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MIDEAST
ARMS CONTROL

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MIDDLE EAST ARMS CONTROL: A FIVE POINT PLAN

In the wake of the Persian Gulf War, a unique opportunity arises for defusing the powder keg that is the Middle East—and for achieving, more generally, new arms control goals for international order. Both states in the region and states outside have been sobered by the dangers of war and the costs of new high technology equipment. The question is how best to utilize this heightened consciousness and resolve.

This is the five point program we intend to pursue:

I. The Quarantine Approach to Restricting Ballistic Missiles

The Missile Technology Control Regime (MTCR), begun in 1987 as a proliferation control mechanism of the United States, France, Great Britain, Germany, Canada, Japan and Italy, already includes six other European states. Most importantly, the Soviet Union has agreed to abide by MTCR guidelines, and progress seems to have been made with China as well.

Proceeding from this excellent start, the next step should be to include all states that currently can produce missiles and any further states that gain that capability. In other words, to the extent we cannot stop the spread of the missile disease, we ought to be quarantining those who have caught it. Israel, India, and North Korea, for example, should be pressed to join the MTCR or to abide by its terms rather than sell missiles and missile components for profit.

Indeed, if world restraints prevent the sale of missile technology, few developing countries will be able to afford a missile production industry, and the efforts of those who have such an industry to upgrade the accuracy and capacity of their missiles will be greatly complicated.

II. Controlling Other Major Systems

Having shown its potential with regard to missiles, the MTCR regime should be extended to other areas of major military equipment—attack aircraft, tanks, naval warships, etc. As one author has noted, the world has a blind spot about arms sales, as it once had about child labor and slavery. Critics of arms transfer control cite its interference with the right of countries to legitimate self-defense. However, while the right of self-defense implies a right to purchase arms, it hardly obliges other states to sell arms, nor does it even provide a good excuse for selling arms.

Again, the quarantine approach, as with the

MTCR, does not attempt to penalize states for building weapons. But few will manufacture major weapons systems if they cannot turn a profit by selling these arms elsewhere.

In such a world, all states will secure an ancillary benefit: the arsenals of their opponents will not be continually upgraded through the aggressive salesmanship of weapons makers.

Accordingly, we propose that the MTCR nations open negotiations with the Soviet Union to determine whether there is a basis for expanding the MTCR agenda to other kinds of weapons.

III. Enforcing Arms Restraints

Is it realistic to think that ballistic missiles and other major weapons can be quarantined in this way?

We see merit in the view, championed by a number of legislators, that the United States by itself has the economic and diplomatic power to enforce to a significant degree such restraints by blacklisting corporations which violate the control regime and applying diplomatic pressures, where indicated, against their home countries. Renegade corporations can be prohibited from doing relevant business in the United States, and foreign assistance to their nations can be manipulated.

What influence the United States has is multiplied by the array of states accepting the MTCR regime.

IV. Regional Missile Disarmament

Inside the Middle East, a suitable agenda should go beyond proliferation restraints to work for the dismantlement of missiles capable of delivering weapons of mass destruction. In the absence of a disarmament regime of this kind the ballistic missile buildup may continue, cruise missiles will follow, and both Israel and its neighbors will be increasingly vulnerable to missile attack.

The Israelis have the most advanced missiles in the Middle East. They may intend to hold them in reserve to use with weapons of mass destruction. But one wonders why they would not agree to give up such missiles if their adversaries would. Israel has other reliable means of delivery; the other states do not.

In general, Israel has a strong interest in playing down weapons of mass destruction. It should encourage, at the least, doctrines of “no first use of weapons of mass destruction” and “no first use of ballistic

missiles" in any particular conflict. After all, its ability to retaliate with weapons of mass destruction is not, in the tense and emotional context of the Middle East, as much of a deterrent as it might be elsewhere.

Whether the Arab states would give up strategic missiles if the Israelis would is, of course, another question. But a tightly controlled MTCR would, in most cases, erode or severely restrict Arab capabilities to mount a missile force. The Soviets can be expected to help, since they worry about both Israeli and Islamic missiles.

V. An Arms Moratorium

Over and above these general themes, we think the five permanent members of the UN Security Council who joined to enforce the Security Council resolutions condemning Iraq's invasion of Kuwait should now join to enforce a five-year interim moratorium on arms sales to the Middle East with a view to facilitating a general settlement to the region's troubles.

How other arms supplying states could be persuaded to join in, and what would be the milestones in arranging such a settlement, ought to be subjects of diplomatic inquiry. It would be unholy, after so much blood and wealth have been spilled to overcome tens of billions of dollars of Iraqi armament, if the Security Council permanent five permitted the region to return to business as usual until the next war. ■

—Prepared by Lora Lumpe and Jeremy J. Stone
Reviewed and approved by the FAS Council



Salvador E. Luria Dies

FAS Sponsor and former Vice Chairman (1971-72) S.E. Luria died in February at the age of 78. He was the winner, in 1969, of the Nobel Prize for Medicine.

He achieved prominence in peace activities for the purity of his views and their intensity—as vice chairman, he even opposed, for a time, FAS' formation of a tax-deductible arm on the grounds that it would, somehow, make FAS dependent on the government. Salva will be badly missed. ■

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FIVE STEPS TOWARD REGIONAL ARMS CONTROL

I. Quarantining Missile Producers

A world consensus is taking hold that ballistic missile proliferation warrants increased attention.

Principally it is the feared link with nuclear weapons which prompted the United States and others in the mid 1980s to develop a policy for quarantining the contagion of missiles. The resultant policy, the Missile Technology Control Regime (MTCR), is currently the centerpiece of US and international efforts to deny missiles, missile components and know-how to developing countries. This voluntary agreement is a set of identical national policies directed at preventing the spread of missiles that could deliver a 500 kg or greater payload a distance of at least 300 km (parameters deemed the minimum capability necessary to deliver a nuclear payload).

What is the MTCR?

The MTCR was established in 1987 among the "Group of Seven" (G-7) Western economic allies: the United States, Britain, France, Germany, Japan, Canada and Italy. Within the last year, Spain, Denmark, Norway and the Benelux countries have all pledged to adhere to its restrictions. More importantly, the Soviet Union quietly agreed in February 1990, in a joint statement between Secretary of State Baker and Foreign Minister Shevardnadze, to abide by the MTCR export guidelines.

