign arms transfer. A brief of that statement is contained in Appendix D.



# U.S MILITARY EXPORTS 1970-1978

## A. Definition of Terms

U.S. military exports include two types of sales and two types of grant aid.

Sales to foreign governments may be arranged through the Department of Defense (DoD), whereby DoD endeavors to recover its full costs of the personnel effort and administrative costs involved. These sales are defined as *Foreign Military Sales*, or FMS, a term often mistakenly used to include all foreign military aid or sales. Military sales to a foreign government directly arranged by a producing company are defined as *Com-*

*mercial Sales* and must be approved and licensed by the Department of State.

Grant aid currently is given to qualifying countries under the *Military Assistance Program* (MAP). Prior to the termination of the Vietnam conflict, *Military Assistance Service Funded* programs (MASF) were also included. Generally, a country qualifying for grant aid is one considered to be incapable of paying for defense articles essential to mutual security without significantly reducing its rate of economic growth.

There are other avenues by which military equipment

**Table 1**  
**U.S. MILITARY EXPORT ORDERS**

FY 1970-1978  
(Millions of Dollars)

	1970	1971	1972	1973	1974	1975	1976 <sup>4</sup>	1977	1978
<b>TOTAL<sup>1</sup></b>	\$3,960	\$4,897	\$6,944	\$9,155	\$12,439	\$15,052	\$13,607	\$11,618	\$13,787
<b>Foreign Military Sales (FMS)</b>	1,156	1,389	3,066	4,480	10,741	13,938	13,233	11,342	13,534
<b>Military Assistance Program (MAP)<sup>2</sup></b>	2,176	3,051	3,473	4,209	1,526	1,053	269	251	221
<b>Excess Defense Articles<sup>3</sup></b>	543	385	394	419	124	28	79	1	—
<b>Commercial</b>	na	na	na	na	na	na	na	na	na
<b>International Military Education and Training Program</b>	85	72	61	47	48	33	26	24	32

na not available

<sup>1</sup>Total excludes commercial orders

<sup>2</sup>Includes Military Assistance Service Funded & excludes training

<sup>3</sup>Acquisition cost. Includes MASF programs

<sup>4</sup>Includes transitional quarter (1971) of \$1.175 billion

SOURCE *Foreign Military Sales & Military Assistance Facts, December 1978*, Security Assistance Agency, Department of Defense

NOTE Grant Aid funded between FY66 and FY75 in support of activities in South East Asia was a part of the regular DoD appropriation and was identified for programming purposes as Military Assistance Service Funded (MASF) programs  
FMS are sales arranged through the U.S. Government to a foreign government. Commercial sales are direct sales from a U.S. company to a foreign government

**Table 2**  
**U.S. MILITARY EXPORT DELIVERIES/EXPENDITURES**  
FY 1970-1978  
(Millions of Dollars)

	1970	1971	1972	1973	1974	1975	1976 <sup>3</sup>	1977	1978(P)
<b>(1) CURRENT DOLLARS</b>									
<b>TOTAL</b>	<b>\$4,643</b>	<b>\$5,028</b>	<b>\$5,529</b>	<b>\$7,118</b>	<b>\$5,867</b>	<b>\$5,978</b>	<b>\$7,778</b>	<b>\$8,847</b>	<b>\$9,463</b>
Foreign Military Sales (FMS)	1,342	1,372	1,461	1,516	3,178	3,479	5,933	7,132	7,699
Military Assistance Program (MAP) <sup>1</sup>	2,283	2,693	3,170	4,770	1,832	1,816	366	108	243
Excess Defense Articles <sup>2</sup>	511	474	364	375	305	103	45	59	5
Commercial	438	428	481	362	502	547	1,407	1,523	1,485
International Military Education & Training Program	69	61	53	95	50	33	27	25	31
<b>(2) CONSTANT DOLLARS</b>									
<b>1972 = 100</b>									
<b>TOTAL</b>	<b>\$5,082</b>	<b>\$5,238</b>	<b>\$5,529</b>	<b>\$6,728</b>	<b>\$5,057</b>	<b>\$4,701</b>	<b>\$5,816</b>	<b>\$6,247</b>	<b>\$6,221</b>
Foreign Military Sales (FMS)	1,469	1,429	1,461	1,433	2,739	2,736	4,436	5,036	5,062
Military Assistance Program (MAP) <sup>1</sup>	2,499	2,805	3,170	4,509	1,579	1,428	274	76	160
Excess Defense Articles <sup>2</sup>	559	494	364	354	263	81	34	42	3
Commercial	479	446	481	342	433	430	1,052	1,075	976
International Military Education & Training Program	76	64	53	90	43	26	20	18	20

<sup>1</sup>Includes Military Assistance Service Funded & excludes training

<sup>2</sup>Acquisition cost Includes MASF Programs

<sup>3</sup>Includes Transitional Quarter FY1977

(P) Preliminary

SOURCE: *FMS and Military Assistance Facts, December 1978*, Security Assistance Agency, Department of Defense

NOTE: Commercial exports are those for which licenses are given by the Office of Munitions Control, Department of State

may be exported, foremost among them being the transfer of Excess Defense Articles (EDA), items taken out of the U.S. defense inventory in times of emergency or special circumstances and provided to foreign nations.

#### **B. U.S. Military Export Orders and Deliveries, 1970-78**

Total military export orders (Table 1) rose from \$4.0 billion in FY 1970 to \$13.8 billion in FY 1978; the backlog of orders at the end of 1978 was \$37.5 billion. Up to 1972, the majority of exports were arranged under the grant aid programs (MAP and MASF), but since then Foreign Military Sales have replaced grants as the principal means of arms transfers. In 1970 FMS orders were \$1.2 billion and grant orders \$2.2 billion; in 1978 FMS orders reached \$13.5 billion while grant orders dropped to \$221 million.

Commercial orders have increased steadily throughout the 1970-78 period, although figures are available only for deliveries, since orders placed directly with com-

panies do not have to be recorded with the U.S. government. Commercial deliveries (Table 2) rose from \$438 million in 1970 to an estimated \$1.5 billion in 1978. In recent years there has been a trend towards larger individual commercial sales. In 1976, for example, Saudi Arabia placed a \$1.4 billion order—for improved Hawk anti-aircraft missiles—directly with the U.S. producer. Congressional legislation passed in 1976, however, placed a \$25 million limit on individual commercial orders for countries other than NATO nations, Japan, Australia and New Zealand.

