Soviet Arms Transfers to Vietnam

An Intelligence Assessment
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Soviet Arms Transfers to Vietnam

The Soviet Union supplies virtually all of Vietnam’s military needs at no apparent financial cost to Hanoi. We estimate the value of Soviet military deliveries since 1980 at $3.2 billion, making Vietnam Moscow’s sixth-leading arms client in the Third World and, after Cuba, the second-largest recipient of grant aid.

Soviet military aid has made Vietnam the dominant regional military power in Southeast Asia and is probably one of the most important, enduring factors affecting political and military developments in the region. Soviet assistance has, for example, enabled Vietnam to pursue its war in Cambodia while maintaining strong forces along the Chinese border; to assert its claims to disputed offshore islands and oil exploration sites; and to gradually standardize and modernize its ground, air, and naval forces.

Moscow receives several significant benefits from its aid to Vietnam:

- Vietnam has granted the USSR large-scale use of naval and air facilities at Cam Ranh Bay. Soviet forces based there give Moscow a continuous military presence in the region, which enhances Soviet ability to surveil US forces in the area in peacetime and to threaten those forces and Pacific-Mideast sea lanes in war.

- Strengthened Vietnamese forces are a military counterweight to China. Vietnam’s Army creates a substantial barrier inhibiting China from projecting its military influence in Southeast Asia.

Despite the importance of Soviet aid to both Vietnam and to the USSR, Moscow limits the assistance. Vietnam receives far less assistance than other Soviet clients such as South Yemen, Angola, and Ethiopia in relation to the size of its armed forces, and it receives less sophisticated weaponry than most of Moscow’s major recipients. We believe Moscow sees little reason to be more generous because Vietnam has no alternative suppliers, cannot pay cash, is able to pursue its policies with the current aid, and is reluctant to make concessions to Moscow such as granting outright control of Cam Ranh that might bring more aid. The Soviets also may want to avoid giving China and the ASEAN states additional reasons for turning to the United States for military assistance.
Barring another large-scale Chinese attack on Vietnam, we believe the amount of Soviet military aid to Hanoi will remain about the same through the rest of the decade. Vietnam will receive sufficient equipment to maintain its forces at current strengths and enough consumables and replacement items to prosecute the war in Cambodia at the current level of intensity. Some new weapons, such as MIG-23 fighters, T-62 or T-72 tanks, and larger frigates, probably will be added to keep Vietnam’s forces technologically equal to China’s. Vietnam may be forced to grant the USSR longer term and more extensive rights at Cam Ranh Bay in return.

China and the ASEAN states will continue to perceive Vietnam’s large, Soviet-supplied forces as a serious threat and are likely to respond in several ways:

- There will be increasing cooperation among the ASEAN states and between them and China in supporting the Cambodian resistance militarily and politically. The United States is likely to be encouraged by the ASEAN states to play a larger role diplomatically and possibly to provide arms to the resistance.

- ASEAN states will urge the United States to provide them with more sophisticated weapons on better credit terms to counter stronger Vietnamese forces. West European firms will compete with the United States to modernize ASEAN inventories.

- The ASEAN states will expect the United States to maintain a military presence in the region, including basing and joint exercises, to help deter Vietnamese attacks and provide the military edge to defeat combined Vietnamese-Soviet forces in a larger conflict.

- China will maintain military pressure on its border with Vietnam, including keeping large forces in the region, as well as shelling Vietnamese forces and making limited cross-border attacks.
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Soviet Arms Transfers to Vietnam

Introduction

The USSR has been Vietnam’s chief arms supplier since at least the early 1960s and in recent years has provided virtually all of its new military equipment at no apparent financial cost to Hanoi. This assessment evaluates recent trends in the Soviet-Vietnamese arms transfer relationship, the impact of Soviet arms deliveries on Vietnam’s military capabilities, the benefits Moscow receives from its substantial aid program, and the response of China and other Southeast Asian states to it. The likely future course of the Soviet aid program and its implications for US interests in the region also are addressed.

