

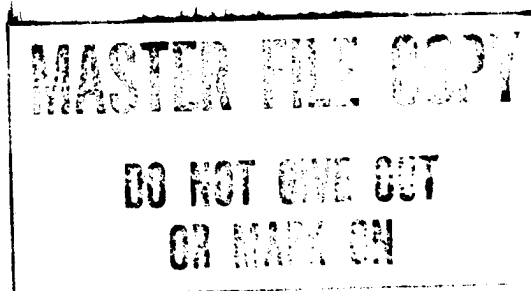


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## Third World Arms Exporters: Recent Developments and Patterns



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A Research Paper

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GI 83-10154  
June 1983

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# **Third World Arms Exporters: Recent Developments and Patterns**

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**A Research Paper**

This paper was prepared by [redacted]  
the International Security Issues Division, Office of  
Global Issues. It was coordinated with the  
Directorate of Operations. [redacted]

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Comments and queries are welcome and may be  
directed to the Chief, Weapons Proliferation Branch,  
OGI [redacted]

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**Third World Arms Exporters:  
Recent Developments  
and Patterns**

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**Summary**

*Information available  
as of 10 June 1983  
was used in this report.*

The increased presence of Third World weapons on world battlefields and the attention paid to Third World defense industries by arms trade journals have given an exaggerated impression of the manufacturing capabilities and export potential of Third World arms suppliers:

- Third World countries remain heavily dependent on traditional suppliers for weapons designs and production technology.
- Third World efforts to develop indigenous weapons have been retarded by budgetary and technical problems.
- Most Third World suppliers have been unable to provide the follow-on support, financing, and security commitments that often accompany arms sales.

Because of these constraints, we do not expect Third World suppliers to make major inroads into the global arms market. Last year Third World suppliers accounted for about 5 percent of the world arms trade with sales approaching \$3 billion. During the next several years, we anticipate that these suppliers will increasingly find themselves in competition with traditional suppliers even for sales of less advanced armaments. To preserve their markets, we believe Third World suppliers will continue their laissez faire sales policies while slowly increasing the technological sophistication of their offerings.

Even if their share of world arms sales shrinks, Third World suppliers will continue to play several important roles:

- Supplying used and new military equipment to maintain or rebuild the armed forces of belligerent nations.
- Helping poorer less developed countries modernize their arsenals with moderately sophisticated weapons.
- Providing other Third World countries with experienced military advisers and instructors.
- Supporting both insurgents and governments combating insurgents with appropriate weapons and support.

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In particular, several countries bear watching:

- Israel will continue to combine foreign technology with indigenous design efforts and skilled labor forces to produce high-quality weapons systems.
- Brazil should move beyond the production of light armored vehicles and trainer aircraft to the manufacture of fighter aircraft and tactical missiles.
- Singapore will complement its small arms industry with the assembly and refurbishment of jet attack aircraft, missile patrol boats, and armored vehicles.
- South Korea will energetically seek exports of small arms and crew-served weapons to sustain its underutilized defense industries.

We doubt that these or other Third World suppliers will produce sophisticated weapons which are directly competitive with advanced US systems. Nevertheless, they will export weapons that are less than state of the art but give recipients new capabilities to threaten their neighbors, US interests, or US allies.

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## Third World Arms Exporters: Recent Developments and Patterns

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### Introduction

Recent international conflicts have highlighted the role of Third World countries as arms producers and suppliers.<sup>1</sup> Israel's successful use of domestically produced, remotely piloted vehicles in Lebanon, Libya's transfer of SA-9 surface-to-air missiles to Syria, and Argentina's widespread search for Exocet missiles during the Falklands war attracted media coverage. Trade journals have recently published numerous articles on Third World defense industries, often basing their analyses on promotional information provided by Third World manufacturers. This extensive media coverage has generated the impression that Third World countries have substantial arms manufacturing capabilities and export potential.

This report examines that impression, looking closely at the roles Third World arms suppliers play in the global arms market. Particular attention is paid to the way Third World states acquire production technology, the amount and types of equipment and services they provide, and their prospects for future arms sales. A series of appendixes provides more detailed information on the motivations, offerings, and prospects of these arms suppliers.

### Third World Arms Sales

#### Market Share

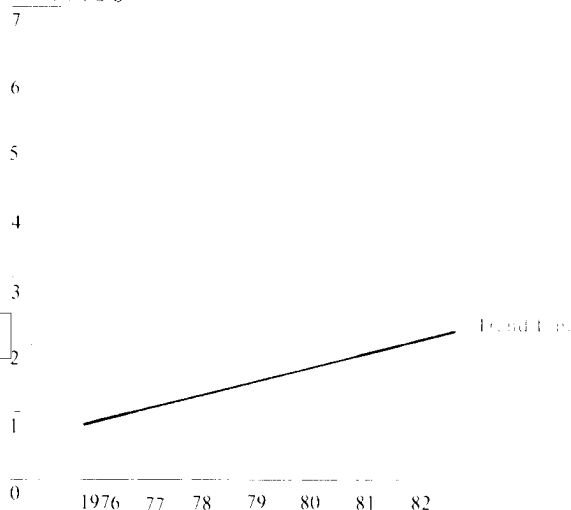
Third World arms suppliers have sold \$14 billion worth of military equipment and services during the past seven years (figure 1).<sup>2</sup> After a record year in 1981—when the Iran-Iraq war boosted sales by Third World suppliers to almost \$6 billion, or 17 percent of

<sup>1</sup> For the purposes of this paper, *Third World* will refer to all countries except members of the Warsaw Pact and NATO as well as Australia, Austria, China, Finland, Ireland, Japan, New Zealand, Switzerland, and Sweden. The term *arms sales* refers to all agreements to provide arms, support equipment, military construction, training, and related services.

<sup>2</sup> Information on specific sales and aggregate data are from coordinated . . . We regard these figures as minimum estimates because of the difficulty of confirming individual transactions.

**Figure 1**  
**Third World Arms Sales**

Billion US \$



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world arms—market sales in 1982 slipped to less than \$3 billion, returning Third World arms suppliers to their traditional 3- to 5-percent market share (tables 1 and 2). During 1976-82:

- Middle Eastern countries accounted for 61 percent of known Third World arms sales, as Brazil, Yugoslavia, North Korea, and Egypt cultivated ties with wealthy oil-producing states (figure 2).
- Latin American buyers turned to Brazil and Israel for ground forces equipment and aircraft, absorbing 20 percent of all sales.
- Asia and the Pacific became primary arms export markets for South Korea and Singapore, accounting for 9 percent of all Third World sales.

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**Table 1**  
**Shares of the International Arms Market**

*Percent*

	1976	1977	1978	1979	1980	1981	1982
United States	50	30	41	36	32	28	43
Non-US NATO	13	25	32	24	32	18	23
Other <sup>a</sup>	2	2	3	2	2	3	1
USSR	28	36	14	27	28	21	21
Non-Soviet Warsaw Pact	3	5	6	5	3	5	4
China	1	NEGL	1	1	1	8	3
Third World	3	2	3	5	2	17	5

<sup>a</sup> Austria, Ireland, Finland, Sweden, Switzerland, Japan, New Zealand, and Australia.