Two categories of controllable equipment, technologies, data and assistance are included in the MTCR. Category one contains complete rocket systems, complete subsystems and the production facilities thereof. According to a White House fact sheet on the policy, "there will be a strong presumption to deny such transfers." Category two includes items useful for civilian or military aerospace projects or space launch vehicles as well as for ballistic missiles. Because of their dual-use nature, the sale of these items is less restricted, but in the United States they are still controlled by licenses which must be requested, reviewed and approved prior to export.

The regime has some problems: differing interpretations of its restrictions, varying levels of compliance and enforcement, and limited membership. Even so, an imperfect arrangement is much preferable to the open-market trade which governs the sales of most weapons.

Moreover, the MTCR is already credited with the demise of the infamous Iraqi-Egyptian-Argentine Condor II ballistic missile, under development from 1984 to 1990. Guidance technology for the system was apparently made very difficult to come by, eventually stalling the project. The Egyptians and then the Argentinians withdrew from the program under heavy pressure from the United States. This is a concrete success which shows that the MTCR approach can work.

Two loopholes remain which allow some countries to continue developing or upgrading missile systems.

One is covert assistance through Western "techno-mercenaries." Developing countries in search of missiles find

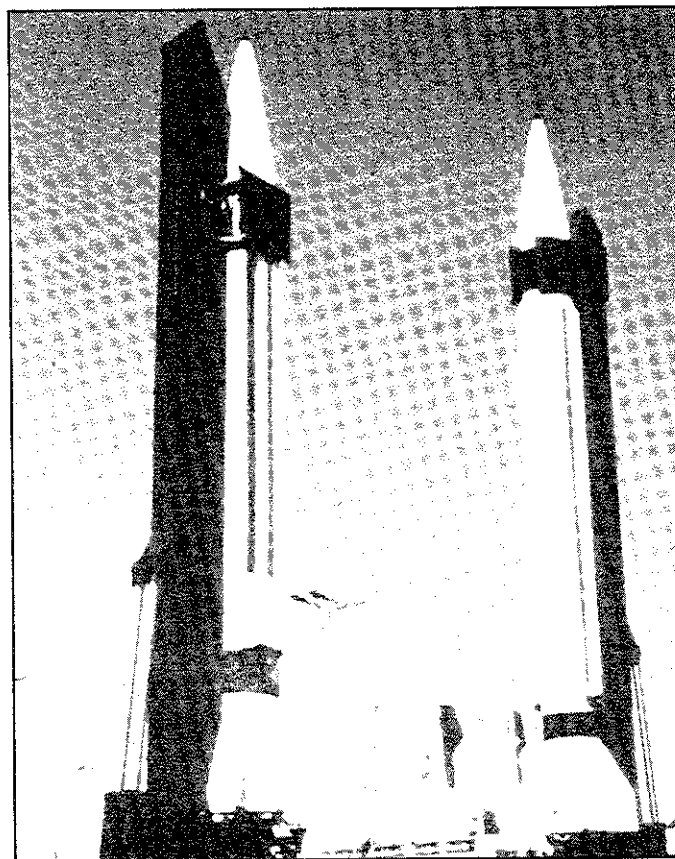
an individual or a company with the necessary capabilities from a country outside the MTCR—or one from a party to the MTCR with lax enforcement (formerly, Germany)—and set up dummy fronts for procurement of the needed components.

Opportunities for such circumvention schemes could be reduced by extending formal membership in the MTCR to all of the developed countries that could provide missile components and expertise, and by the continued efforts of member states to encourage effective implementation and enforcement of the provisions by all adhering countries.

Collaboration on missile projects among developing countries is another area that has not been dealt with sufficiently by the MTCR. Only a handful of third world countries currently have the capability to produce missiles indigenously, but most of these countries are actively aiding the development or upgrading of other countries' missiles. Those countries currently able to produce missiles and components should be brought on board the MTCR immediately, and all missile-producing third world countries, as they gain the ability to produce missiles, should be pressured to adhere to the MTCR principles not to sell their capabilities to others.

The Third World Missile Producers

China has transferred missiles to the Middle East in the past, most notably 50 of its long-range CSS-2 missiles to



Modified Scud missiles, on display in Baghdad, were built in Iraq, although probably with a good deal of help from foreigners.

Saudi Arabia in 1988, and has also provided technological assistance to missile development projects in Iran, Egypt and Pakistan.

China remains outside of the formal MTCR; however, a promise to refrain from further missile deals to the Mideast has reportedly been extracted from Beijing. In July 1990 the assistant secretary of state for Near East affairs, John Kelly, told Congress that, as far as he knew, the Chinese had neither sold nor transferred any missiles to the region since the 1988 sale to Saudi Arabia, and he explicitly denied the claim, often reported in the press, that the Chinese had recently sold missiles to Syria. He said the Bush administration had received a pledge from Beijing not to transfer or sell any missiles to the Middle East in the future; he did not say, though, that the Chinese had agreed to stop assisting in missile development projects.

Israel has the most highly developed missile production capability outside of the five permanent UN Security Council members (the "permanent five": US, USSR, UK, France, China). In the past, Israel has sold guidance technology to China (allegedly for the CSS-2, which later must have caused the Israelis some chagrin when the Saudis bought these missiles) and is believed to have aided Taiwan in building the "Ching Feng," a copy of the Lance missile which the United States had previously supplied to Israel in the mid 1970s. Concern was also aroused in October 1989 by evidence that Israel was working with South Africa on a missile system there—reputedly in exchange for fissile material.

It may be possible to get Israel to promise to abide by the MTCR standards, since Israel does have a very real and special interest in slowing missile proliferation.

India, which now has a nearly independent long range ballistic missile capability, has not so far been involved with any other nation's missile program; but it, too, should be pressed to make a pledge not to sell its missiles or technology.

North Korea also is reportedly self-sufficient in the production of an enhanced-range Scud missile. The Pyongyang government has sold some of these missiles to Iran and is believed to be helping to establish a missile production capability there, as well as in Egypt.

Argentina and Brazil, while not yet producing ballistic missiles, have design and testing capability, technology and expertise that could well be of assistance to other countries engaged in such endeavors. In the case of Brazil, which is developing a space launch vehicle, further assistance to that program from the United States and the other parties to the MTCR should be made contingent on adherence to and enforcement of MTCR guidelines. Any such space-related assistance should be safeguarded against diversion to a ballistic missile program.