Background and Overview

Soviet military assistance to Vietnam began to increase in 1978 after several years of decline following the withdrawal of US forces from South Vietnam (figures 1 and 2). Moscow’s military aid jumped from an estimated low of $11 million in 1977 to $90 million in 1978 as Hanoi became involved in new conflicts in the region. Large-scale Soviet military transfers resumed in 1979 when Hanoi’s invasion of Cambodia was followed by a Chinese attack on Vietnam.

Soviet military aid reached an all-time high of almost $1.8 billion in 1979. More than 150,000 tons of military equipment were delivered: improved MIG-21 fighters, T-54/55 tanks, SA-3 surface-to-air missiles, and other items to replace worn-out weaponry. Some deliveries of crucially needed equipment were made in a two-month-long airlift much like the previous Soviet effort in Ethiopia in 1977 (table 1). We estimate that more than 2,500 Soviet advisers also arrived to help with the integration of new equipment and the reorganization of Vietnam’s forces. Aid remained high at an estimated $1.4 billion in 1980, with delivery of 90,000 tons of military equipment, but dropped to $400 million, or about 50,000 tons, the next year, probably because of integration difficulties and a decline in the immediate Chinese threat.

The Last Five Years: A Stable Aid Program

Deliveries of military goods in the last five years have stabilized at an annual average of more than $600 million, ranking Vietnam sixth among Moscow’s arms clients in the Third World (table 2). Vietnam’s steady acquisition of new military equipment, in our view, has been driven by its efforts to modernize and to some extent reorganize its forces. Beijing’s invasion brought home the magnitude of the Chinese threat. The invasion prompted Vietnam to substantially expand its forces in the three northern military regions and to improve its capabilities to defend territorial waters and disputed island holdings. At the same time, Hanoi has sought to sustain its forces in Cambodia. Given these major strategic demands, Hanoi is dependent on external military aid. Vietnam can produce only small numbers of light arms, ammunition, and simple boats, and we believe that even this limited production capability is dependent on Soviet machinery, spares, and technical advice.
The exact terms of Soviet military assistance are unknown, but, because Vietnam has little of economic value to offer Moscow, we believe the aid is highly concessionary:

- We believe Hanoi pays no hard currency for its arms. Soviet-Vietnamese economic trade is on a soft currency basis. Moreover, Hanoi could not pay even if Moscow demanded hard currency. Vietnam has meager foreign exchange reserves and has defaulted on its hard currency debt of $1.6 billion to Western states and international organizations.

- The Soviets probably provide most of the military equipment as a grant in exchange for basing privileges, as well as for across-the-board Vietnamese support of Moscow's policies.

- Moscow may sell some equipment under long-term loans at concessionary terms, but most of these are probably forgiven.

Military Value of Soviet Arms Aid to Vietnam

Soviet military deliveries have helped Vietnam achieve its two major military goals—maintaining a strong deterrent to a second Chinese invasion and improving its ability to fight in Cambodia. In recent years, Hanoi has provided new equipment to its forces defending the Chinese border to maintain their local superiority over Chinese forces, and has begun to bolster its forces in Cambodia.

Sustaining an Enlarged Army
Following the Chinese invasion, Hanoi increased its northern armed forces to 600,000 to 800,000 men. Its first priority was to provide these units with more T-54/55 and PT-76 tanks, a variety of armored personnel carriers, towed as well as self-propelled...
Table 1
Major Equipment Delivered to Vietnam, 1977-85