In addition to the shift of emphasis from grant aid to sales, there has also been a change in the export destination pattern (Tables 3 and 4). With the decline in military assistance to South East Asia, in particular Vietnam and South Korea, three Middle East countries became major purchasers of U.S. equipment; Iran, Saudi Arabia, and Israel accounted for 64 percent of FMS orders between 1970 and 1978. Other new customers, mostly in the



**Table 3**  
**Total FMS & MAP<sup>1</sup> Orders by Region**

FY 1970-1978  
(Millions of Dollars)

REGION	VALUE			PERCENT OF TOTAL		
	FMS	MAP	TOTAL	FMS	MAP	TOTAL
Canada	\$ 631.4	—	\$ 631.4	0.9%	—%	0.7%
Latin America	944.0	48.7	992.7	1.3	0.3	1.1
Europe	13,687.9	700.3	14,388.2	18.8	4.3	16.1
Middle East	48,991.9	380.6	49,372.5	67.2	2.4	55.4
Asia	5,453.0	14,711.1	20,164.1	7.5	90.6	22.6
Oceania	1,508.5	—	1,508.5	2.1	—	1.7
Africa <sup>2</sup>	1,151.9	81.1	1,233.0	1.6	0.5	1.4
Other <sup>3</sup>	510.7	307.6	818.3	0.7	1.9	0.9
<b>TOTAL</b>	<b>\$72,879.3</b>	<b>\$16,229.4</b>	<b>\$89,108.7</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

TOP 5 CUSTOMERS, FMS			TOP 5 CUSTOMERS, MAP		
COUNTRY	VALUE	PERCENT OF TOTAL	COUNTRY	VALUE	PERCENT OF TOTAL
Iran	\$20,010.4	27.5%	Vietnam	\$10,043.6	61.9%
Saudi Arabia	18,649.4	25.6	Korea	1,831.0	11.3
Israel	7,575.1	10.4	Kampuchea	1,094.2	6.7
W. Germany	3,027.4	4.1	Laos	950.1	5.9
Korea	1,988.1	2.7	Thailand	394.0	2.4
<b>TOTAL</b>	<b>\$51,250.4</b>	<b>70.3%</b>		<b>\$14,312.9</b>	<b>88.2%</b>

<sup>1</sup>MAP includes Military Assistance Service Funded and excludes training

<sup>2</sup>includes Morocco, Libya and Tunisia and excludes Egypt

<sup>3</sup>includes FMS to International Organizations and General, Regional and other costs of MAP

SOURCE: *Foreign Military Sales & Military Assistance Facts, December 1978*, Security Assistance Agency, Department of Defense

Third World, were previously neither traditional U.S. allies nor highly militarized. Since World War II, the emergence of more than 75 new nations has resulted in formation of a comparable number of new defense establishments. Some of these nations are Third World countries which have recently experienced improved economic conditions and are now able to purchase military equipment.

A key point to be noted in all foreign arms transfers is the increasing technological sophistication of items now being sold in substantial quantities. For example, the current generation of fighter aircraft. The cost of military items, particularly aircraft, has increased rapidly partly because of their high level technological content and partly because of the effects of inflation.

Exports under the Excess Defense Articles (EDA) and International Military Education and Training Programs are small compared to those effected through sales and grants. Deliveries of EDA (Table 2) declined from \$543

million in 1970 to none in 1978, while the respective figures for the training program were \$69 million and \$31 million. This trend reflects lessened U.S. involvement in South East Asia and increased efforts to promote stability between Arab nations and Israel.

It is important to note the substantial difference between orders and deliveries in any one year. Although in 1978 FMS *orders* were \$13.8 billion, *deliveries* amounted to only \$7.6 billion. The long lead-time and extended delivery schedules involved in the production of military items are partly responsible. In addition, Congress or the Executive Branch can delay or slow the rate of deliveries of orders for political, military, economic or foreign policy reasons. Moreover, customers have been known to cancel sales contracts, or—as in the case of Iran and Nicaragua—overthrow of the government has occasioned changing policies with regard to equipment purchases.

DoD reports to Congress stress orders, not deliveries



Industry, on the other hand, reports deliveries, since many factors can intervene to stop a sale between the time the order is placed and the time the sale is consummated by actual delivery. Such reporting practices lead to great misunderstanding and lack of communication, and they provide both "friend and foe" separate sets of data by which either may further his position. As a final confusion, the ultimate price is not usually established until time of delivery—not at time of order placement.

To analyze the effects of inflation during the period studies, the value of deliveries was converted into constant 1972 dollars using the GNP deflator (Table 2). Using constant figures, total military exports rose between 1970 and 1978, from \$5.1 billion to \$6.2 billion. The shift from grant aid to sales is evident in the fact that FMS increased from \$1.5 billion to \$5.1 billion while MAP/MASF exports decreased from \$2.5 billion to \$160 million. Constant dollar comparison shows that the considerable increase of 79 percent in current dollars is in

large measure the result of inflation, and that the decline in grant aid was balanced by the rise in FMS and commercial exports.

### C. Product Category

Between 1950 and 1978, approximately \$96 billion worth of goods and services have been delivered under the FMS and MAP programs—\$72 billion in procurement of goods and \$24 billion for services. Combining goods and services, FMS amounted to nearly \$41 billion while MAP accounted for about \$55 billion (Table 5).

Aircraft, vehicles, and weapons—including missiles—are the leading items of export, although communications equipment exceeds the value of missiles delivered through MAP. Missiles sold under the FMS program, however, have more than four times the value of communications equipment exported.

With a value of \$31.1 billion, aircraft exports account for nearly 37 percent of all FMS orders. Under MAP, aircraft, with 17 percent of the total, is exceeded by two

**Table 4**  
**Total FMS and MAP<sup>1</sup> Deliveries by Region**

FY 1970-1978  
(Millions of Dollars)

REGION	VALUE			PERCENT OF TOTAL		
	FMS	MAP	TOTAL	FMS	MAP	TOTAL
Canada	\$ 537.9	\$ —	\$ 456.2	1.6%	—%	1.1%
Latin America	725.8	74.8	691.7	2.2	0.4	1.7
Europe	7,316.2	743.7	6,879.1	22.1	4.3	16.9
Middle East	20,580.6	275.5	14,240.1	62.2	1.6	35.0
Asia	2,508.1	15,768.4	17,064.6	7.6	91.3	42.0
Oceania	736.0	—	508.0	2.2	—	1.2
Africa <sup>2</sup>	433.8	93.1	319.9	1.3	0.5	0.8
Other <sup>3</sup>	273.3	325.4	510.3	0.8	1.9	1.3
Total	\$33,111.7	\$17,280.9	\$40,669.9	100.0%	100.0%	100.0%
TOP 5 CUSTOMERS, FMS			TOP 5 CUSTOMERS, MAP			
COUNTRY	VALUE	PERCENT OF TOTAL		COUNTRY	VALUE	PERCENT OF TOTAL
Iran	\$ 8,478.1	25.6%		Vietnam	\$10,786.9	62.4%
Saudi Arabia	5,985.3	18.1		Korea	2,067.6	12.0
Israel	5,188.7	15.7		Kampuchea	1,094.0	6.3
W. Germany	2,985.3	9.0		Laos	1,002.7	5.8
United Kingdom	987.1	3.0		Turkey	493.2	2.9
TOTAL	\$23,624.5	71.4%			\$15,444.4	89.4%

<sup>1</sup> MAP includes Military Assistance Service Funded and excludes training

<sup>2</sup> Includes Morocco, Libya and Tunisia and excludes Egypt

<sup>3</sup> Includes FMS to International Organizations and General Regional and other costs of MAP