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**Table 2**  
**Major Third World Suppliers: Arms Sales**

*Million US \$*

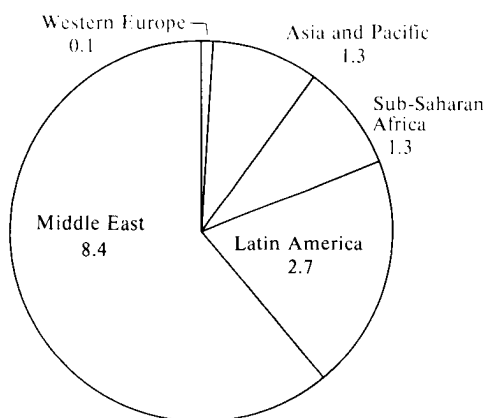
Country	Total	1976	1977	1978	1979	1980	1981	1982
<b>Total</b>	<b>13,214</b>	<b>1,014</b>	<b>644</b>	<b>1,105</b>	<b>1,787</b>	<b>1,109</b>	<b>5,402</b>	<b>2,650</b>
Yugoslavia	2,942	543	158	115	414	157	880	675
Brazil	2,205	30	82	260	81	89	1,220	443
South Korea	2,200	206	88	133	168	240	1,247	118
Israel	1,786	79	86	246	212	121	534	508
North Korea	1,470	80	5	124	130	421	613	97
Egypt	898	14	42	76	13	29	204	520
Saudi Arabia	670	0	22	102	55	10	481	NEGL
Libya	473	0	20	12	89	7	75	270
Pakistan	152	5	32	16	1	4	89	5
South Africa	150	3	47	3	93	NEGL	1	NEGL
Singapore	137	18	8	9	19	15	58	10
India	131	36	54	9	12	16	0	4

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**Figure 2**  
**Third World Arms Sales,**  
**by Region, 1976-82**

Billion US \$



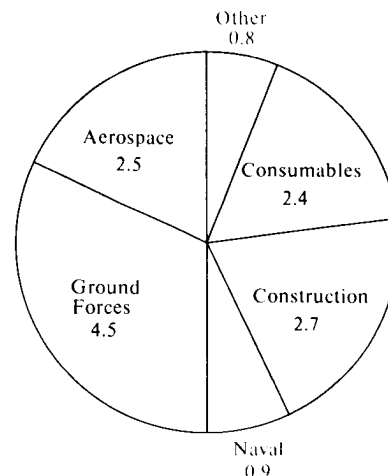
Total: 13.8



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**Figure 3**  
**Third World Arms Sales,**  
**by Equipment, 1976-82**

Billion US \$



Total: 13.8



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#### Equipment

The bulk of Third World arms exports consists of unsophisticated products (figure 3).<sup>3</sup> Nearly one-half of Third World sales are for ground forces equipment and consumables such as quartermaster supplies and spare parts:

- Brazil has built its arms export business by selling a family of light armored vehicles. Israel, India, and South Africa have produced heavier main battle tanks using foreign technology and components but have not yet exported them.
- Israel and Singapore have exported locally designed assault rifles closely resembling Soviet and US models.
- South Korea, North Korea, and Yugoslavia produce a variety of small arms and ammunition that they export throughout the Third World.

<sup>3</sup> Many of the vehicles and aircraft produced by Third World nations are assembled from parts provided by US, Soviet, and West European manufacturers under licensing agreements. See appendix B for a detailed listing of weapons produced by Third World countries.

High-priced items, such as aircraft and naval vessels, account for 25 percent of total Third World arms sales (figure 3). Most of the value of these sales lies in propulsion, electronic, and weapons systems, many of which have been purchased from Western suppliers and installed by Third World manufacturers. Only a handful of indigenously designed aerospace and naval weapons systems have been marketed:

- Israel and Yugoslavia have exported locally designed jet combat aircraft. The Israeli Kfir and Yugoslav Gastreb contain, respectively, US and British engines.
- Israel, Singapore, and South Korea export fast missile attack boats, and Yugoslavia offers a locally designed submarine.
- Israel and South Africa offer the Shafrir and Kukri air-to-air missiles and the Gabriel/Scorpion anti-ship missile.

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The quality of Third World military manufactures varies considerably. Well-designed and carefully produced weapons are available, as are cheap imitations characterized by shoddy workmanship. □

### The Roles of Third World Suppliers

Third World countries perform important roles in the international arms market by providing an alternative source of war supplies, equipment for military modernizations, support for insurgent groups, and training. Many customers, including Argentina, Libya, Iran, and Iraq, have turned to Third World arms suppliers to diversify their sources of armaments and to circumvent restrictions and embargoes imposed by traditional suppliers.<sup>4</sup> Indeed, we have few indications that Third World suppliers attach broad restrictions to their arms sales. □

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- Trade publications acknowledge that pistols produced by Taurus of Brazil are high-quality copies of Italian models, but imitations produced by Egypt are poorly manufactured.
- Attache reports indicate that the light armor and limited mobility of armored vehicles designed and produced in Brazil make them capable of performing only internal security missions, while Israel's Merkava tanks have been designed to survive on modern battlefields.
- The Indian Marut fighter aircraft has been produced in limited numbers because its low thrust-to-weight ratio limits performance; in contrast, the Israeli Kfir has performed well in combat and has been successfully exported. □

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US Embassy reporting indicates that Egypt, Saudi Arabia, and Libya sometimes consider individual sales in terms of regional balances of power:

- Egypt has provided weapons and training to Sudan, Somalia, Oman, and Morocco, in large part to protect moderate Islamic states against radical regimes supported by the Soviet Union.
- Saudi Arabia has given financial and material assistance to Tunisia, Egypt, and Iraq to counter threats from Libya and Iran.
- Libya has supplied Chad, Upper Volta, Central African Republic, and Ghana with advisers and small amounts of military equipment to develop a wider base of support for its policies in Africa.

In many cases, however, these broad political considerations give way to economic concerns. For example, Brazil's Foreign Minister recently stated in a press interview that Brazil never supplies arms if doing so would upset a local balance of power, but Brazil's sales to Iraq and Libya underscore Brazil's overriding commercial interest. □

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In addition to equipment produced domestically, Third World suppliers sell used foreign equipment. We estimate transfers of such equipment, mostly sophisticated weapons produced in the United States, USSR, and Western Europe, account for 10 percent of all sales by Third World suppliers. Used equipment is often attractive because of its relatively low cost, short delivery time, proven performance, and compatibility with existing inventories. Even in small quantities, such weapons can have an immediate impact. Israel, Libya, and Saudi Arabia have transferred used aircraft—Mirage IIIs, MIG-23s, and F-5 Tigers—from their own inventories to Argentina, Syria, and North Yemen, respectively, during times of crisis. □

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### War Supplies

Third World suppliers play an important role during and after conflicts by supplying new and used military equipment and consumables. Deliveries have helped belligerents both to continue fighting and to rebuild their inventories quickly. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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### Defense Modernization

Most Third World suppliers sell weapons of moderate sophistication, which are attractive to many poorer

[REDACTED]

Although data is incomplete, we suspect this assistance amounts to several hundred million dollars each year. [REDACTED] most of the major Third World military suppliers support one or more such groups because of immediate security threats and opportunities to destabilize other regimes. For example, we estimate that Libya alone spent \$200 million on military assistance and training for subnational groups between 1977 and 1981.<sup>5</sup> Other Third World arms suppliers support insurgents out of ideological solidarity. North Korea and Yugoslavia, for example, have provided the Palestine Liberation Organization with training and materiel support. [REDACTED]

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### Insurgencies

Third World suppliers also have become actively involved in providing military assistance to insurgent and dissident groups [REDACTED]

[REDACTED]

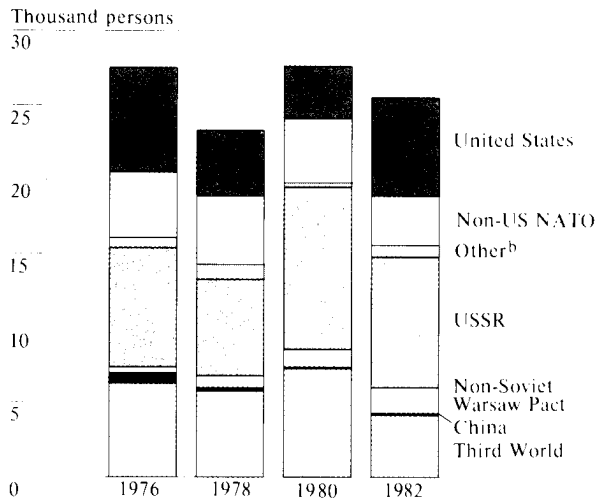
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Third World suppliers also provide arms and assistance to governments combating insurgencies.

### Training

We estimate that Third World arms suppliers have traditionally held some 20 percent of the global training market, a disproportionately large share compared with their share of the arms market (figure 4). We believe that Third World training assistance is in demand because:

**Figure 4**  
**Foreign Students Training**  
**In-Country<sup>a</sup>**



<sup>a</sup> Data rounded to nearest 100.