II. Quarantining Other Diseases

Now that the MTCR has provided a model of a workable proliferation-control regime, it is time to think about applying the quarantine model to other types of advanced weaponry such as submarines, attack aircraft, and main battle tanks.

Value and Quantity of Weapons Delivered by Major Suppliers to Near East & South Asia 1982-1989

Item	United States*	Soviet Union	West Europe
tanks & SP guns	2,513	5,255	420
APCs & armored cars	3,542	10,595	1,240
major surface combatants	2	31	25
submarines	0	16	7
supersonic combat aircraft	192	1,225	345
guided missile boats	0	11	12
surface to air missiles	2,046	18,190	2,155
total value (\$ billions)			
transferred 1982-89	\$46.6	\$81.2	\$42.8

*The figures for the quantity of US weapons sold are misleading because the study from which they are drawn includes only government-to-government sales, omitting billions of dollars per year in direct commercial sales.

Sources: *Trends in Conventional Arms Transfers to the Third World by Major Supplier, 1982-1989*, Richard F. Grimmer, Congressional Research Service, June 19, 1990, pp. 53, 70; *Foreign Military Sales, Foreign Military Construction Sales and Military Assistance Facts*, Department of Defense Security Assistance Agency, September 30, 1989, pp. 44-45

For some categories of weaponry, the MTCR paradigm could be utilized almost directly. The supplier countries would make a determination of some threshold capability criteria, similar to the capability parameters established by the MTCR (e.g., for aircraft, bomb load and range), beyond which weapons would be considered destabilizing. Other categories of weapons, their components, and production facilities would be embargoed outright, as their proliferation would be considered in all cases too destabilizing and dangerous (e.g., submarines).

For some reason, governments have not yet arrived at a consensus that the spread of these sorts of weapons is a serious enough danger to warrant the establishment of a control regime. However, the consensus surrounding the danger of missile proliferation did not always exist either. In fact, the United States and the Soviet Union first introduced ballistic missiles to the Middle East (and, indeed, to the Third World in general) in the 1960s and 70s, in furtherance of their foreign policy goals—much like these other types of weapons are still being used today.

Later, missiles were perceived as extremely destabilizing, and as a possible direct threat to the G-7 nations themselves. Most of the third world missiles are too short in range to strike Europe and certainly can not hit the United States, but some could reach the southern portions of the Soviet Union and US or European "areas of interest."

Conventional Weapons Can Be Destabilizing

The Gulf crisis demonstrates that even tanks and artillery—not previously thought of as inherently destabilizing—also directly threaten the Western economic powers in an interdependent world. Indeed, in the case of Iraq, the most serious destabilizing factor, in terms of contributing to its aggression against Kuwait, was not Iraq's Scud missiles, but rather its "conventional" might in armor and

artillery, aircraft and air defenses, anti-ship missiles, etc.

The idea that transfer of more and increasingly advanced weapons to third world regions is destabilizing gained currency for a while during the Carter administration, and a policy of unilateral restraint on arms sales to the third world countries was attempted. This policy was accompanied by the Conventional Arms Transfer (CAT) talks, conducted between the United States and Soviet Union from December 1977 to December 1978. The CAT talks were the most recent and the only noteworthy attempt at negotiated restraint of arms sales. The Soviets were found to be earnest in their efforts at the talks, but the negotiations were short-lived, breaking down as US-Soviet relations soured at the end of the 1970s.

Much has changed since then; US-Soviet relations have improved markedly, the Gulf War has illustrated starkly the results of unchecked arms sales, and the MTCR has provided a successful model of cooperation and constraint by arms-supplying nations.

Won't Other Countries Sell, If We Don't?

Of course, it is not only the United States and the Soviet Union which must be involved in the effort, but also the West European supplier countries—and ideally, but perhaps less critically, China. According to Congressional Research Service statistics, from 1982 to 1989 the Soviet Union delivered military equipment and services valued at \$81.2 billion to the Near East and South Asia, while the United States government delivered arms and services valued at \$38.6 billion, the West European suppliers \$42.8 billion, and China \$12.1 billion to the same region.

Still, few countries—about the same number that can produce ballistic missiles and component parts—produce major military equipment, so halting the transfer of advanced conventional weaponry is still quite feasible. If the G-7 economic powers and the Soviets should decide to halt the sale of certain major military equipment and their components, they could between themselves stem the proliferation of these systems to a very large degree.

A commonly expressed reason for not exercising such restraint is that unfettered weapons-producing countries would continue to sell. The end result, American skeptics say, would be a loss of influence for the US government, a loss of revenue for US industry and government and just as



Soviet T-72 tank. Prior to the Gulf War, Iraq had stockpiled some 5,000 tanks of this and earlier models.

much armament as would have been out there if the United States had sold it. But the original MTCR adherent countries confronted this same problem on the issue of ballistic missiles. While it is true that some missiles and components continued to be sold after the cessation of such sales by the original seven signatories, by taking the moral high ground these countries were able to create a new norm against the sale of missiles.

Compared to what might be possible, there is relatively little traffic in missiles and missile components. Moral compunction has prevailed over the open sale of this technology and hardware precisely because the norm was established by a majority of the producing countries. There is no reason to believe that the same would not happen with the control of tanks, advanced attack aircraft, submarines, or whatever the seven Western powers and the Soviets decide should be controlled.

The Soviet Side

Now that the cold war struggle for the ideological allegiance of the developing countries is over, arms sales are often driven by short-term domestic economic interests of the producing countries. It has been a conventional wisdom of US critics of arms transfer control that the Soviets, due to the desperate state of their economy and their need for hard currency, could not be persuaded to reduce arms sales. But Soviet action in implementing an immediate cutoff of arms to Iraq has shown otherwise, as has their adherence to the MTCR.

Indeed, at a UN-sponsored international conference on the arms trade last year, Andrey Kozyrev, the chief of the Soviet Foreign Ministry's International Organizations Department told TASS that "it is high time to resume bilateral Soviet-American negotiations to restrict the sale and deliveries of conventional armaments and to draw arms suppliers and receivers into an international dialogue on this subject." Kozyrev pointed out that the Soviet Union, rather than gaining hard currency, was on balance actually losing money on arms sales because Soviet weapons are usually provided gratis, as aid, or financed by very soft loans. Many of their clients are poor countries, incapable of paying their debts.