SOURCE: *Foreign Military Sales & Military Assistance Facts*, December 1978, Security Assistance Agency, Department of Defense

**Table 5**  
**FMS and MAP Orders and Deliveries by Category**  
**FY 1950-1978**  
**(Millions of Dollars)**

	Foreign Military Sales				Military Assistance—Grant Aid			
	Ordered	% of Total	Delivered	% of Total	Programmed	% of Total	Delivered	% of Total
<b>TOTAL</b>	<b>\$84,611</b>	<b>100%</b>	<b>\$40,971</b>	<b>100%</b>	<b>\$55,430</b>	<b>100%</b>	<b>\$54,847</b>	<b>100%</b>
Aircraft (including spares)	\$31,105	36.8%	\$15,497	37.8%	\$ 9,515	17.2%	\$ 9,322	17.0%
Ships (including spares)	4,354	5.1	879	2.2	2,295	4.1	2,263	4.1
Vehicles & Weapons (including spares)	6,653	7.9	4,548	11.1	9,785	17.6	9,678	17.6
Ammunition	3,935	4.6	2,748	6.7	11,210	20.2	11,175	20.4
Missiles (including spares)	7,717	9.1	4,419	10.8	1,428	2.6	1,366	2.5
Communications Equipment (including spares)	1,995	2.4	1,244	3.0	2,773	5.0	2,682	4.9
Other Equipment & Supplies	2,590	3.1	1,806	4.4	5,251	9.5	5,215	9.5
<b>Total Procurement</b>	<b>\$58,349</b>	<b>69.0%</b>	<b>\$31,141</b>	<b>76.0%</b>	<b>\$42,257</b>	<b>76.2%</b>	<b>\$41,701</b>	<b>76.0%</b>
Construction	\$11,084	13.1%	\$ 3,165	7.7%	\$ 1,028	1.8%	\$ 1,029	1.9%
Repair & Rehabilitation of Equipment	980	1.2	566	1.4	982	1.8	974	1.8
Supply Operations	2,828	3.4	1,319	3.2	4,797	8.7	4,796	8.7
Training	2,745	3.2	1,486	3.7	1,924	3.5	1,922	3.5
Technical Assistance Special Services	8,564	10.1	3,271	8.0	4,442	8.0	4,425	8.1
<b>Total Non-Procurement</b>	<b>\$26,201</b>	<b>31.0%</b>	<b>\$ 9,807</b>	<b>24.0%</b>	<b>\$13,173</b>	<b>23.8%</b>	<b>\$13,145</b>	<b>24.0%</b>
Unidentified and Adjustments	\$ 61	—	\$ 23	—	—	—	—	—

SOURCE: *FMS and Military Assistance Facts, December 1978*. Security Assistance Agency, Department of Defense

other categories of exports: ammunition, with over 20 percent, and vehicles and weapons, with almost 18 percent.

#### D. The Role of Aerospace in Military Exports

In recent years, the positive effects of military exports on the economy have increased, owing to the large deficit in the U.S. balance of trade (Table 6). In 1978, the total aerospace trade surplus (including military and non-military) amounted to \$8.4 billion. Military aerospace exports contributed nearly 42 percent of total aerospace exports. The proportion of arms exports to total U.S. exports decreased during the period in review, from 11 percent in 1970 to 7 percent in 1976, but this trend is due primarily to the fact that total exports more than

doubled during that period. Arms exports, however, are still an important element of total U.S. exports.

#### E. World Military Exports, 1970-1977

According to the Arms Control and Disarmament Agency, nine countries accounted for about 97 percent of world military exports in the period 1964-73: U.S. 51 percent, Soviet Union 27 percent, United Kingdom, France and the Peoples' Republic of China 10 percent and Czechoslovakia, Poland, Canada and West Germany 8.5 percent.

In 1976, the five leading exporters (Table 8) were the U.S., Soviet Union, France, United Kingdom and West Germany. Other major exporters were the Peoples' Republic of China, Italy and Canada. The Soviet Union is



the leading exporter to the Third World, according to the Stockholm International Peace Research Institute Yearbook for 1975, outstripping the U.S. by 12 percent from 1950-1974 and by 50 percent in 1974. In addition to the less developed countries (LDCs), Soviet arms have been directed primarily to the Warsaw Pact countries, North Vietnam and Syria.

In 1976, total world military exports amounted to \$13.4 billion, of which the U.S. share was \$5.2 billion and the Soviet Union's \$3.7 billion. Soviet deliveries, however,

are most probably understated because of difficulties in collecting full information, definition of military equipment, problems of converting rubles to dollars and the likelihood that some Soviet deliveries to Warsaw Pact nations are excluded in Soviet arms reporting.

France's share of total world military exports has risen from \$20 million in 1970 to \$84 million in 1976, when its arms exports accounted for 1.5 percent of the country's total exports. A major item of arms export for France was the Mirage aircraft delivered to Israel. During the same

**Table 6**  
**U.S. Military Exports Deliveries as a Percent of**  
**Selected Economic Indicators**  
**1970-1978**  
**(Billions of Dollars)**

	1970	1971	1972	1973	1974	1975	1976	1977	1978 <sup>E</sup>
Gross National Product (GNP)	\$982.4	\$1,063.4	\$1,171.1	\$1,306.6	\$1,412.9	\$1,528.8	\$1,700.1	\$1,887.2	\$2,114.3
National Defense Expenditures	78.6	75.8	76.6	74.5	77.8	85.6	111.7 <sup>2</sup>	97.5	107.6
Total U.S. Exports, Including DoD Shipments	42.6	43.5	49.0	70.2	97.1	106.6	113.7	119.0	137.3
Total U.S. Military Exports <sup>1</sup>	4.7	4.9	5.6	7.2	\$ 5.7	5.9	7.8 <sup>2</sup>	8.8	9.5
As a Percent of:									
GNP	0.48%	0.46%	0.48%	0.55%	0.40%	0.39%	0.46%	0.47%	0.45%
National Defense Expenditures	6.0%	6.5%	7.3%	9.7%	7.3%	6.9%	7.0%	9.0%	8.8%
Total U.S. Exports	11.0%	11.3%	11.4%	10.3%	5.9%	5.5%	6.9%	7.4%	6.9%
Total Aerospace Exports <sup>3</sup>	\$ 3.4	\$ 4.2	\$ 3.8	\$ 5.1	\$ 7.1	\$ 7.8	\$ 7.8	\$ 7.5 <sup>4</sup>	\$ 9.3
Military Aerospace Exports	0.9	1.1	0.8	1.4	1.8	2.5	2.2	2.5	4.0
As a Percent of:									
Total Military Exports	19.1%	22.4%	14.3%	19.4%	31.6%	42.4%	28.2%	28.4%	42.1%
Total Aerospace Exports	26.5%	26.2%	21.1%	27.5%	25.4%	32.1%	28.2%	33.3%	43.0%

<sup>1</sup>These figures are taken from Table 2 and are higher than those from source 2, below. The higher set was chosen to show maximum impact.

<sup>2</sup>Includes transitional quarter, FY1977.