<sup>b</sup> Austria, Ireland, Finland, Sweden, Switzerland, Japan, New Zealand, Australia.

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apparently believe that reducing their dependence on foreign arms suppliers, particularly for the production of consumables and for the maintenance of major line items, will permit them greater freedom of action in times of crisis and conflict. Indeed, in Third World nations such as Brazil, Egypt, India, Israel, Pakistan, and South Africa the fear of an embargo or actual embargoes appear to have been catalysts for the development and expansion of arms industries (table 4).<sup>6</sup>

Economic considerations often combine with security concerns in justifying the production of conventional arms. We believe these considerations are usually of

<sup>6</sup> We believe most Third World states facing immediate security threats also stockpile weapons and diversify sources of supply to protect their security interests. These alternatives are less expensive than manufacturing arms because they do not involve expenditures for capital equipment, industrial training programs, raw materials, and royalty payments, but stockpiling and diversification lack the tangible economic and political benefits that Third World leaders associate with defense industries, according to Embassy reporting.

### Third World Arms Industries

#### Motivations

Security considerations have been the primary impetus behind the development of most Third World arms industries, according to US Embassy reporting and academic experts. Third World arms producers

**Table 4**  
**Embargoes on Third World Arms Suppliers**

Suppliers	Date	Embargoing Countries	Remarks
Brazil	1977	United States	Human rights violations
Egypt	1948	United States, United Kingdom, France	Tripartite Agreement after 1949 war
	1974	Soviet Union	Suspension of sales and spare parts
India	1965	United States	Indo-Pakistani war
	1971	United States	Indo-Pakistani war
Israel	1949	United States, United Kingdom, France	Tripartite Agreement after 1949 war
	1973	France, United States	End of sales of major items, temporary withholding of battlefield replacements
	1981	United States	Temporary suspension of F-16 deliveries after attack on Iraqi reactor
	1982	United States	Temporary suspension of F-16 deliveries after invasion of Lebanon
Libya		France	Suspension of spares and defense industries equipment
	1980	Italy	Reassessment of sales
	1981	France	Following Libyan invasion of Chad
	1982	United States	Support for terrorism and regional insurgencies
Pakistan	1965	United States	Indo-Pakistani war
	1979	United States	Nuclear proliferation violations
South Africa	1967	UN General Assembly	Recommended embargo
	1977	UN Security Council	Mandatory embargo

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secondary importance, at least initially. Over time, however, they often become the dominant reason for continuing production. Arms manufacturing and exports:

- Reduce imports. Brazil, for example, has reduced its arms imports by 75 percent since 1975, according to Embassy reporting.
- Utilize idle industrial capacity. Singapore has reoriented its commercial aircraft industry to compete for military aircraft service contracts within South-east Asia, according to media reports.
- Open new markets for commercial goods and services.

- Reduce unit costs. Most Third World militaries present a very limited market for domestic defense industries. South Africa, for example, is attempting to increase its foreign arms sales to achieve efficient production runs.

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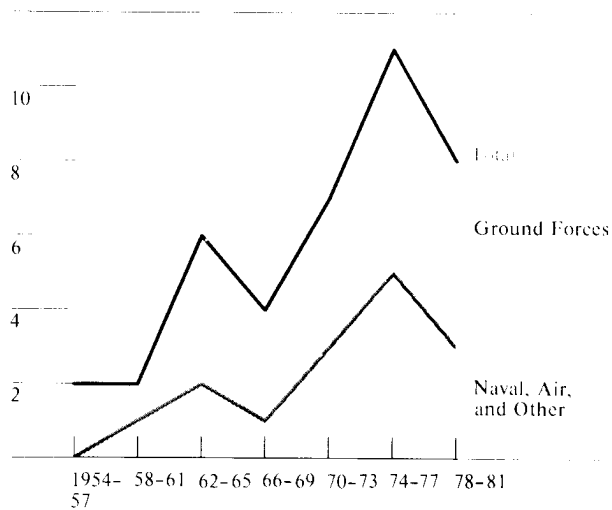
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**Figure 5**  
**Licensing Agreements for Major**  
**Weapons Systems (Annual Average)**

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Indeed, some of the more notable Third World weapons have been produced with considerable foreign assistance.

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***Direct Foreign Assistance.*** Manufacturing technology and modified weapons designs have also been acquired directly from foreign arms industries. This usually occurs when licensed production of an existing weapon system does not fully meet a military requirement and when design and development by the Third World state is either impossible or prohibitively expensive.

\* Formerly the Arab Organization for Industries (AOI).

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**Prospects**

We expect the size of the international arms market to remain constant or decline slightly in real terms through the mid-1980s, largely as a result of the present global economic slowdown and the completion of military modernizations by oil-rich states. In this environment, competition among the major suppliers will increase; we expect them to pay greater attention and offer better terms to even minor customers in order to secure sales for domestic industries. Although this competition will probably prevent Third World suppliers from expanding beyond their traditional market share, they are likely to have annual sales in the \$3 billion range during the next few years.

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We believe Third World military suppliers will be able to compete in the market because their weapons:

- Do not carry the stigma of great power intervention.

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- Are of appropriate sophistication and cost for less wealthy Third World states.
- Can be purchased through barter agreements unacceptable to traditional suppliers. [REDACTED]

- Can be obtained when traditional suppliers impose embargoes. Many customers are likely to maintain ties to Third World suppliers as a hedge against future embargoes. Similarly, we expect recipient nations to patronize Third World suppliers as part of their longstanding policy of diversifying arms purchases. [REDACTED]

Some Third World suppliers will fare better than others. Brazil, North and South Korea, and Yugoslavia will probably preserve some of the recent gains they have made, in part because they produce ammunition and ground forces equipment compatible with Soviet and US weapons. Egypt and Israel should maintain their current sales levels, in part by disposing of surplus Soviet and US equipment. Sales by other suppliers are likely to slip. Overall, we expect competition among Third World suppliers exporting the same type of equipment to increase. Those that lose out may be forced to close inefficient defense industries. [REDACTED]

The technological sophistication of arms offered by Third World suppliers will incrementally improve during the next few years as additional manufacturing technologies are acquired, primarily through licensing agreements. For example, according to trade journals:

- Brazil will begin producing jet attack aircraft and possibly antiship missiles.
- Israel will upgrade its tanks, drones, and missile offerings.
- India will launch its first indigenously designed frigate.
- South Korea plans to develop an antiship missile.
- South Africa will probably begin producing replacements for its jet combat aircraft. [REDACTED]

Third World suppliers will continue to insist on licensing agreements when purchasing weapons from major suppliers. Such agreements provide production technology and the promise of greater military self-sufficiency. We doubt, however, that these agreements will lead to a dramatic increase in self-sufficiency or in the technological sophistication of Third World arms. Rather, we expect that Third World manufacturers will continue to depend on defense industries in the developed world for technical assistance, capital equipment, and major subassemblies like electronics and propulsion systems. In our judgment, the development of advanced weapons of indigenous design will also continue to be plagued by inadequate funding and poor management. [REDACTED]

#### Implications for the United States

The slow diffusion of military production technology to the Third World and the resulting proliferation of conventional arms will reduce the ability of the United States and other developed states to influence the duration and outcome of regional arms races and conflicts. Iran and Iraq, for example, have been able to continue their war despite sales embargoes and reductions in deliveries by the United States, the USSR, and some West European states, in part because of arms delivered by Third World states. In future wars of attrition and insurgencies, where sophisticated arms are of minimal use, the availability of arms from Third World suppliers is likely to permit hostilities to continue. Similarly, the potential of Third World states to supply arms will impede US efforts to use the provision or denial of security assistance as a foreign policy instrument. [REDACTED]

We believe the presence of Third World arms on the international market will also:

- Reduce US exports of trainer aircraft, light armored vehicles, infantry weapons, and quartermaster items. Such sales make up a small portion of the total value of the international arms market, but individual US manufacturers are highly dependent on such sales.

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- Increase the number of requests for third-party transfers and more concessionary marketing arrangements in future licensing agreements. With US security assistance funds declining, many US allies in the Third World will also request US assistance in promoting their arms exports in lieu of funds. Singapore and South Korea have already raised this issue in bilateral decisions.