Moscow's client list includes the Mideast countries that worry US policy makers the most—Syria, Libya, Iraq—as well as, outside the region, Cuba and North Korea. While the United States would certainly have to reciprocate the restraint, US security would appear to be strengthened greatly by a conventional arms anti-proliferation regime along the lines of the MTCR.

So why not test the Soviets? Rather than dismiss the notion of controlling conventional arms, the US administration publicly should put the question to the Soviets and the West European suppliers, see where everyone stands on the issue, and take it from there. If the Soviets or West Europeans decline, then unchecked sales of the most advanced armaments will continue unabated; if, however, they agree, the spiral of proliferation in the Middle East and other regions could be stopped.

III. Enforcing Arms Restraint

The success of the MTCR and any extensions of it hinges on enforcement of the provisions contained therein. But what if some adherents to the MTCR do not enforce compliance of their nationals and/or corporations? Worse yet, what if the signatory governments actively circumvent the restrictions? And what about holdouts who will not join the regime?

The United States alone, as the largest economy in the world, has a great deal of coercive (or punitive) power to encourage faithful compliance. Domestically, the government has the right to initiate legal proceedings against a violator of arms licensing laws. Internationally, the United States can use its leverage to encourage the creation of similar domestic legislation by the adherents to the MTCR.

Problems in the past with German enforcement of the MTCR—and with chemical weapons technology controls as well—have resulted in domestic embarrassment and anger over German complicity in some of Iraq's and Libya's weapons programs, as well as a great deal of pressure from the United States and other governments on the Germans to get their house in order.

Possible Coercive Measures

Quiet bilateral pressure, or well-placed leaks to the media, can often influence countries who are responsive to domestic and international public opinion. If this does not work, more abrasive measures can be employed. Legislation introduced over the past two years in the US Congress has endorsed the idea that several tough measures be enacted by the administration to punish proliferators and those who aid in the proliferation of nuclear, chemical or biological weapons or ballistic missiles. Of course similar legislation could be enacted for the control of any type of major military equipment that the Congress deems necessary.

On the supplying side, the specific company or individual implicated in aiding a prohibited project could be blacklisted from doing business with the US Government. Even more harshly, it could be prohibited from conducting business in the United States at all. If a government of a country that has no independently acting corporations or commercial enterprises, such as China, is egregiously violating its promises under the MTCR, its Most Favored Nation trade status could be revoked. Any or all of these measures could also be used to pressure a holdout country to join the MTCR or promise to adhere to its guidelines.

As for buyers of missiles and missile aid, the United States could cut off all economic—and certainly all military—aid to such countries and cut off any military technology or technical transfers of all kinds, as well as enact any or all of the above sanctions.

This is just an outline of what the United States alone could do. Obviously, US influence does not extend equally to all corners of the globe and to all actors of concern. But for each adherent to the proliferation control regime, that influence is multiplied. The inclusion of China and the

Soviet Union in such regimes provides some leverage with countries over which the United States has very little sway (e.g., North Korea).

These may be stern measures, but the spread of war-making capability is an extremely serious business. The cost of the Gulf war, not counting the massive costs of the buildup and maintenance of forces prior to war, is estimated by the US administration at roughly \$50 billion and an as yet unknown cost in lives. All of this to overcome roughly \$50 billion worth of arms sales to Iraq over the past decade. If the world is really concerned about the spread of weapons and weapons-making technology, it should enforce these strict proposals and establish a norm against selling certain weapons and technologies.

IV. Middle East Missile Disarmament

Limiting the further proliferation of weapons is not enough, as there is well justified concern about the already existing missile arsenals in the Middle East. Elimination of the present stockpiles of missiles, before mass destruction payloads proliferate, would be very desirable.

The Arab-Israeli conflict has frustrated diplomatic initiatives and kept the Middle East in turmoil for decades. However, there are indications that relations in the region may be improving and that disarmament goals might now be realized. Most notably, there is, in the wake of the war, some optimism surrounding Syrian-Israeli and Saudi-Israel relations. Given this opportunity, several confidence-building steps could be undertaken immediately to promote the missile disarmament process. Advance notification of missile tests and military maneuvers (recalling the alarm caused by tests last year of the Israeli Jericho II which landed near the Libyan coast in the Mediterranean) and a ballistic missile "no first use" pledge are two such measures.

Getting the Ball Rolling

In addition, the superpowers, on whom these countries are dependent in varying degrees for economic aid and weapons, can exert a great deal of influence on the nations of the region. The United States, for example, could call on its largest foreign aid recipients—Israel and Egypt—to sit down and discuss missile disarmament. Further, as a first essential requirement, the United States could encourage Israel to say publicly that it would be willing to eliminate its missile stockpile if other countries in the region would agree to do the same in a verifiable manner.

Of course, the Arab-Israeli arms race is not the only rivalry in the Middle East. Many states in the region have bitter relations with more than one other regional state. Current or recent arms races can be observed between, for example, Saudi Arabia and Iran, Egypt and Libya, and Syria and Iraq. A Saudi-Yemeni antagonism has emerged in the wake of the Gulf War. All of these states have ballistic missiles in their arsenals, and all regional rivals would benefit from missile disarmament.

If the MTCR were extended to *all* countries which could provide missiles or missile technology, the missile capabilities of any developing state would, to a very large degree,

be frozen in place where they are now; the upgrading of missile systems would be curtailed sharply.

Moreover, if the ban on missile-technology transfer were to include a cutoff of service to previously sold missiles, almost all of the missile forces in the Middle East would quickly wither due to lack of maintenance and repair. Saudi Arabia most likely needs the help of Chinese technicians to maintain, target and fuel its CSS-2 missiles. Iran, Iraq, Egypt and Libya have varying degrees of indigenous technical capabilities, but all are receiving a great deal of foreign assistance in their missile programs. Israel is the only country in the region that appears to have a stand-alone capability.