<sup>3</sup>Estimated, excluding transitional quarter FY1977.

<sup>4</sup>1977 & 1978 are based on revised Schedule B export classifications and are not consistent with prior data.

SOURCES: 1 GNP, *Economic Report of the President*, January 1978.

2 *The Budget of the U.S. Government*, Fiscal Year 1979.

3 Aerospace Exports, *Aerospace Facts and Figures, 1978-79*, Aerospace Industries Association.

4 Military Exports, *FMS and Military Assistance Facts*, Security Assistance Agency, December 1977.

5 Total Exports, *Highlights of U.S. Export and Import Trade*, Bureau of the Census, Department of Commerce, October 1978.



**Table 7**  
**The Importance of Aerospace in U.S. Balance of Trade**  
1978

COMMODITY CLASSIFICATION	(\$ Millions)		
	Exports	Imports	Balance of Trade
Food and Live Animals	\$18,333	\$14,510	\$ 3,833
Beverage and Tobacco	2,293	2,429	(136)
Crude Materials (inedible)	15,553	10,036	5,517
Mineral Fuels, Lubricants, etc.	3,878	44,729	(40,851)
Animal and Vegetable Oils and Fats	1,521	545	976
Chemicals	12,618	6,778	5,840
Manufactured Goods Classified by Material	12,466	29,221	(16,755)
Machinery and Transport Equipment	59,270	50,429	8,841
Misc. Manufactured Articles	10,191	20,416	(10,225)
Commodities and Transactions Not Classified According to Kind	5,030	4,045	985
<b>SIGNIFICANT SECTORS INCLUDED IN MACHINERY AND TRANSPORT EQUIPMENT</b>			
Aerospace Products	10,001	943	9,058
Special Purpose Machinery	8,001	3,776	4,225
General Industrial Machinery and Equipment	7,402	3,184	4,218
Office Machines and Computers	5,006	2,336	2,670
Power Generating Machinery (Includes Aircraft Engines)	5,663	3,351	2,312
Electrical Machinery	6,967	5,361	1,606
Metalworking Machinery	1,188	1,003	185
Radio, TV, and other Telecommunications Equipment	2,689	6,406	(3,717)
Automobiles, Buses, Trucks and Parts	13,235	16,999	(3,764)
<b>ANALYSIS OF AEROSPACE BALANCE OF TRADE</b>			
Total Aerospace Products	10,001	943	9,058
Civil (Including Transports)	6,018	938	5,080
Transport Aircraft	2,558	58	2,500
Military	3,983	5	3,978

Source: *Highlights of U.S. Export and Import Trade*, F1990 December 1978  
U.S. Department of Commerce

period, the U.K.'s share fell from \$8 million to \$6.4 million. West Germany's exports increased from \$19 million in 1970 to \$66 million in 1976.

In November 1978, the U.S. Central Intelligence Agency (CIA) released an unclassified report, "Arms Flow to LDCs: U.S. Soviet Comparisons, 1974-77." The findings from the agency's National Foreign Assessment Center are noteworthy, for in the four-year period studied, the USSR delivered to the less developed countries more fighter aircraft, tanks, anti-aircraft guns and artillery units than did the U.S. Although fewer in number, the Soviets provided ships of greater aggregate value than did the U.S. America delivered more trainer and transport aircraft, helicopters, armored personnel car-

riers, and self-propelled artillery units than did the USSR (Tables 9 and 10).

"Going beyond the numerical count," the CIA wrote, "we find that, on the whole, better provision was made for support and maintenance of U.S. than of Soviet equipment in the LDCs. Washington also provided more advisory personnel in LDCs than did Moscow, and a larger number of LDC military technicians were trained in the United States than in the Soviet Union."

#### **F. Impact of Military Exports on the U.S. Economy**

Until the recent increase in orders for foreign military sales, evaluations of the export program were based mainly on foreign policy and national security issues.

**Table 8**  
**World's Five Leading Exporters of Military Items**  
1970-1976  
(Billions of U.S. Dollars)

	1970	1971	1972	1973	1974	1975	1976
<b>USA</b>							
GNP	\$996.4	\$1077.7	\$1183.0	\$1318.6	\$1425.7	\$1516.6	\$1691.5
Total Military Expenditures	77.9	74.9	77.6	78.4	85.6	90.9	91.0
as % of GNP	7.8%	7.0%	6.6%	5.9%	6.0%	6.0%	5.4%
Total Exports	43.2	44.1	49.8	71.3	98.5	108.0	115.0
Arms Exports	3.1	3.4	4.1	5.0	4.2	4.9	5.2
as % Total Military Expenditures	4.0%	4.5%	5.3%	6.4%	4.9%	5.4%	5.7%
as % of Total Exports	7.2%	7.7%	8.2%	7.0%	4.3%	4.5%	4.5%
<b>SOVIET UNION</b>							
GNP	555.8	606.1	642.8	722.5	832.7	922.0	1007.7
Total Military Expenditures	67.0	73.0	81.0	90.0	103.0	115.0	127.0
as % of GNP	12.1%	12.0%	12.6%	12.5%	12.4%	12.5%	12.6%
Total Exports	12.8	13.8	15.4	21.3	27.4	33.3	37.1
Arms Exports	1.5	1.6	2.8	5.0	4.2	3.8	3.7
as % Total Military Expenditures	2.2%	2.2%	3.5%	5.6%	4.1%	3.3%	2.9%
as % of Total Exports	11.7%	11.6%	18.2%	23.5%	15.3%	11.4%	10.0%
<b>FRANCE</b>							
GNP	202.4	223.8	245.6	274.3	314.0	336.9	371.0
Total Military Expenditures	8.5	9.0	9.6	10.5	11.7	13.1	14.2
as % of GNP	4.2%	4.0%	3.9%	3.7%	3.7%	3.9%	3.8%
Total Exports	18.1	20.8	26.5	36.7	46.3	53.1	57.2
Arms Exports	.20	.15	.73	.86	.70	.65	.84
as % Total Military Expenditures	2.4%	1.7%	7.6%	8.2%	6.0%	5.0%	5.9%
as % of Total Exports	1.1%	0.7%	2.8%	2.3%	1.5%	1.2%	1.5%
<b>UNITED KINGDOM</b>							
GNP	151.7	163.0	174.0	195.1	215.2	228.5	242.6
Total Military Expenditures	7.3	8.1	9.0	9.5	10.9	11.5	12.6
as % of GNP	4.8%	5.0%	5.2%	4.9%	5.1%	5.0%	5.2%
Total Exports	19.4	22.4	24.4	30.7	38.9	44.1	46.3
Arms Exports	.08	.18	.47	.58	.54	.50	.64
as % Total Military Expenditures	1.1%	2.2%	5.2%	6.1%	5.0%	4.3%	5.1%
as % of Total Exports	0.4%	0.8%	1.9%	1.9%	1.4%	1.1%	1.4%
<b>FEDERAL REPUBLIC OF GERMANY</b>							
GNP	283.6	306.6	329.3	365.9	404.4	424.1	469.7
Total Military Expenditures	9.3	10.2	11.3	12.6	14.5	15.3	16.0
as % of GNP	3.3%	3.3%	3.4%	3.4%	3.6%	3.6%	3.4%
Total Exports	34.2	39.1	46.7	67.6	89.3	90.2	102.0
Arms Exports	0.19	0.13	0.33	0.14	0.20	0.39	0.66
as % Total Military Expenditures	2.0%	1.3%	2.6%	0.1%	1.4%	2.5%	4.1%
as % of Total Exports	0.5%	0.3%	0.7%	0.2%	0.2%	0.4%	0.6%
<b>Total World Military Exports</b>	<b>\$ 5.9</b>	<b>\$ 6.4</b>	<b>\$ 9.9</b>	<b>\$ 13.0</b>	<b>\$ 11.3</b>	<b>\$ 12.0</b>	<b>\$ 13.4</b>