It is doubtful that Third World industries will produce sophisticated weapons competitive with US aircraft, naval systems, and ground forces equipment at the high end of the capability spectrum. The Israeli Lavi fighter, one of the most advanced pieces of equipment to be manufactured in the Third World in the next few years, is not expected to perform as well as the US F-16, according to trade journals. Third World nations, however, will retain an ability to threaten US and allied forces by transferring sophisticated arms, purchased from the West or the Soviet Bloc, to potential Third World adversaries. British worries about third-party transfers of Exocet missiles to Argentina during the Falklands conflict serve as an example of this potential danger. Moreover, as competition in the international arms market intensifies, Third World suppliers will be tempted to expand the range of military assistance they can provide to potential customers. In some cases, this may include introducing less than state-of-the-art weapons into a region, giving recipients new capabilities which are threatening to their neighbors, to US interests, or to US allies.

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## Appendix A

## Defense Industries of Major Third World Arms Suppliers

Country	Principal Manufacturers	Employment (Number of Persons)	Export Regulation
Brazil	AVIBRAS, ENGESA, EMBRAER, IMBEL	38,000	Presidential authorization
Egypt	Arab Industrial Authority	45,000	High Committee for Industry/Military; Committee for Defense Industry
India	Hindustan Aeronautics, Ltd. Bharat Electronics Ministry of Defense factories (32)	250,000	Ministry of Defense
Israel	Koor Industries Israeli Aircraft Industries	80,000	Special Ministerial Committee on Arms Exports
Libya	None	None	Freedom Movement Section (Army)
North Korea	Ministry of Defense factories	NA	NA
Pakistan	Ministry of Defense facilities	NA	Defense Production Division/Ministry of Defense
Saudi Arabia	None	None	Ministry of Defense
Singapore	Charter Industries Singapore Aircraft Singapore Shipbuilding and Engineering Singapore Automotive Engineering	NA	Ministry of Defense
South Africa	ARMSCOR companies (8) Private firms (700)	105,000	Ministry of Defense
South Korea	Daewoo Corporation Asia Automotive Co. KAI Industrial Co. Korean Airlines	NA	Defense Industry Bureau, Ministry of National Defense
Yugoslavia	Federal Secretariat for National Defense facilities (FSND)	NA	Directorate of Supply and Procurement, FSND

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## Appendix B

## Selected Weapons Produced in the Third World

	Production	Planned	Country
<b>Aerospace</b>			
Fighters		AMX <sup>a</sup>	Brazil
	Ajeet		India
	MIG-21 <sup>b</sup>		India
		MIG-27 <sup>b</sup>	India
	Kfir		Israel
		Lavi	Israel
		MIG-21 <sup>b</sup>	North Korea
	F-5E <sup>b</sup>		South Korea
	Orao I <sup>a</sup>		Yugoslavia
		Orao II	Yugoslavia
Attack/trainer		New supersonic	Yugoslavia
	IA-58 Pucara		Argentina
		IA-61	Argentina
	MB-326 <sup>b</sup>		Brazil, South Africa
	Alpha Jet <sup>b</sup>		Egypt
	Jaguar <sup>b</sup>		India
	HJT-16 Kiran		India
	MKI		
		MB-339 <sup>b</sup>	Peru
	EMB-111		Brazil
Utility	Brazilia ASW		Brazil
		An-32 <sup>b</sup>	India
	Arava 1A1 201		Israel
	Westwind		Israel
Helicopters	Gaviao (Lama) <sup>b</sup>		Brazil, India
	Esquito (Ecureuil) <sup>b</sup>		Brazil
	Alouette III <sup>b</sup>		India, Yugoslavia
	Hughes MD500 <sup>b</sup>		South Korea
Remotely piloted vehicles/decoys	Scout		Israel
	Mastiff		Israel
		X <sup>c</sup>	South Korea

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**Selected Weapons Produced in the Third World (continued)**

	Production	Planned	Country
<b>Missiles</b>			
Air-to-air		Piranha	Brazil
	Shafrir		Israel
		Python	Israel
	V3		South Africa
	Whiplash		South Africa
Antitank	Cobra <sup>b</sup>		Brazil
		MSS-1	Brazil
	Swingfire <sup>b</sup>		Egypt
	SS11-1B <sup>b</sup>		India
		Carl Gustav <sup>b</sup>	India
		Milan <sup>b</sup>	India
	AT-1/3 <sup>b</sup>		North Korea
Antiship		X <sup>c</sup>	Brazil
	Gabriel II	Gabriel III	Israel
		X <sup>c</sup>	South Korea
Antiaircraft	SA-7 <sup>b</sup>		India, North Korea
	SA-2		North Korea
	Cactus (Crotale)		South Africa
Air-to-surface	Luz-1		Israel
<b>Ground forces</b>			
Pistols	9-mm FN HP <sup>b</sup>		Argentina
	9-mm Taurus		Brazil
	9-mm Beretta <sup>b</sup>		Brazil, Israel
	7.65-mm Type 64/68		North Korea
	7.65-mm M70		Yugoslavia
	9-mm M70(k)		Yugoslavia
Submachineguns	9-mm PA3-DM SAG		Argentina
	0.45 INA SMG		Brazil
	9-mm BSM/9 M-3 SMG		Brazil
	9-mm IMBEL MD-1 SMG <sup>b</sup>		Brazil
	9-mm Mekanika Uru SMG		Brazil
	9-mm UZI SMG		Israel
	5.56-mm SMG		South Korea
	7.62-mm M49/57 SMG		Yugoslavia
	7.62-mm M56 SMG		Yugoslavia

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**Selected Weapons Produced in the Third World (continued)**

	Production	Planned	Country
Rifles	7.62-mm FN <sup>b</sup>		Argentina, India
	5.56-mm OVM		Brazil
	AK-47/AKM <sup>b</sup>		Egypt, North Korea
	5.56-mm and 7.62-mm Galil		Israel
	G-3 <sup>b</sup>		Pakistan
	5.56-mm SAR 80		Singapore
	5.56-mm R4 <sup>b</sup> (Galil)		South Africa
	5.56-mm M16 <sup>b</sup>		South Korea, Philippines, Singapore
	5.56-mm K-1		South Korea
	7.62-mm M59/66/70/70A		Yugoslavia
Machineguns	7.62-mm Mekanika Uirapuru GPMG		Brazil
	7.62-mm and 5.56-mm Galil ARM		Israel
	MG1A3P		Pakistan
	5.56-mm Ultimex 100		Singapore
	5.56-mm M60 <sup>b</sup>		South Korea
	7.62-mm M72 LMG		Yugoslavia
Mortars	81/120-mm <sup>b</sup>		Argentina
	81/120-mm		India
	52-mm/60-mm/ 64/81/120		Israel
	60/81/MM; 4.2 inch		South Korea
	50/60/80/120		Yugoslavia
Tanks	TAM		Argentina
		XMB-3	Brazil
		X-30	Brazil
	Vijayanta <sup>b</sup>		India
		MBT-72 <sup>b</sup>	India
		50-mt MBT	India
	Merkava		Israel
	T-62		North Korea
		ROKIT	South Korea
		T-72 <sup>b</sup>	Yugoslavia

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**Selected Weapons Produced in the Third World (continued)**

	Production	Planned	Country
Other armored vehicles	EE-17 Sucuri TD		Brazil
	EE-9 Cascavel AC		Brazil
	EE-11 Urutu APC		Brazil
	Jararaca ARV		Brazil
	RBY Mk1 ARV		Israel
	RATEL APC		South Africa
	Buffel APC		South Africa
	Fiat 6614 APC <sup>b</sup>		South Korea
	M60 APC		Yugoslavia
	M980 APC		Yugoslavia
Artillery		105 mm	Egypt
	75 mm, 105 mm		India
	155 mm (M68SP)		Israel
	105 mm, 155 mm <sup>b</sup>		South Korea
		105 mm, KH179 (155 mm)	South Korea
	G-5 155 mm (G-6 SP)		South Africa
	105 mm, 155 mm		Yugoslavia
Artillery rockets	FSS 2/3/4		Brazil
	108R	X20, X40	Brazil
	Wolf		Israel
	BM-21 MRL		Israel
	SS-17		North Korea
		FROG	North Korea
		130-mm MRL	South Korea
		Nike-Hercules	South Korea
	M-63		Yugoslavia
<b>Naval warships (more than 500 tons)</b>			
Frigates		Saar-5 (850)	Israel
	Niteroi (2,300)		Brazil
	Godavari (3,000)		India
	Ulsan (1,600)		South Korea
Corvettes		Meko 140 (1,200) <sup>b</sup>	Argentina
		X (1,600) <sup>c</sup>	Brazil
	X (1000) <sup>c</sup>		India
Submarines		Type 209 (1,150) <sup>b</sup>	Brazil
		Type 1500 (1,500) <sup>b</sup>	India
	Sava (770)		Yugoslavia

<sup>a</sup> Codeveloped with foreign partners.<sup>b</sup> Produced under license; may involve the manufacture of small components and the assembly of imported major subsystems. Marketing restrictions probably in effect.<sup>c</sup> An X denotes a weapon under development that lacks nomenclature.