The Declining Value of Scuds

Most of the Middle East missiles are primitive and inaccurate, and when carrying a high explosive warhead are of

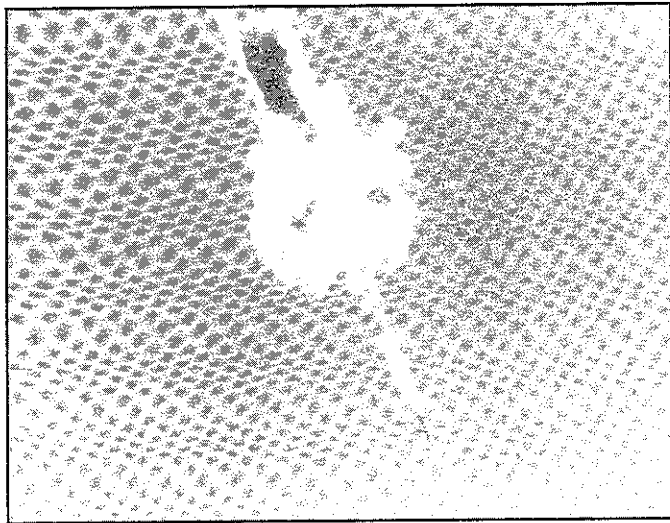
limited military consequence and serve mainly as instruments of psychological harassment. Thirty-nine Scuds fired at Israel in the Gulf War resulted in only 2 deaths. Although 28 Americans were killed and more than 100 wounded in the Scud attack on February 25, the direct hit on the military barracks was a fluke. The incident illustrates why these weapons can inspire terror, but it hardly changed the outcome of the war, unless it strengthened the American will to punish Iraq.

The same was true of the extensive missile use in Iran and Iraq's March 1988 "war of the cities." At that time, Iraq fired 160 missiles at Tehran, resulting in an estimated 2,000 deaths, but failing to provide any decisive tactical or strategic military advantage.

The proliferation of anti-tactical ballistic missiles (ATBMs), such as the Patriot, further lessens any deterrent or military value of Scud-caliber missiles. The United

MIDEAST MISSILE ARSENALS

Designation	Source of missile /date of transfer	Range (miles)	Accuracy (CEP)	Payload (pounds)	# launchers /# missiles
Egypt					
Frog-7	USSR/1968	40	440 yd	1,000	12/?
Scud-B	USSR/1973	170-190	980 yd	2,200	9/25
Sakr-80	Egypt/1987	50	unguided	440	?
Scud upgrade	Egypt + NK/?	190-350	980 yd	2,200	development
Iran					
Scud-B	Libya, NK (USSR)/1984	170-190	980 yd	2,200	20/?
Oghab Rocket	Iran/1987	25	?	?	50/?
"Iran-130"	Iran + PRC?,NK?/?	80	?	?	deployed
Iraq					
Frog-7	USSR/1969	40	440 yd	1,000	30/?
Scud-B	USSR/1974	170-190	980 yd	2,200	36/?
al-Husayn	Iraq + ?/Aug 87	375-400	1-2 mi	300-400	?
al-Abbas	Iraq + ?/Apr 88	560	2-3 mi	2,200?	?
al-'Abid	Iraq/1989	2,000?	?	?	development
Israel					
Jericho	Israel w/France/1968	280-400	accurate	1,000-1,500?	100 missiles
Lance	US/1975	60-80	400 yd	550	12/100-160
Jericho II	Israel/1986	500-900	accurate?	220?	testing
Libya					
Scud-B	USSR/1976	170-190	980 yd	2,200	70-80/120
Frog-7	USSR/1978	40	440 yd	1,100	30-48/150
"Ittisalt"?	Libya + FRG?	300?	?	?	development?
Saudi Arabia					
CSS-2	PRC/Feb or Mar 88	1,500	1.5 mi	4,400	9/50
Syria					
Frog-7	USSR/1973	40	440 yd	1,000	18-24/55
Scud-B	USSR/1974	170-190	980 yd	2,200	18/55
SS-21 Scarab	USSR/Oct 83	75	70-100 yd	1,100	18/36?
Yemen					
Frog-7	USSR/?	40	440 yd	1,000	12/36
Scud-B	USSR/?	170-190	980 yd	2,200	6/18
SS-21 Scarab?	USSR/?	75	70-100 yd	1,100	8/24?



Anti-ballistic missile systems such as the Patriot may lessen the value of Scud-quality missiles.

States military is developing several other ATBM systems and Israel is working with the United States on one, the Arrow. The Patriot has already been transferred to Israel and Saudi Arabia, and will likely be sold to other friendly countries in the region as well.

Thus nations possessing Scud or Scud-quality missiles might, in light of their diminishing value, be more willing to negotiate the missiles away. Israel, even though its missiles are substantially more capable than any others in the region, might be willing to divest of its missiles in return for Arab missile disarmament, especially since Israel already has by far the best air force and air defense capabilities in the region.

Mass destruction warheads would, however, change all of that. Their deterrent effect would be compelling, and their military potential would be real. The warheads could also be equipped with rather simple countermeasures to complicate defense, and we have seen that even without any such countermeasures ATBMs do not provide a perfect shield. Thus missiles equipped with mass destruction warheads could not be effectively countered by missile defenses; just one or a few successful "hits" might have a devastating effect.

This underscores the necessity of achieving missile disarmament *now*—and one of the strongest incentives for regional states to seek to do so. Moreover, missile disarmament would serve as an important confidence-building measure toward control and elimination of chemical and nuclear weapons. Alternatively, proliferation and deployment of mass destruction warheads will occur and disarmament will be much more difficult to accomplish.

Faced even with the diminishing value of their missiles, some states would perhaps still not agree to give up the missile option. Whether the proposed disarmament scheme would collapse or not would depend on which states refused, the ranges of their deployed missiles and the distances separating them from their rivals. For example, if Libya refused to join such a disarmament regime, this decision would immediately affect only Egypt, since Libya

currently has only Scud missiles (170 mile range). In such an instance, Egypt could receive political assurances that some pre-determined assistance would be provided if Libya launched a missile attack.

Implementation of Missile Disarmament

A determination as to which missiles would be subject to elimination should be based on which missiles could be considered "strategic" in the close confines of the Middle East. The MTCR minimum guidelines of 300 km and 500 kg might provide a good cutoff, but would leave out the accurate, 75 mile range SS-21 in the Syrian arsenal. Further, although unguided, the 40 mile range FROG and 50 mile Sakr rockets could strike Israeli population centers from just outside of the Golan Heights or from the Sinai, and could conceivably deliver a nuclear or chemical payload if such warheads were available. Clearly, the setting of appropriate limits will be an issue for negotiation and tradeoff.