SOURCE: *World Military Expenditures and Arms Transfers, 1967-76*. U.S. Arms Control and Disarmament Agency



Now, however, the increasing scale of the program has led to widespread debate on the economic consequences of such exports. Important issues include employment and savings in the cost of arms. The impact on GNP and total exports has been covered in the previous section (Tables 6, 7, and 8).

#### 1. Employment

Table 11 shows the estimated employment impact of military export deliveries. Exports generate two types of employment: *direct*, or jobs in the industries producing components and finished goods, and *indirect*, jobs in industries supplying the producing industries. If indirect employment is further taken to include employment necessary to provide consumer goods and services for those directly employed, then indirect may reach as much as 1.7 times direct employment according to the "multiplier effect" as calculated by the Wharton Econo-

metrics Model. Indirect employment as calculated by the Bureau of Labor Statistics in supplying industries varied between 99 percent and 94 percent of direct employment from 1973 to 1975.

The total number of jobs created by military exports in 1973, in both public and private sectors, was approximately 616,000. By 1978 this number had fallen to 541,000. However, the proportion of jobs generated by foreign military sales climbed from 130,400 to 440,600. With the increasing importance of foreign military sales in the total military export program, it would appear that the proportion of jobs associated with military exports will remain fairly constant, given continuation of the current Administration's policies.

Employment impact of military exports on the aerospace industry is considerable. In 1973, over 76,000 jobs were supported by total aerospace military exports.

**Table 9**  
**United States and USSR: Deliveries of Selected Weapon Systems to LDCs**

Units

	United States					USSR				
	1974-77	1974	1975	1976	1977	1974-77	1974	1975	1976	1977
AIRCRAFT										
Jet fighters.....	1,352	326	345	376	305	1,376	335	246	317	478
Jet bombers.....	0	0	0	0	0	19	0	12	7	0
Jet trainers.....	229	59	48	54	68	8	0	4	0	4
Jet transports.....	92	21	30	18	23	58	0	5	19	34
Reconnaissance, other military	34	4	7	8	15	0	0	0	0	0
Helicopters.....	471	138	146	117	70	247	43	58	88	58
SHIPS										
Destroyers.....	52	23	11	7	11	88	20	25	14	29
Destroyer escorts.....	5	2	1	1	1					
Patrol, landing craft.....	216	71	73	33	39					
Minesweepers and minelayers	28	11	3	13	1					
Submarines.....	16	12	2	0	2					
LAND										
Armored vehicles.....	6,209	1,651	1,391	1,242	1,925	4,513	1,183	1,092	1,195	1,043
Tanks.....	2,246	832	512	453	449	3,955	1,290	480	853	1,332
Self-propelled guns.....	1,763	573	344	283	563	83	0	29	24	30
Antiaircraft guns.....	112	42	34	9	27	1,171	395	300	183	293
Artillery.....	312	130	85	30	67	1,873	407	595	346	525
Mortars.....	1,931	968	664	115	184	1,326	445	823	4	54
Rocket launchers.....	789	26	33	5	725	3,056	715	2,136	76	129

\*Estimated calendar years

Source: Arms Flows to LDCs: U.S. Soviet Comparisons, 1974-77  
U.S. Central Intelligence Agency, November 1978



**Table 10**  
**United States and USSR: Arms Deliveries to LDCs in U.S. Dollar Costs**  
(Million 1976 U.S. Dollars)

	United States					USSR				
	1974-77	1974	1975	1976	1977	1974-77	1974	1975	1976	1977
Total .....	\$20,101	\$4,049	\$4,633	\$5,239	\$6,180	\$14,775	\$3,718	\$3,071	\$3,611	\$4,375
<b>WEAPON SYSTEMS</b> .....	7,868	1,642	1,825	2,018	2,383	8,555	2,180	1,653	2,076	2,646
Aircraft .....	5,475	1,059	1,281	1,485	1,650	4,417	940	913	1,124	1,440
Ships .....	123	33	33	26	31	989	307	226	228	228
Land armaments .....	1,359	383	358	309	309	2,449	830	403	526	690
Missiles .....	911	167	153	198	393	700	103	111	198	288
<b>SUPPORT</b> .....	7,352	1,666	1,785	1,850	2,051	4,830	1,248	1,068	1,145	1,369
Communications/radar .....	302	63	62	93	84	282	81	66	49	86
Major support equipment .....	703	121	211	227	144	318	97	92	86	43
Spare parts, other support .....	4,730	910	1,067	1,222	1,531	2,140	460	520	520	640
Ammunition, other ordnance .....	1,617	572	445	308	292	2,090	610	390	490	600
<b>SERVICES</b> .....	4,881	741	1,023	1,371	1,746	1,390	290	350	390	360
Construction .....	1,602	167	326	500	609	40	10	10	10	10
Training .....	516	97	124	130	165	170	50	60	30	30
Technical assistance .....	1,566	169	268	452	677	1,180	230	280	350	320
Supply operations .....	730	216	205	160	149	NA	NA	NA	NA	NA
Other .....	467	92	100	129	146	NA	NA	NA	NA	NA

NA: Not available

\*Estimated calendar years

\*Costs of producing comparable weapon systems and support equipment in the United States, including all appropriate export charges, and estimates of the costs of spare parts, ordnance, and related military services

Source: *Arms Flows to LDCs: U.S. Soviet Comparisons, 1974-77*

U.S. Central Intelligence Agency, November 1978

In 1978, when the U.S. unemployment rate was more than six percent, military exports generated 148,000 jobs for the aerospace industry.

## 2. Savings in the Cost of Arms

Two main sources of the value to the U.S. from foreign military sales are (1) partial recovery of research and development (R & D) costs and, (2) lower per unit production costs. Maintenance of a production base is a third source of savings, but it is difficult to identify and quantify.

A study conducted by the Congressional Budget Office (CBO) in May 1975, "Foreign Military Sales and U.S. Weapons Costs", found that in some cases exports produce substantial savings against the total U.S. program costs of a weapon. R & D cost recoveries were identified as the single largest source of foreign military sales savings, because in government-to-government sales, DoD may pass on to the foreign customer a proportionate share of these costs. Unit costs, which include R & D

investment, are thereby lowered by increased production for export.