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## Appendix C

### Israel and South Africa: Innovative Pariahs

Israel and South Africa face regional security problems and arms embargoes that have led to similarities in the development of their arms industries and export programs. Both have combined foreign technology, acquired primarily through licensing agreements, with indigenous design efforts and skilled labor forces to produce high-quality and sometimes unique weapons systems. The reported success of these systems in combat, however, has created exaggerated images of Israeli and South African production capabilities and export potential. Moreover, most Third World nations refuse to purchase arms openly from either regime or prefer more sophisticated equipment offered by traditional suppliers. These buyer attitudes—and the tighter world arms market we anticipate—will limit Israeli and South African sales. [redacted]

#### Israel

Israel, with sales totaling \$1.8 billion during 1976-82, ranks fourth among Third World arms suppliers. Deprived of access to the lucrative Middle Eastern market by its status as a regional pariah, Israel has concentrated its sales efforts elsewhere:

- Latin America accounts for more than half of all Israeli sales. Sales of reconditioned Mirage aircraft have been Israel's biggest earner, although Tel Aviv made an important breakthrough last year when Ecuador purchased 12 Kfir fighters. Gabriel anti-ship missiles and Galil rifles have also been popular items.
- In Asia, Indonesia has been Israel's biggest customer, purchasing more than 35 used A-4 Skyhawks. Some of these were sold through the United States, thus avoiding a direct link between Israel and a predominantly Muslim state. Tel Aviv also sold small quantities of spare parts to Iran after the fall of the Shah. [redacted] the purpose of these transfers is to maintain friendly contacts with the Iranian military.

- Africa has been a limited market for Israel with Kenya, Zaire, and South Africa the most notable customers. [redacted]

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- Sales in Europe and North America have been almost nil. Israel has sold some antitank ammunition to West Germany and is currently marketing its Kfir aircraft as a combat training aircraft for the US Navy. [redacted]

[redacted] trade journals note that Israel's narrow borders and open terrain have driven its defense industries to specialize in the development and manufacture of early warning, reconnaissance, armor, and aerospace systems that compensate for these geographical disadvantages. When possible, Israeli industry has modified equipment purchased abroad to meet the needs of the Israeli armed forces, according to media [redacted] Recent examples include a reconnaissance version of the F-15 fighter and the conversion of a Boeing 707 into a boom-equipped refueling tanker. [redacted]

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Indigenous designs for complete weapons systems have been pursued on a limited basis when foreign weapons do not satisfy military requirements and when an opportunity exists for employing domestic industry. Even in these cases, foreign technology has been exploited. The Kfir fighter incorporates a US engine and French fuselage, and the Galil rifle was developed by reverse engineering the Soviet AK-47 and making improvements. [redacted]

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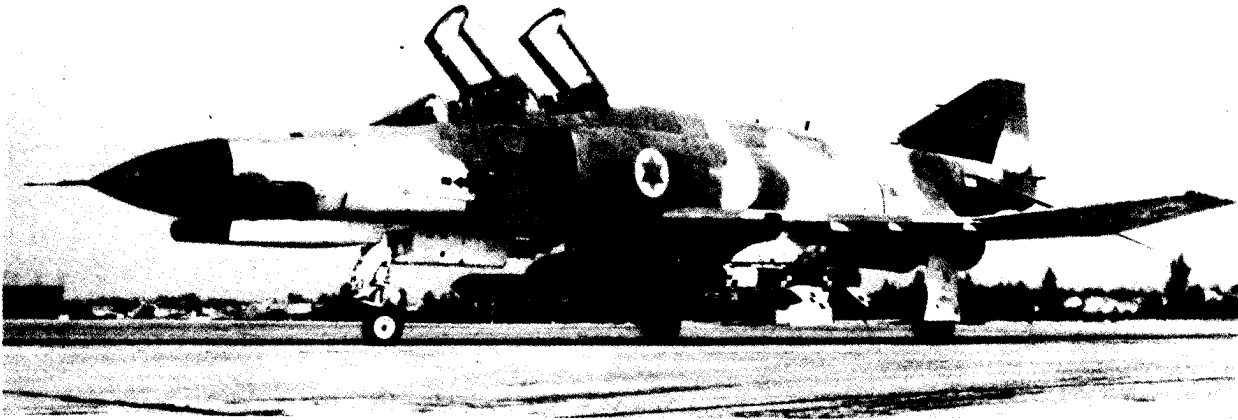
[redacted] New versions of the Merkava tank and Scout and Mastiff remotely piloted vehicles are being developed as is an air-launched version of the Gabriel III antiship missile. The latter has a

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Israeli F-4 armed with Gabriel Mk III antiship missiles

Aviation Week &amp; Space Technology ©

longer range than its ship-launched counterpart, and Israel will probably exploit the publicity surrounding the use of the air-launched Exocet during the Falklands crisis. [REDACTED]

[REDACTED] Israeli officials are outwardly optimistic about prospects for increasing defense sales. They have told US officials they expect annual sales to reach over \$2 billion by 1983. We believe these estimates are unrealistically high. Israeli officials have probably inflated their estimates to convince US officials that Tel Aviv will be able to return a profit on FMS funds used to purchase US subcomponents for weapons such as the Merkava tank. [REDACTED]

[REDACTED] In our judgment, Israel will also be handicapped by the unwillingness of many Third World states to jeopardize their relations with wealthy Arab benefactors by purchasing arms from Israel. [REDACTED]

We believe Israeli arms exports will increase only at a modest pace during the next few years, largely in Latin America where Israel will take advantage of US restrictions and a French reputation for poor follow-on support. According to US Embassy reports,

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Israel has sold additional Mirages to Argentina and has expressed an interest in selling A-4s but has refrained from officially requesting US permission

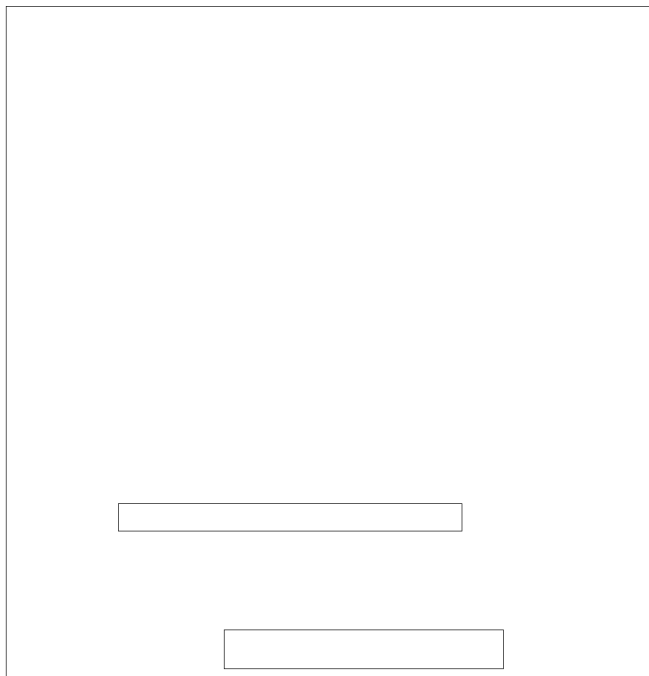


Colombia also may soon buy Kfirs,



### South Africa

media reports indicate that South Africa has recently begun an arms export drive with an annual sales target of \$150 million. The purpose of the campaign, according to media reports, is to find additional work for South Africa's defense industry in the wake of defense budget cuts and to help cover the costs of military operations in Namibia and Angola. South Africa, however, has sold only \$150 million in arms and military services in the past seven years.