Once the parameters of inclusion in the missile disarmament treaty had been agreed by the countries of the region, an accurate accounting of the missile arsenals would be made. Some arrangements for a verified destruction of the missiles, as in the INF Treaty, could then be enacted. Perhaps the United States and the Soviet Union could assist in the actual destruction of the missiles.

Satellite reconnaissance could be used to reliably verify that no missiles are being flight-tested or deployed, obviating the need for complicated verification schemes. Provision of direct and unimpeded access to satellite and reconnaissance intelligence might be one of the incentives that could be offered to get all nations of the region to agree to missile disarmament.

V. A Moratorium on Arms Transfers— Toward a Comprehensive Middle East Settlement

On January 30, 1991, Soviet Foreign Minister Bessmertnykh and US Secretary of State Baker reaffirmed their desire for a "comprehensive settlement" in the Middle East, noting that a "spiralling arms race in this volatile region can only generate greater violence and extremism." A "meaningful peace process," they said, was critical.

One element of such a process should be a five-year moratorium on arms sales to the nations of the region. Such a moratorium would check the regional arms race in place, providing a temporarily stable context in which to seek to negotiate a comprehensive peace and arms control agreement.

The Perm Five

UN Security Council Resolution 678, which authorized the use of force in ejecting Iraq from Kuwait, also called upon all states to work to bring "peace and security" to the region. The five permanent members of the United Nations Security Council, who have led the implementation of this resolution, have also, in the past, sold over 80 percent of the weapons to the Middle East. Accordingly, they have the power, as well as the responsibility, to initiate such a moratorium.

The United States has been the primary provider of arms to Bahrain, Egypt, Israel, Kuwait, and Saudi Arabia. The Soviet Union has been the primary supplier to Iraq, Libya, and Syria. France has been a significant provider to Jordan, Libya, Qatar, Saudi Arabia, and the UAE. Britain has supplied arms to Oman, Saudi Arabia and the UAE. China has been the most significant provider of arms and arms-making technology to Iran, and has in the past sold a lot of weaponry to Iraq as well.

The cooperation exhibited by the permanent five—most notably by China and the Soviet Union—in passing 12 resolutions condemning Iraq’s invasion of Kuwait, and immediately embargoing further weapons to Iraq, is a clear demonstration of the feasibility of such a proposition as this moratorium. Indeed, the Soviet government is on record in support of negotiating restrictions on arms transfers. However, if we fail to build on this new-found cooperation now, we may soon find the superpowers slipping back into the old pattern of arming client states in the Middle East.

The Smaller Suppliers

The nearly universal abhorrence of Iraq’s military aggression, and the embarrassment many nations are suffering for having helped make that aggression possible, form the political, diplomatic and moral basis for persuading smaller arms suppliers not to fill the void left by the larger suppliers’ moratorium.

Indeed, many of the smaller suppliers are already unilaterally refusing to sell weapons to the region. Germany, Switzerland and Austria all have laws banning the sale of weapons to “areas of tension” and have turned down Saudi requests for arms since August. (Germany did recently give Israel \$600 million worth of chemical defense gear and Patriot and Hawk air defense systems.) Other countries as well, without such constitutional provisions, are denying arms sales to the region. For example, the Chilean weapons company Cardoen, which had previously supplied weapons and weapons-making technology to Iraq, recently attempted to sell cluster bombs to Saudi Arabia and the UAE. The Chilean government vetoed the proposed sales, citing “the desire of Chileans for peace.”

US Continues to Sell

In the time since the Iraqi invasion last August, the United States has been by far the biggest vendor of weapons to the region, having sold or given about \$12 billion worth of arms, including \$10 billion worth of sales to Saudi Arabia, \$37 million to Bahrain, and at least \$74 million worth of arms given to Israel. None of the other permanent five—nor any of the smaller arms sellers—have supplied anywhere near that magnitude of armaments to Middle East nations since August.

Some of these US weapons were transferred immediately, but some have actually not yet been produced and will not be for several years. There is often a significant lag time between the agreement to sell arms and the actual delivery of the weapons.

Developing Countries Producing Various Types of Military Equipment

	aircraft	armored vehicles	missiles	ships
Argentina	x	x	x	x
Brazil	x	x	x	x
Chile	x	x		x
Egypt	x	x	x	x
India	x	x	x	x
Iraq			x	
Israel	x	x	x	x
North Korea		x	x	x
South Korea	x	x	?	x
Pakistan	x		?	
South Africa	x	x	x	x
Taiwan	x	x	x	x
Thailand	x			x
TOTAL	11	10	9-11	11

Source: Michael Brzoska and Thomas Ohlson, *Arms Production in the Third World* (Philadelphia: Taylor & Francis for SIPRI, 1986)

Dotting the “I’s and Crossing the “T’s

Even after delivery, there are usually contractual arrangements to service the weapons and provide ammunition and spare parts which extend for long periods of time. A moratorium would thus have to determine how to deal with already negotiated arms sales agreements. Prior contracts could be honored in full and on schedule, with only new agreements affected. Alternatively, for a more immediate stabilizing effect, the moratorium could extend to already agreed but not yet delivered armaments and services. There are dozens of pending arms transfers that such a proposal might affect.

The moratorium should apply equally to all countries in the Middle East: from Syria to the Yemen, and from Libya to Iran. The inclusion of Israel is vital and would benefit Israel, which will almost certainly come out of the current crisis in a more secure posture than it entered. Israel’s arsenal was not depleted by the war, and the acquisition of Patriot fire units and missiles is an important bonus. In comparison, the Iraqi arsenal, which was certainly the largest and most threatening of the Arab arsenals confronting Israel, was gutted if not entirely destroyed.

Israel and Egypt both have well-developed indigenous arms production industries. Thus the moratorium should restrict the transfer of component parts; otherwise, the non-weapons producing countries may feel that a loophole has been left open which unfairly advantages those countries in the region with developed arms industries.