CBO found that savings for some weapons systems could be as much as 15 percent of the weapon's procurement costs in any given fiscal year and 8 percent of its total R & D costs. These savings,—for the TOW missile launcher and the F-14 fighter respectively—were the largest individual savings found by the study.

Procurement cost savings come primarily in sales of high technology systems, particularly such aerospace industry products as fighter aircraft and missiles. For other items, such as ships, ammunition and artillery, CBO found little or no cost savings. Thus, CBO argues, the relationship between restrictions on military exports and cost of weapons to DoD will most probably depend on the technological complexity of the product rather than the quantity of sales.

Another CBO publication, "The Effect of Foreign Military Sales on Cost of U.S. Weapons", April 1976, esti-



**Table 11**  
**Employment Impact of U.S. Military Export Deliveries**  
FY 1973-1978

	1973	1974	1975	1976	1977	1978
<b>EMPLOYMENT REQUIREMENTS OF TOTAL MILITARY EXPORT PROGRAM</b>						
Total, public & private sectors	616,000	478,400	427,800	534,200	548,300	541,300
Total, private sector	392,600	296,600	270,100	330,600	346,600	351,500
Direct <sup>1</sup>	200,200	151,300	137,800	168,600	176,800	179,300
Indirect	192,400	145,300	132,300	162,000	169,800	172,200
<b>EMPLOYMENT REQUIREMENTS OF FOREIGN MILITARY SALES DELIVERIES</b>						
Total, public & private sectors, Direct and Indirect	130,400	267,400	252,100	405,700	444,900	440,600
<b>EMPLOYMENT REQUIREMENTS OF MILITARY AEROSPACE EXPORT DELIVERIES, PRIVATE SECTOR</b>						
Total	76,200	93,700	114,500	93,200	98,400	148,000
Direct	38,900	47,800	58,400	47,500	50,200	75,500
Indirect	37,300	45,900	56,100	45,700	48,200	72,500

<sup>1</sup>Direct employment is generated in the producing industries and indirect employment in supplying industries. Indirect employment does not include that generated by providing consumer goods and services for employees.

SOURCE: *Foreign Defense Sales and Grants FY1973-75, Labor & Material Requirements*, Bureau of Labor Statistics, Department of Labor, 1977.

mated that for a sales "mix" in which approximately 50 percent of the sales offered savings potential, total savings were 7 percent of sales and 2 percent of R&D. For the \$9.5 billion sales in 1978, total savings would therefore amount to about \$665 million. R&D savings would account for an additional \$190 million.

Another type of saving—reduction in U.S. weapons requirements—is potentially more important than those already mentioned because the equipment strengthens recipient countries. This is by far the most difficult to identify, much less quantify. In this case, the customer becomes a major factor. The United States' three main cus-

tomers have been Israel, Iran and Saudi Arabia. Thus, the bulk of recent sales has not strengthened traditional NATO allies nor improved regional stabilization, although such transfers have helped to recycle Middle East petrodollars.

For countries with which the U.S. has a clear defense commitment, particularly those in NATO, military exports should reduce the number and therefore the cost of weapons needed by the U.S. Opponents of foreign military sales contend that other countries could use the weapons to pursue goals conflicting with those of the U.S., and that this may actually lead to an increase in weapons needed by the U.S. This fear, however, has little historical validity.

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# RECOMMENDATIONS

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A U.S. refusal to make certain arms sales, and together with the establishment of restrictive ceilings which make unfilled foreign requirements a certainty, has generated two major consequences.

First, foreign suppliers have rushed to fill the vacuum. France has stated that there would be no French restraint until multilateral agreements on restraints exist. The Germans are quietly selling naval ships in Latin America and elsewhere. Other western European countries and the USSR are eager to ship arms to any country willing to place an order, or, in the case of the Soviets, where foreign policy objectives can be achieved.

The second consequence of U.S. restraint on arms sales is the rapid development of indigenous arms production capabilities in many countries. Japan, Israel, Brazil, Korea, and the five countries comprising the Arab Organization of Industries either are exporters of munitions at the present time, or plan to become exporters in the

future. As a direct result of U.S. abstention in arms sales to Latin America, Brazil is in the process of forming joint ventures with the French, Germans, British, Belgians and Italians to develop major weapons plants for supplying the Latin American market. The Brazilian goal is an arms export level of \$1 billion by 1980.

Unilateral arms restraint is at best a well-intentioned but unrealistic policy, as is the ever-diminished ceiling. These actions have constrained government and industry decision-making with serious negative consequences, and they are jeopardizing and antagonizing friends and allies. AIA therefore recommends that:

- The arms sales ceiling be abandoned;
- Each proposed arms sale be judged on its own merits, and
- The national security and foreign policy goals of the U.S. be the basic criterion for arms transfers.



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## THE WHITE HOUSE

### STATEMENT BY THE PRESIDENT CONVENTIONAL ARMS TRANSFER POLICY

The virtually unrestrained spread of conventional weaponry threatens stability in every region of the world. Total arms sales in recent years have risen to over \$20 billion, and the United States accounts for more than one half of this amount. Each year, the weapons transferred are not only more numerous, but also more sophisticated and deadly. Because of the threat to world peace embodied in this spiralling arms traffic, and because of the special responsibilities we bear as the largest arms seller, I believe that the United States must take steps to restrain its arms transfers.

Therefore, shortly after my Inauguration, I directed a comprehensive review of U.S. conventional arms transfer policy, including all military, political, and economic factors. After reviewing the results of this study, and discussing those results with members of Congress and foreign leaders, I have concluded that the United States will henceforth view arms transfers as an exceptional foreign policy implement, to be used only in instances where it can be clearly demonstrated that the transfer contributes to our national security interests. We will continue to utilize arms transfers to promote our security and the security of our close friends. But, in the future, the burden of persuasion will be on those who favor a particular arms sale, rather than those who oppose it.

To implement a policy of arms restraint, I am establishing the following set of controls, applicable to all transfers except those to countries with which we have major defense treaties (NATO, Japan, Australia, and New Zealand). We will remain faithful to our treaty obligations, and will honor our historic responsibilities to assure the security of the state of Israel. These controls will be binding *unless* extraordinary circumstances necessitate a Presidential exception, or where I determine that countries friendly to the United States must depend on advanced weaponry to offset quantitative and other disadvantages in order to maintain a regional balance.

1. The dollar volume (in constant FY 1976 dollars) of new commitments under the Foreign Military Sales and Military Assistance Programs for weapons and weapons-related items in FY 1978 will be reduced from the FY 1977 total. Transfers which can clearly be classified as services are not covered, nor are commercial sales, which the U.S. Government monitors through the issuance of export licenses. Commercial sales are already significantly restrained by existing legislation and Executive Branch policy.

2. The United States will not be the first supplier to introduce into a region newly-developed, advanced weapons systems which would create a new or significantly higher combat capability. Also, any commitment for sale or coproduction of such weapons is prohibited until they are operationally deployed with U.S. forces, thus removing the incentive to promote foreign sales in an effort to lower unit costs for Defense Department procurement.