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**Appendix D****Brazil and Singapore:  
Economic Motivations**

Despite vastly different sizes, the arms export programs of Brazil and Singapore have a common—primarily economic—motivation. Neither country faces an immediate security threat, and both have geared their largely state-owned defense industries toward foreign markets by pursuing liberal export policies and by producing simple, affordable weapons. Brazil and Singapore have also enhanced their security and foreign policy interests—including their roles as regional leaders—by expanding their arms industries to produce and service weapons for their major trading partners and neighbors. [REDACTED]

**Brazil**

In our judgment, Brazil's principal goal in expanding its arms exports has been to reduce its balance-of-payments deficits with oil-exporting nations. Iraq and Libya purchased more than \$1.5 billion worth of weapons during 1976-82—nearly 70 percent of Brazil's total arms sales. Recently, Brazil's important arms-oil relationship with Libya was a major factor in an incident involving the illegal transit of Brazilian territory by Libyan planes carrying military cargoes to Nicaragua. [REDACTED]

The development of Brazil's arms industry has frequently been justified by Brazilian leaders as a necessary step toward military self-sufficiency and regional leadership. State and media reports confirm that Brazil has used its arms industries to pursue these objectives by touting new weapons systems as symbols of success and by selling equipment to needy countries, such as Guyana, on concessionary terms. [REDACTED]



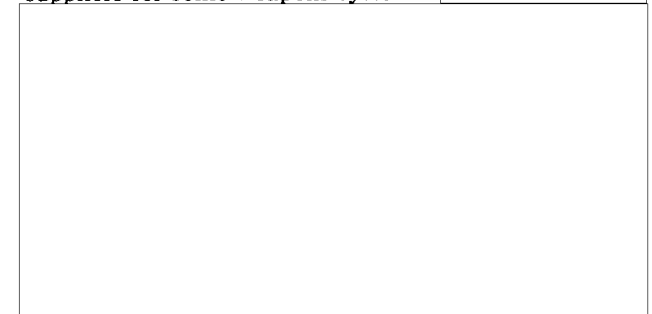
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We believe Brazil's role as an arms supplier will continue to expand because oil-rich Middle Eastern states see Brazil as an important alternative to major suppliers for some weapons systems. [REDACTED]

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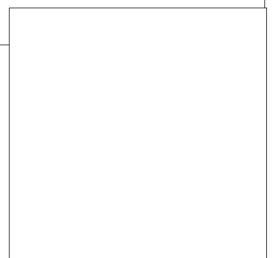
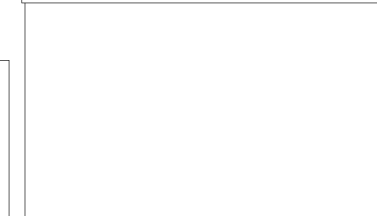
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In our judgment, future Brazilian arms sales will be limited by production delays and project failures. According to US Embassy reporting, Brazil has had difficulty meeting delivery schedules to Iraq, and recent sales of new trainer aircraft to Libya may suffer the same fate. Attache reports note that certain Brazilian projects for helicopters and air-to-air missiles have been troubled by technical problems and mismanagement. Finally, Brazil's strategy of producing less sophisticated military vehicles may backfire if these weapons are consistently defeated in battle by more capable systems built to high US, Soviet, and West European military standards.<sup>10</sup> According to attache reports, for example, Libya recently determined that Brazilian armored vehicles would be of little value in a ground conflict with Egypt. [REDACTED]

### Singapore

Singapore's less than \$140 million in sales during 1976-82, while small, represents the effort of an arms industry dedicated primarily to exports. Prime Minister Lee Kwan Yew has stated publicly that Singapore hopes to emulate Switzerland in the manufacture and export of arms by selling freely to a wide number of nations regardless of their regional and political affiliations. Thus far, sales have been directed mainly at the Southeast Asian market, but in 1981 more than \$40 million in arms were sold to Middle Eastern states. Overall, we expect Singapore's arms sales to grow slowly as additional agreements are concluded with Association of Southeast Asian Nations (ASEAN) and Middle Eastern states. [REDACTED]

Sales of reconditioned armored vehicles and patrol craft produced under license have been and will probably continue to be the mainstay of Singapore's export program. Late in 1982 Singapore landed a contract to recondition 100 Thai armored vehicles with US engines. In recent years Singapore has sold several British-designed small patrol boats, incorporating West German diesel engines, to Oman and

<sup>10</sup> Brazilian weapons, which are designed for export, incorporate simple designs and substantial amounts of parts manufactured to civilian specifications. This allows Brazil to undersell its competitors but results in an inferior product. Armored vehicles destined for export are sometimes equipped with armaments and sensors not available to the Brazilian Army. [REDACTED]



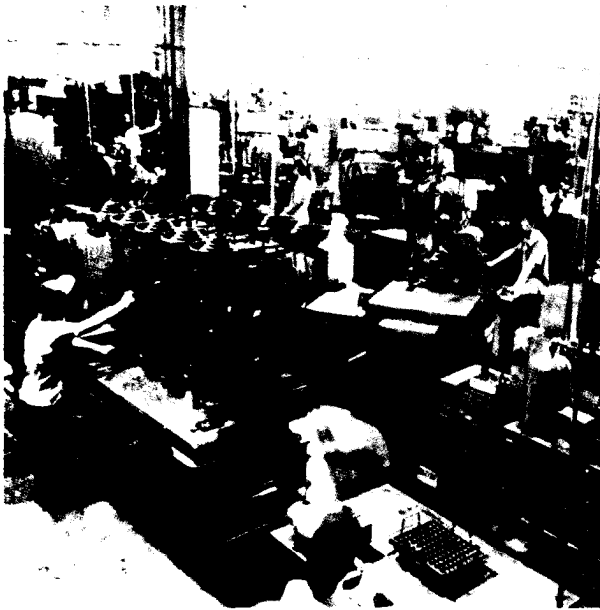
*Brazilian EE-9 Cascavel armored personnel National Defense © carrier*

Saudi Arabia. In the future we expect Singapore to expand its product line through this type of assembly operation. [REDACTED]

Licenses have also been obtained from Israel, Finland, and the United States for the production of small arms, but efforts to manufacture indigenous assault rifles and ammunition have not been successful. The SAR-80 derivative of the M-16 built by Charter Industries is not well regarded, and ammunition produced by this state-owned corporation has a reputation for breech explosions. [REDACTED]

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*Charter Industries of Singapore's rifle plant*

*International Defense Review ©*

Singapore hopes to become a major service and repair facility for military aircraft in the region, according to attache and press reports. Last year, following the reorganization of the Singapore Aircraft Industry (SAI), a contract to overhaul Malaysia's A-4 Skyhawks was signed. According to attache reports, the agreement was secured through political persuasion and appeals to regional cooperation since SAI's price was not competitive. Despite Singapore's reputation for quality repair work, earnings from such activity will be limited by the restricted defense budgets of neighboring countries.