We can hope that the Gulf War has provided a catharsis to break the Mideast deadlock that has for years produced only arms buildups and smoldering war. A moratorium on arms sales would facilitate a transition from continued military rivalry and war to a comprehensive settlement of the region’s problems. □

—Lora Lumpe

A LOOK ON THE SUPPLY SIDE: THE CASE OF ISRAEL

Since it is both a significant buyer and seller of weapons, Israel provides a doubly illustrative case study in attitudes toward the control of weapons sales. As a mid-size producer of arms, Israel demonstrates clearly the motivations of many countries—inside and outside of the region—for selling weaponry. Moreover, the success of any arms control proposals in the region depends on Israeli acceptance of them. Thus, a look at Israeli arms production and sales practices would seem to be in order.

To analyze the Israeli arms sales picture, we draw from an authoritative source: *Israel's Global Reach: Arms Sales as Diplomacy* (Pergamon-Brassey's: 1985) by Aaron S. Klieman, former chairman of the Political Science Department of Tel Aviv University.

Israel's Status as an Arms Seller

Klieman reports that Israel has become a serious player in the very competitive realm of arms sales, dealing with a wide variety of customers, almost without regard to their political stance vis-a-vis Israel. In the early 1980s, Israel ranked about 15th among nations in gross arms sales. But in its fraction of arms exports among total exports, Israel ranked fifth in 1982—counting only known sales—exceeded only by Egypt, Romania, Soviet Union and North Korea.

Like other arms vendors, Israel sells weapons to acquire political influence with other nations, to boost its economy, and to provide economies of scale which permit it to develop a sophisticated arms industry for its own security.

Israel's drive for self-sufficiency stems both from the modern history of "Jewish powerlessness" and from a series of episodes in which its suppliers attempted to restrict weapons to the Middle East. Britain, France and the United States pledged to restrict military assistance to the region in the Tripartite Declaration of May 1950, but the Soviets continued to arm the Arab states. In 1967, France imposed an embargo on shipments of arms to Israel following the Six Day War. The Israelis also felt betrayed by a delay in the US airlift of desperately needed resupply during the 1973 Yom Kippur war.

Such experiences might make Israel resistant to overall arms embargoes to the region, unless it felt an embargo worked strongly to its advantage. On the other hand, the fact that Israel now has the most advanced indigenous arms industry in the region, and that all of its adversaries in the region are receiving advanced arms from foreign suppliers, might very well allow them to accept and support an embargo.

Globally, the arms trade to the third world has evolved from the sale of obsolete weapons and surplus stocks to the transfer of sophisticated military technologies; already by 1981, of 1,100 separate arms transfer agreements, 94 percent were for new systems and only four percent for refurbished weapons and two percent for second-hand weapons.

Israel is in a good position to take advantage of such a trend since, for its own needs, it develops state-of-the-art

weaponry. Israel can advertise, "Unfortunately, we have the experience," and a wide range of buyers are impressed by Israeli performance in four major wars and numerous minor actions since 1956.

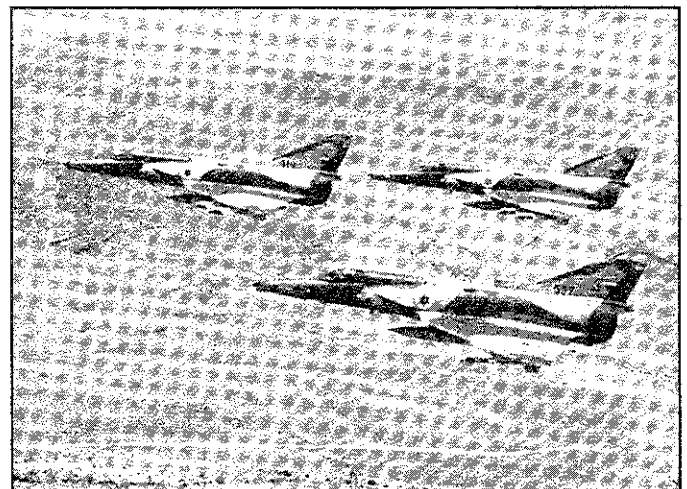
Israeli military exports have evolved from marketing second-hand equipment and small arms to providing military training and advice, to sales of boats, armor, missiles, planes and complete systems, and most recently technological know-how, data packages, sophisticated electronics, computer programs and optical components of direct or indirect military application.

Israel's approach to arms sales arises from its need to defend against Arab attack. Indeed, this is a problem which shapes Israel's entire foreign policy, turning it into a defense policy, and makes Israeli planners ask only "what is best for the Jews," as Prime Minister David Ben-Gurion once put it. It leaves little room for moral repugnance of weapons or of those to whom they may be sold.

Arms and Influence

For the Israelis, arms sales mean influence. They have provided Israel with military contacts almost everywhere—contact which could, in some cases, pressure governments to recognize Israel or treat it more sympathetically. They have provided an opening wedge for commercial contacts, for example facilitating links with the El Al air line. They have provided Israel with an opening in regions with large Jewish populations in which Israel has an interest, such as Argentina. They have established common interests between Israel and nations such as Ethiopia, Kenya and Uganda. Ongoing military training programs have established contacts with such junior officers as Idi Amin and Joseph Mobutu. And its arms have sometimes allowed Israel to function as a proxy for US and Western interests, as in helping Chad fight off Libya and helping President Reagan to supply the Contras in Nicaragua.

Arms sales have become, Klieman reports, essential to the Israeli economy. Even in the early 1980s, 20 percent of the entire industrial work force and five percent of the



Israeli Aircraft Industries' Kfir fighter/attack aircraft has been sold to Peru and Ecuador.

country's employed were working, directly or indirectly, in military industry. That is about four times the percentage in, for example, France. Export sales are now about 50 percent of defense production, twice the percentage for the United States and Great Britain. When tourism, diamonds or agricultural exports flag, arms can take up the slack. It has become important as a commercial as well as a political and strategic venture.

Klieman does not see a "policy" of arms sales as much as a "sequence of low-level, ad hoc, and specific decisions taken in response to opportunities as they arise." There is a "Ministerial Committee on Weapons Transfers," chaired by the prime minister and with four ministers as members, but Klieman reports that it is "difficult to pinpoint, for example, the locus of political and administrative responsibility for directing the arms aid and sales program. . . ." [Reading *By Way of Deception* (St. Martin's Press: 1990), by former Mossad officer Victor Ostrovsky, it appears that this locus may be the Mossad. According to Ostrovsky, former Mossad officers go to the Mossad to get papers permitting them to sell arms, and these licenses are granted quite freely.]

Who Are the Customers?