3. Development or significant modification of *advanced* weapons systems *solely for export* will not be permitted.

4. Coproduction agreements for significant weapons, equipment, and major components (beyond assembly of subcomponents and the fabrication of high-turnover spare parts) are prohibited. A limited class of items will be considered for coproduction arrangements, but



with restrictions on third-country exports, since these arrangements are intended primarily for the coproducer's requirements.

5. In addition to existing requirements of the law, the United States, as a condition of sale for certain weapons, equipment, or major components, may stipulate that we will not entertain *any* requests for retransfers. By establishing at the outset that the United States will not entertain such requests, we can avoid unnecessary bilateral friction caused by later denials.

6. An amendment to the International Traffic in Arms Regulations will be issued, requiring policy level authorization by the Department of State for actions by agents of the United States or private manufacturers which might promote the sale of arms abroad. In addition, embassies and military representatives abroad will not promote the sale of arms and the Secretary of Defense will continue his review of government procedures, particularly procurement regulations, which may provide incentives for foreign sales.

In formulating security assistance programs consistent with these controls, we will continue our efforts to promote and advance respect for human rights in recipient countries. Also, we will assess the economic impact of arms transfers to those less-developed countries receiving U.S. economic assistance.

I am initiating this policy of restraint in the full understanding that actual reductions in the worldwide traffic in arms will require multilateral cooperation. Because we dominate the world market to such a degree, I believe that the United States can, and should, take the first step. However, in the immediate future, the United States will meet with other arms suppliers, including the Soviet Union, to begin discussions of possible measures for multilateral action. In addition, we will do whatever we can to encourage regional agreements among purchasers to limit arms imports.

## Appendix B

November 29, 1978

Office of the White House Press Secretary

### THE WHITE HOUSE STATEMENT BY THE PRESIDENT

Conventional arms transfer restraint is an important objective of this Administration and the Congress. To insure U.S. leadership and to supplement existing legislation, I established for the first time a set of quantitative and qualitative standards by which arms transfer requests considered by this Government would be judged. The principal consideration in the application of these standards is whether the transfer in question promotes our security and the security of our close friends.

I am pleased to announce that this Government has kept its pledge to take the leadership in restraining arms sales. Under the ceiling I established, U.S. Government transfers of weapons and related items to countries other than NATO, Japan, Australia, and New Zealand which totaled \$8.54 billion in FY 1978 were reduced by 8 percent (or approximately \$700 million measured in constant dollars) from the comparable FY 1977 level.

When I set this goal last year, I said that I would make further reductions in the next fiscal year. Today, I am announcing an additional cut of approximately \$733 million\* or 8 percent for FY 1979 measured in constant dollars. This means that for the fiscal year that began in October 1, 1978, and which will end on September 30, 1979, new commitments under the foreign military sales (FMS) and military assistance (MAP) programs for weapons and weapons-related items to all countries except NATO, Japan, Australia, and New Zealand will not exceed \$8.43 billion. This cut is consistent with our national security interests, including our historic interest in the security of the Middle East.

When I addressed the United Nations General Assembly in October 1977, I emphasized that the U.S. had taken the first steps at conventional arms restraint, but that we could not go very far alone. Multilateral cooperation remains essential to the achievement of meaningful restraint measures. We continue to believe that all nations have an interest in restraining transfers of conventional weaponry which threaten the stability of various regions of the world and divert recipient resources from other worthy objectives without necessarily enhancing cooperation on the arms restraint issue.

My decision on U.S. arms transfer levels for FY 1980 will depend on the degree of cooperation we receive in the coming year from other nations, particularly in the area of specific achievements and evidence of concrete progress on arms transfer restraint.

#### \*FY 1979 Ceiling on Conventional Arms Transfers (\$ Millions)

FY 1978 Ceiling	\$8551
Inflation (7.2%)	<u>+616</u>
FY 1978 Ceiling in FY 1979 Dollars	9167
Policy Reduction	<u>-733</u>
FY 1979 Ceiling	\$8434



## Appendix C

December 1978

### RESTRAINT OF CONVENTIONAL ARMS TRANSFERS

1. **Background:** Since 1970, Western and Eastern suppliers have made arms transfer commitments of about \$140 billion to developing countries. Most of this equipment has not yet been delivered, much less absorbed. When these arms are delivered and when the recipients learn to use them, however, they will change the character of world politics. For the first time, many countries throughout the world will have weapons of much the same sophistication and quality as those of the major powers.
2. **US policy:** Arms transfers often advance basic US foreign policy and security interests. We intend to continue making transfers that serve the legitimate defense needs of allies and close friends—whom we will not disadvantage if their adversaries are being armed. However, we do not want to exacerbate local conflicts or contribute to instability in regions where excessive arms transfers might have that effect. We have tried to develop an approach that allows us to protect our foreign policy and security interests in making transfers and to bring about restraint where it is in our interest to do so. For example, the US:
  - does not approve arms transfers automatically;
  - gives consideration to US interests and the long-term implications of transfers; and
  - seeks the cooperation of other states in exercising arms restraint.
3. **Multilateral cooperation:** Our strategy for obtaining multilateral cooperation is based on the need to deal with the major Western European suppliers, with the Soviets and their allies, and with the recipients. The cooperation of other countries—suppliers and recipients—is essential if we are to sustain our own policy of restraint. Until recently, the international environment has been hostile to the idea of restraint, and we recognized that initially we would be engaged in a process of persuasion. Our European allies indicated that restraint could pose serious problems, particularly for their defense industries. They also said that before they could seriously consider restraint, we would have to be sure that the Soviets would cooperate.

4. **US-Soviet talks:** Our first meeting with the Soviets to discuss arms transfers took place in December 1977. By the end of the second meeting in May 1978, the Soviets had moved from a negative position on restraint to agreement that unrestrained arms transfers are a serious problem. They also agreed to meet with us regularly. In our third meeting in July 1978, we developed a framework for approaching restraint and subjecting arms transfers to arms control considerations; we also agreed to explore concrete steps that might be taken in the near future. A fourth meeting was held in Mexico City in December 1978. At that meeting, we continued to make progress in defining a framework for restraint, although much work remains to be done.
5. **International concern:** The international climate for restraint has been improving because arms recipients have begun to recognize that restraint could serve their interests. For example, as long as they are not put at a unilateral military disadvantage, many arms purchasers in the developing world would prefer to spend their limited funds for development. The Final Document of the UN Special Session on Disarmament—SSOD (June 1978) called for consultations "among major arms suppliers and recipient countries on the limitation of all types of international transfer of conventional weapons." This is the first international endorsement for restraint. Immediately after the SSOD, the Latin American countries began discussing among themselves the possibilities of developing a restraint regime for that region. We support such regional efforts.
6. **Outcome:** We do not underestimate the difficulty of achieving restraint, as the security and economic interests of many countries are involved. If successful, our effort could have several outcomes. One would be an international treaty, although formal agreements probably are not the most effective approach to this complicated problem. Other more realistic possibilities include harmonized national guidelines for transfer restraint and regional or subregional restraint arrangements.