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**Appendix E****The Koreas: Self-Sufficiency and Political Competition**

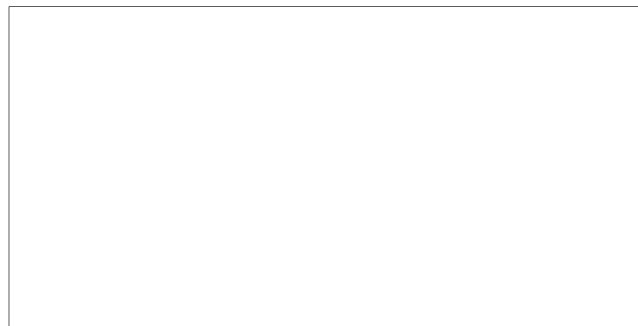
The defense industries of North and South Korea are in large part the products of mutual hostility and doubts about the reliability of their superpower patrons. P'yongyang began to develop an arms industry immediately after the Korean war, when the Soviet Union demonstrated that it would not become actively involved in defense. North Korean efforts to produce weapons accelerated in the 1960s after the Cuban missile crisis and the Sino-Soviet split. Seoul's efforts in the 1970s were prompted by the North Korean buildup, US plans to reduce the military presence in the area following the Vietnam war, and Washington's encouragement for South Korea to become more militarily self-sufficient. [redacted]

Although their principal markets are for the most part mutually exclusive, North and South Korea have used arms exports in their competition for political support among nonaligned nations. Both countries have practiced "military diplomacy" by selling or giving small amounts of military equipment and services to Sub-Saharan and Latin American nations. [redacted]

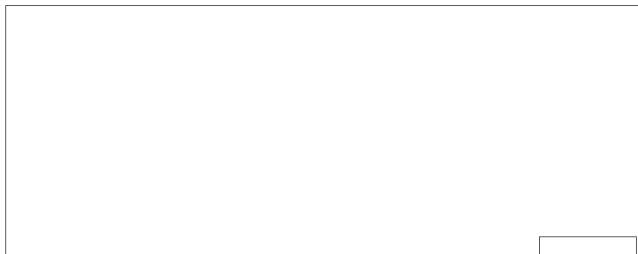
[redacted] We expect this activity to continue as long as the international legitimacy of both countries remain in doubt. Both North and South Korea should be able to maintain, if not expand, their sales in the next few years with the Persian Gulf as their most important market. [redacted]

**North Korea**

North Korea has focused its marketing activities almost exclusively on countries with inventories of Soviet-style weapons. During 1978-80 Libya was P'yongyang's major customer with more than \$450 million in purchases. A two-year hiatus in sales may have ended late in 1982 with the signing of a Friendship Treaty that calls for the exchange of military and defense industry experts. [redacted]

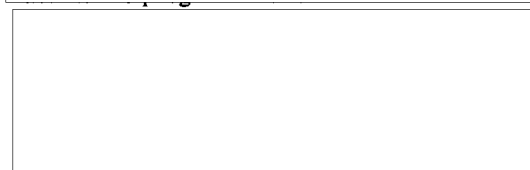


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**South Korea**

South Korea has sold more than \$2 billion in arms and military services in the past seven years, a remarkable record for a country that 10 years ago did not have a significant arms industry. Even with the phenomenal growth in exports, South Korean officials overestimated the arms market, and now many South Korean defense industries are operating at 20- to 40-percent capacity, according to US Embassy reports. Seoul has in part blamed Washington for its difficulties, citing the marketing restrictions and lengthy review process involved in exporting weapons produced under US license. US Embassy reporting indicates that South Korea has violated US restrictions in a few isolated cases, but Seoul seems unwilling to risk a major confrontation with Washington on this point. [redacted]

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To bring its manufacturing capacity in line, South Korea has announced a plan coupling the consolidation of its arms industry with a new export drive.

[redacted] Inefficient and minor producers will be allowed to go out of business. At the same time, South Korea will begin to manufacture and market a "K" series of small arms and crew-served weapons which have been under development and whose sale is not restricted by US law. The Ministry for National Defense (MND), for example, may push sales of the KH-179 howitzer once suspicions that it is a cosmetically altered version of the 155-mm artillery piece produced under US license are resolved. [redacted]

The Persian Gulf is likely to be South Korea's principal market in the future. [redacted]

[redacted] Seoul already has military construction contracts with Saudi Arabia, and Riyadh may reward South Korean assistance to Iraq with additional arms purchases. South Korea also stands to gain Arab contracts if it limits its dealings with Iran. [redacted]

South Korea will also continue to rely on its traditional market in Southeast Asia. Seoul has a military production agreement with Malaysia and has sold a variety of ground forces and naval equipment to other ASEAN states. However, economic difficulties facing these states have forced them to curtail purchases. Other regional markets are less promising. Attache reports indicate that President Chou's recent trip to Sub-Saharan Africa, which some media reports described as an arms promotion tour, was not successful from an arms sales standpoint. Only Nigeria appears to have been persuaded to purchase any arms, a \$20 million package covering artillery and ammunition. [redacted]

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## Appendix F

### Egypt and Yugoslavia: Replacing Moscow

Egypt and Yugoslavia are continuing their efforts to reduce their dependence on Soviet arms by purchasing Western arms and developing sizable domestic defense industries. Arms sales by Cairo and Belgrade are in large part a byproduct of their diversification and self-sufficiency policies. As leaders of the Non-aligned Movement and influential actors in the Middle East and Africa, Egypt and Yugoslavia have also used arms exports to further their political interests. Egypt has become an alternative supplier to countries with Soviet equipment—Iraq, Somalia, Sudan, Tanzania, and Zambia. Yugoslavia has similarly hoped to maintain the nonaligned status of Libya and Iraq by selling them arms. [ ]

#### Egypt

Egypt, Saudi Arabia, and the Gulf states established the Arab Organization for Industries (AOI) in 1975 to reduce Arab dependence on outside suppliers for military items. The AOI was to upgrade Egypt's defense industries using Arab oil money. Saudi and Kuwaiti refusal to fund the project after the 1978 Camp David agreements halted the program. [ ]

[ ] many of the workers and a good deal of the production equipment at the five plants designated for the AOI were left standing idle. Egypt redesignated the AOI as the Arab Industrial Authority (AIA)—a wholly Egyptian-owned and operated entity—and renegotiated for the assembly and licensed production of British, French, and US weapons. Currently the AIA is only assembling Alpha Jet trainers and Swingfire antitank guided missiles. [ ]

We expect Egyptian sales to continue at their present levels for the next few years. The proposed sale of 35 F-4 Phantoms to Turkey will guarantee about \$600 million in 1983, and Egyptian plans to dispose of surplus Soviet weapons should result in similar sales. According to media reports, AIA hopes to produce a tank and frontline aircraft before the end of the decade, but we doubt these plans will materialize. The prime candidate for the fighter is the F-20, but fiscal and technical problems remain. This project, as well as the rest of Egypt's plans for expanding its defense industry, remain totally dependent on Saudi financial support. [ ]

#### Yugoslavia

Yugoslavia is the largest Third World arms supplier with sales totaling almost \$3 billion since 1975. Iraq is Belgrade's biggest customer, accounting for 70 percent of arms sales. Yugoslavia has also sold small arms and crew-served weapons and aircraft to Libya, Ethiopia, Zambia, and Mozambique—which have also received most of their military equipment from Moscow. [ ]

Belgrade began to focus its defense industries on the international market in 1974 when it created the Directorate for Supply and Procurement in the Federal Secretariat for National Defense to oversee arms sales. Five years later, new laws were passed to unify Yugoslavia's regionally controlled arms industries under federal management. Prices for armaments were set in accordance with the international market, and provisions were made for foreign investment in the defense sector. An arms exhibit in Nikinci was also established to attract foreign buyers. According to media reports, the current five-year plan calls for increases in the domestic production of arms in anticipation of exporting additional weapons to hard currency markets. [ ]

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Recent reductions in funding for domestic defense procurement have made arms sales a more important source of revenue for defense industry modernization. Yugoslavia, which produces 80 percent of its own armaments and offers a wide variety of weapons—jet attack aircraft, armored vehicles, and submarines—to foreign customers, remains dependent on the Soviet Union for high-technology air defense weapons including electronics, fighter aircraft, and tactical missiles. [redacted] Plans to reduce this dependence include purchases from the West and the indigenous development of more sophisticated weapons. A new supersonic fighter, for example, is being designed as well as a follow-on to the Orao I attack aircraft codeveloped with Romania. Problems with the production of the Orao, including restrictions on the export of Western technology to Romania, have led Belgrade to decide to produce these two new planes independently. [redacted]

We expect Yugoslavia to remain a significant Third World supplier, but it probably will not be able to increase its market share even though it will continue its aggressive marketing efforts. Recently, for example, Yugoslavia has been in competition with Italy for the sale of trainer aircraft and training to Zimbabwe.