Israel does not publicize its arms transfers, and neither the media nor the public serve in a role to prevent possible over-reliance on them. Graduates of the Israeli Defense Forces involved in the exporting process tend to be cynical about false standards of international conduct and to see arms sales as perfectly natural for Israel. Basically, Israel feels it has a comparative advantage in selling arms, sells on liberal credit, and works on a strong presumption in favor of selling unless there is some compelling reason to act otherwise. It does not try to enforce "end-use, sole-use, or re-transfer" restrictions, meaning that weapons it sells might end up anywhere—even directed against Israel.

Of course, Israel does not sell weapons directly to enemy countries, and it classifies about 80 percent of its own designs, technology and products, and modifies what it sells to avoid compromising ultrasophisticated and secret devices. Israel also tries to avoid selling weapons clearly intended for domestic repression and certain "weapons of ill-repute" that are considered inhumane.

About two thirds of Israeli exports are government to government, while one third are arranged by a few hundred private arms dealers who get commissions of from five to 18 percent. The latter disguise the trail of Israeli arms sales, laundering them through a maze of fictitious companies in different countries. Of special interest to Israel are ostracized "pariah" states such as South Africa and Taiwan, and it manages a secrecy about military contacts that permitted it to sell to the Shah's Iran and to the People's Republic of China, as well.

The third world, with its many new states, internal and external instabilities, rulers who see weapons as symbols of status, and rapid turnover of weapons, is the principal market for Israeli arms. Latin America, in particular, may be buying one-third to one-half of all Israeli arms sold. The number of different countries receiving Israeli arms has



Rep. Lee Hamilton, chairman of the foreign affairs subcommittee on Europe and the Middle East: "After the war, we should pause on future arms sales to the Middle East . . . We should not return to the arms business as usual. If we, the Europeans and the Soviets can agree to stop major weapons sales to the region . . . then we can make a difference and slow, if not stop, the arms spiral."

been estimated to be between 29 and 51 states. In comparison, the United States sells to 67 and the Soviet Union, in the early 1980s, was selling to 28. This demonstrates the wide reach of Israeli arms sales.

In addition, Klieman notes that more than two dozen developing countries are participating in joint ventures with Israel involving co-development and/or co-production of weapons. Thus Israel, like most other arms suppliers, is marketing weapons-production capability, as well as weapons.

Outlook for the Arms Business

More than 31 states in Africa, Asia, Latin America and the Middle East have now acquired indigenous arms production capabilities, most with foreign help. Moreover, a growing number of third world states—among them Brazil, Singapore, South Africa and South Korea—are exporting arms. This is shrinking the Israeli market share, and in addition, many developing countries are getting poorer, and can no longer afford to buy so many weapons. Overreliance on an increasingly glutted world arms market would seem a poor economic policy for Israel to follow in the future.

Klieman's insightful exposition of Israel's arms transfer practices seems all the more relevant in the wake of the Gulf War. Israel has in the past gambled on the fact that it will (with ample US assistance) maintain its "technological advantage" and remain one step ahead of its Arab neighbors. Now that Israel has developed one of the largest defense industries in the world, and in light of the free-flowing transfer of advanced weapons to its neighbors, it might finally be in a position to accept some restraints on the world arms bazaar—including its own sales and purchases as well as those of its potential adversaries. □

FAS ACTIVITIES AND NOTES

Biological Weapons Control

In late 1989 FAS convened a working group of scientists, diplomats and policy experts to consider ways of strengthening the 1972 Biological Weapons Convention (BWC), which bans the development, production, stockpiling or retention of biological weapons.

The BWC makes no provisions for verification. At the time the treaty was negotiated, the United States had already (in 1969) unilaterally renounced biological weapons, and it was generally perceived that the inherent limitations, difficulties and risks associated with biological warfare forestalled serious consideration of the production or use of such weapons.

Recent advances in biotechnology have resulted in renewed concerns that some states may be developing biological warfare capabilities. Many claim that this type of warfare could now be practiced with enhanced ease and utility. While this claim is debatable, a mechanism is needed for resolving doubts about the intentions of other countries and forewarning parties to the treaty of possible dangers so that timely political actions could be taken.

Under FAS Council Member Robert Weinberg's chairmanship, the group first produced, in October, proposals for confidence-building measures and a broad outline of a possible future verification regime for the treaty. In February, a slightly reconstituted group of experts, under the energetic leadership of Barbara Rosenberg, FAS member and professor at SUNY-Binghamton, wrote up a second report on verifying compliance with the BWC.

This report lays out the mass of information which could be obtained through detailed annual declarations and on-site visits to facilities that contain certain types of equipment, biological agents or toxins. Such an undertaking has gained added urgency in light of allegations that Iraq had or was near to having a biological warfare capability.

The two reports have been sent to the foreign ministries of the more than 100 states party to the BWC. In addition,

Rosenberg presented the FAS group's work at a recent international conference in the Netherlands on the upcoming BWC Review Conference, where the reports were widely applauded. Indeed, the timely FAS proposals are the only effort of this sort, on this scale, and are constantly referred to by policy-makers.

FAS' work on the BWC is ongoing, with some walk-through inspections of high-containment biological laboratories being the next step. FAS is also interested in getting more developing countries prepared for this fall's Review Conference, perhaps helping to arrange funding for travel by delegates from developing regions to a preparatory conference that may be held in Geneva this summer.

Notes

Steve Aftergood has been assisting citizens' groups concerned about the environmental hazards of space-related activities, including proposed Star Wars testing in Hawaii, and the proposed testing of NASA's controversial Advanced Solid Rocket Motor in Mississippi. A report by Aftergood on the environmental impacts of solid rocket propellants is in the final stages of preparation.

FAS staffer and Navy Medical Corps reservist Peter Tyler was called up from his reserve status on Monday, February 25, and ordered to Camp Lejeune. He was called up just as the ground war erupted and deployed only in time to see it end. We look forward to his return.

The success of the Patriot ATBM in Saudi Arabia and Israel has been widely cited as convincing evidence in favor of deploying a space-based SDI system. However, David Wright of FAS and Lisbeth Gronlund of the University of Maryland have completed a study showing that tactical ballistic missiles such as the Scud can easily underfly and evade the proposed "Brilliant Pebbles" SDI system with little or no modification and only a small penalty in range. Their report will be released in early March.

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