Source: GIST, Bureau of Public Affairs, Department of State, December 1978



## **Appendix D**

Condensation of a  
STATEMENT OF  
AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.  
SUBMITTED FOR RECORD OF  
HEARINGS ON FOREIGN MILITARY SALES  
BEFORE THE  
SUBCOMMITTEE ON INTERNATIONAL SECURITY AND  
SCIENTIFIC AFFAIRS  
COMMITTEE ON INTERNATIONAL RELATIONS  
U.S. HOUSE OF REPRESENTATIVES

February 10, 1978

Conventional arms transfers is an area of obvious interest to our membership, inasmuch as aircraft and missiles constituted 48 percent of total foreign military sales delivered between 1950 and FY 1977. It is an area in which our member companies have long worked hand in hand with the United States Government to pursue certain foreign policy aims.

This is also an enormously complex subject which has excited considerable controversy in the past several years. We believe that public discussions of arms transfer issues and legislation have been handicapped by the failure to identify which of two basically conflicting assumptions is, or should be, controlling in making arms transfer decisions. These assumptions are:

- That higher armament levels generally increase the risk of conflict and that lower levels are therefore desirable; or
- That an increase in defense capability by the weaker of two potential adversaries—creating a level of balance between them—reduces the likelihood of conflict between them and is therefore desirable.

The first assumption seems to figure prominently in the rationale behind arms restraint legislation and recent Executive Branch actions and the second is more widely embraced by individuals in both Government and industry involved in specific transactions. We believe this breakdown to be significant because the first assumption, which seems to enjoy some popularity with legislators and Executive Branch officials, is the more abstract and seems to sidestep certain very real elements of judgment and decisionmaking.

In our view, the vital elements of judgment which should be applied to arms sales were comprehensively and succinctly stated by Rep. Stephen J. Solarz in his address of November 28, 1977, before the American Defense Preparedness Association. On that occasion, Congressman Solarz outlined 13 general reasons why a given arms transfer should be favored and 12 general reasons which would militate against such a transfer. Because we cannot improve on these well thought-out conditions, we would like to summarize them as follows:

### **THIRTEEN REASONS TO FAVOR A SALE**

1. By arming our allies, we strengthen the collective security of ourselves and our friends.
2. If we make a friendly nation strong, we are less likely to have to intervene in its behalf.

3. By creating or maintaining a regional balance of power, the outbreak of war itself may be obviated.
4. Sale of arms helps solidify political relationships with the recipients.
5. Sale of arms can help make some countries more dependent on us and less dependent on the Soviet Union or China.
6. Just as willingness to sell arms will solidify a relationship with a given country, refusal to do so can lead to a sharp deterioration in a relationship.
7. To the extent we do become a major supplier to a country, that country becomes dependent on us for replacements and spare parts.
8. If we believe in the right of self-determination, we must surely recognize the right of nations to determine their own military needs.
9. Arms sales make a positive contribution to our balance of trade.
10. Sale of arms abroad means the likelihood of more jobs at home.
11. Sale of arms abroad reduces the cost of arms for domestic use.
12. If we don't sell, others will. (This is not a popular argument, but no one ever denies that it is true.)
13. Our willingness to sell conventional arms can prevent countries from pursuing a nuclear alternative.

#### **TWELVE REASONS TO REFUSE A SALE**

1. Selling weapons in volatile areas can exacerbate old rivalries.
2. By selling arms to both sides in the same conflict, we may do a disservice to our political principles.
3. Just as arms sales can create a regional balance of power, they can create a regional arms race.
4. The countries who are our allies now could be controlled by our enemies tomorrow, and those enemies would then control the arms we sold.
5. While the sale of arms can increase our influence, it could increase it to the degree that we could get involved in wars not of our choosing.
6. Within a conflict, heavily armed adversaries are likely to take more lives and cause more destruction than inadequately armed opponents.
7. Many of our sales go to repressive regimes more interested in oppressing their own people than in defending themselves from relatively nonexistent foreign threats.
8. Sale of arms to poorer countries can result in diversion of limited economic resources from development to defense.
9. Selling our most sophisticated weapons to other countries before they are in use in the United States puts our security second.
10. Selling advanced weaponry escalates the risk of these arms falling into enemy hands.
11. Despite restrictions, weapons sold abroad often are used for aggressive rather than defensive purposes.
12. While others may well sell if we don't, we are not responsible for their actions, only for our own.



Obviously all or even most of these considerations, either pro or con, would not apply to a given transaction, but some of them will always apply and others will apply as the transaction matures. It is a delicate, complex, judgmental situation. Therefore we would agree with Congressman Solarz when he concluded:

"I have to confess that I am uncomfortable in the presence of those who insist on the simplification of the complex, and who believe that arms sales are either an unmitigated evil, or an unassailable good. Arms sales in general, it seems to me, are neither good nor evil. In the abstract, they are neither helpful nor harmful to the national interest. But arms sales in specific may be one or the other, and whether they are or aren't is something which can only be rationally determined on a case by case basis."

Of course, the Government has the right, indeed the obligation, to oversee foreign sales; but in our view the six policy guidelines issued by President Carter on May 19, 1977, and the dollar ceiling represent exactly the type of oversimplification referred to by Congressman Solarz.

Our position on the dollar ceiling for arms sales hinges on the assertion that there are a great many valid arms sales proposed in a given year—valid in terms of the 25 pros and cons and valid in terms of the needs of our allies. Put simply, imposition of a ceiling virtually nullifies the case-by-case approach and, in the process, raises innumerable other difficulties.

On a strictly philosophical basis, an arms ceiling is based on several highly questionable assumptions. First, it addresses itself to the symptom, the amount of arms sold, not to the disease, the presence of threats and insecurity in the world. Second, it puts the Government in the position of ruling that a sale is valid simply because it is below a certain, arbitrary number and invalid simply because it brings the total above such a number.

Operationally, and more insidiously in our view, imposition of a ceiling replaces the enormously complicated decisionmaking process alluded to earlier with a simple, and we think simplistic, determination as to where the request falls in the fiscal year. In so doing, it puts equal constraints on sales central to U.S. interests and those only marginally so. This is in complete contradiction to the 25 point, case-by-case judgmental method of approving or disapproving arms sales.

In addition, a ceiling will impose on would-be buyers a "Monte Carlo" mentality, in which they must look warily over their shoulders at the armaments decisions of other countries, which are not, and should not be, any of their business. If the ceiling is administered on a first-come-first-served basis, there will be a tendency for countries to propose sales which have not sufficiently matured as to need and financing, so as to be considered while there is still "room" under the ceiling.

If the ceiling is administered on a quota basis, the Government will be required to distinguish between various regions, which could have serious foreign policy repercussions. More importantly, however, countries will naturally tend to utilize all of their quota so as to avoid having unmet demands in later years and thus the so-called ceiling will actually become a floor, possibly escalating arms sales beyond what they would have been in the





***aerospace research center***

1725 DE SALES STREET, N.W., WASHINGTON, D.C. 20036