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## Appendix G

### Libya and Saudi Arabia: National Arsenals

Libya and Saudi Arabia export arms exclusively by drawing on equipment stockpiled in their national arsenals. Neither has an arms industry capable of manufacturing weapons or the ability to provide military or logistic support to its clients. Moreover, both depend heavily on expatriate technicians to maintain their inventories. In the past, Tripoli and Riyadh have given weapons to regional clients. While these shipments have not been large, many occurred during international conflicts or after domestic coups, thereby magnifying their importance. These two countries have also provided financial assistance to clients seeking arms from other suppliers, [REDACTED]

Recent declines in oil revenues will probably not affect the ability of both countries to make deliveries of weapons and military equipment. We believe, however, that cash-flow problems and a reluctance to draw on reserves will reduce Libyan and Saudi willingness to make major new aid commitments. Moreover, they may delay the purchase of new equipment for their own inventories until their oil export prospects improve, which would reduce the amount of used equipment available for export. [REDACTED]

#### Libya

Libya's principal recipients have been Syria and Iran. Several Sub-Saharan states—Burundi, the Central African Republic, Ethiopia, Ghana, Rwanda, and Uganda—have also been the beneficiaries of Tripoli's largess. [REDACTED]

[REDACTED] Last year, Qadhafi expanded arms deliveries to Latin America by sending helicopters, light aircraft, and munitions to Nicaragua. The IL-76 incident this spring was Libya's latest attempt to provide Managua with military assistance. This pattern points

to Qadhafi's willingness to use such transfers to patronize regimes with radical and revolutionary foreign policies. [REDACTED]

We doubt that Libya has acquired any permanent political gains through arms exports. Most recipients probably welcome Libyan arms as a free good and take a dim view of Libyan attempts to interfere in their internal affairs. [REDACTED]

[REDACTED] Libyan instructors in Ghana are reportedly escorted to and from training areas, and there has been little fraternization with Ghanaian trainees after classroom hours. [REDACTED]

Libyan ability to transfer arms is not directly related to the size of its arsenal. In our judgment, an increasing amount of the equipment Libya has purchased is no longer in operational condition because of poor storage and maintenance practices. Libya is unlikely to develop the skilled manpower and procedures necessary to arrest this problem and appears unwilling to hire an adequate number of foreign technicians for this purpose. [REDACTED]

Libya is attempting to build an arms industry by buying whole facilities on a turnkey basis. According to our estimates, Libya has signed agreements to purchase arms factories from Turkey and the Soviet Union. Technical assistance from North Korea is also likely following an agreement signed late last year. It will be several years, however, before any of the projects become operational. The creation of a cadre of skilled labor for even a modest defense industry will be a major problem for Libya. [REDACTED]

We believe Tripoli is likely to continue to subsidize arms industries in other Third World countries. According to trade journals, Libya financed the development of the Italian S-211 jet trainer. [REDACTED]

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Libyan IL-76 carrying arms to Nicaragua being held in Brazil

Aviation Week & Space Technology ©

It is possible that Libya might expect to receive a share of future production from these projects in exchange for its capital investment.

Saudi officials are also probably wary of endangering their own arms suppliers by making significant illegal transfers.

### Saudi Arabia

Saudi Arabia has exported \$670 million in arms—mostly small arms and ammunition—since 1975. North Yemen has been the largest recipient of materiel to date, having received F-5 aircraft, armored vehicles, and other equipment to combat insurgents backed by South Yemen. Infantry weapons and ammunition were sent directly to Somalia in 1977-78 during the Ogaden war. Riyadh has only sent a few artillery pieces to Iraq since 1979 but has played a more important role of financier and conduit for arms from other suppliers.

US Embassy reporting indicates that Saudi officials believe that in noncrisis situations their arms transfers and financing of arms purchases are less useful in meeting the needs of states like Somalia than the training and logistics programs which can be offered by US and West European suppliers. We believe

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## Appendix H

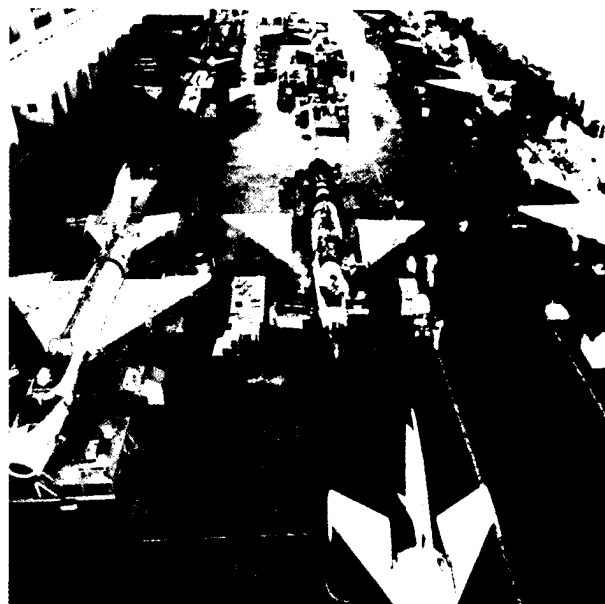
### India and Pakistan: Spares and Seconds

India and Pakistan will continue to play a modest, but unique, role in the international arms market. Even though neither state sold more than \$160 million worth during 1976-82, efforts to upgrade their defense industries and to diversify their arms suppliers have made them important conduits in the global transfer of weapons technology. Moreover, their armed forces modernization programs will probably allow them to dispose of a larger quantity of surplus weapons than they have in the past. Pakistan will also continue to transfer advisers and entire military units from its own military forces to friendly Arab states as a means of financing its arms purchases. [REDACTED]

#### India

India has the Third World's largest armaments industry but is not a major arms exporter. New Delhi's armed forces consume almost all of the production of its defense sector, which was built on the basis of licensing agreements with the Soviet Union and the West. In our judgment these agreements have been necessary, in part, because of the consistent failure of Indian industry to produce successful indigenously designed weapons systems. The H-24 Marut fighter, for example, underwent a 20-year design, development, and production cycle that resulted in the manufacture of 100 underpowered, obsolescent aircraft, according to media sources. Efforts to develop a main battle tank, helicopter, and howitzer in the past few years have been erratic and disappointing, according to attache reports. [REDACTED]

[REDACTED] Prime Minister Gandhi has initiated a new policy aimed at acquiring the latest in technology for India's defense modernization programs. This has resulted in the purchase of French Mirage 2000 aircraft and West German submarines. It has also caused the Soviet Union to offer license production arrangements for its MIG-27 fighters and T-72 main battle tanks. To help New Delhi pay for these new agreements, Moscow has offered to allow India to produce components and spare parts that can



MIG-21s being assembled in India

Flight International ©

be sold to the Soviet Union and its allies. The absence of such provisions in previous license production agreements had been criticized in the Indian press. Such buy-back clauses and exclusive subcontracting clauses may become a standard Indian demand in future negotiations. [REDACTED]

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**Secret****Pakistan**

Pakistan has a comparatively small defense industry that primarily manufactures small arms and ammunition. Sales of this equipment in the past have mainly gone to other Islamic countries with which Islamabad hopes to maintain close ties. Pakistan's biggest export item, however, is its advisers and seconds which have been dispatched throughout the Persian Gulf and North Africa.<sup>11</sup> More than 7,000 have been sent to Saudi Arabia as an armored brigade in exchange for Saudi financing of Pakistani arms purchases. Moreover, students from over 25 countries regularly attend Pakistani military schools. [REDACTED]

[REDACTED]

Pakistan is upgrading its defense industries, but we doubt this program will significantly improve Islamabad's arms sales prospects. Construction is nearly complete on several vehicle and aircraft maintenance centers which could perform work for other states in the region. [REDACTED]

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<sup>11</sup> Seconds serve in the military of the recipient nations while maintaining their status as regular members of the armed forces of the supplier country. [REDACTED]

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