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Combat aircraft</td>
<td>2</td>
<td>2</td>
<td>191</td>
<td>83</td>
<td>9</td>
<td>12</td>
<td>50</td>
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<td>Transport aircraft</td>
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<td>18</td>
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<td>31</td>
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<td>0</td>
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<td>33</td>
<td>36</td>
<td>31</td>
<td>29</td>
<td>2</td>
<td>0</td>
<td>2</td>
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<tr>
<td>Tanks</td>
<td>0</td>
<td>0</td>
<td>200</td>
<td>53</td>
<td>6</td>
<td>25</td>
<td>153</td>
<td>100</td>
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<td>Other armored vehicles</td>
<td>0</td>
<td>0</td>
<td>146</td>
<td>62</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>69</td>
<td>0</td>
</tr>
<tr>
<td>Self-propelled artillery</td>
<td>0</td>
<td>0</td>
<td>202</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Towed artillery</td>
<td>0</td>
<td>0</td>
<td>314</td>
<td>45</td>
<td>0</td>
<td>58</td>
<td>18</td>
<td>12</td>
<td>NA</td>
</tr>
<tr>
<td>Surface-to-air missiles</td>
<td>0</td>
<td>0</td>
<td>262</td>
<td>100</td>
<td>0</td>
<td>120</td>
<td>135</td>
<td>NA</td>
<td>12</td>
</tr>
<tr>
<td>Major surface vessels a</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
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<tr>
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<td>0</td>
<td>5</td>
<td>10</td>
<td>21</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

* Major surface vessels include frigates; minor include missile craft, patrol craft, minesweepers.

artillery, and other equipment (figure 3). Since the end of the buildup in 1982, the Army has concentrated on replacing wornout equipment in all of its units, usually with new items of already available weapons, and on supplying ammunition and other day-to-day needs for units in Cambodia. The range of equipment imported includes all of Hanoi’s major weapon systems, such as tanks, APCs, and artillery, as well as engineering equipment, small arms, ammunition, trucks, and modern medicines. In 1983 and 1984 armored vehicles dominated Soviet deliveries to the ground forces. In 1985 engineering equipment accounted for the bulk of deliveries; most of the rest consisted of tanks, artillery, and rocket launchers (figures 4 and 5).

The Vietnamese Army needs a steady stream of replacement equipment because much of its inventory is old and poorly maintained. Poor maintenance probably has caused equipment to age prematurely. Small arms captured by Thai forces in 1985, for example, were rusted, and many had broken stocks. Neglect made most US equipment unusable within a few years after its capture, according to reports from visitors to Vietnam.

Spare part stocks for US trucks were running out by 1981 and we believe other types of equipment have fared little better. Vietnam is gradually replacing the large numbers of US M113 APCs, 105-mm artillery, and other arms still in use in Cambodia.

The focus on force maintenance has allowed for some standardization and modernization. The Army’s mix of weapons is narrowing; only a few types of arms are being received to replace a variety of Soviet and remaining US and Chinese weaponry. We believe logistic problems have been simplified as a result, and maintenance and training probably are becoming easier because the Army is familiar with the types of arms it receives. Recent Soviet deliveries have allowed some modernization: improved versions of standard weapons, such as T-55s and heavy artillery, are replacing older models.
Table 2
Moscow's Major Arms Clients in the Third World, 1981-85

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Value of Deliveries (million US $)</th>
<th>Share of Total (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>48,400</td>
<td>100</td>
</tr>
<tr>
<td>Syria</td>
<td>7,350</td>
<td>15</td>
</tr>
<tr>
<td>Iraq</td>
<td>6,750</td>
<td>14</td>
</tr>
<tr>
<td>Libya</td>
<td>4,240</td>
<td>9</td>
</tr>
<tr>
<td>India</td>
<td>3,950</td>
<td>8</td>
</tr>
<tr>
<td>Cuba</td>
<td>3,300</td>
<td>7</td>
</tr>
<tr>
<td>Vietnam</td>
<td>3,150</td>
<td>7</td>
</tr>
<tr>
<td>Algeria</td>
<td>2,900</td>
<td>6</td>
</tr>
<tr>
<td>Angola</td>
<td>2,550</td>
<td>5</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>2,100</td>
<td>4</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1,950</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>10,160</td>
<td>21</td>
</tr>
</tbody>
</table>

*1985 values are preliminary estimates.

Replacement of wornout arms, however, does not fill several gaps in Hanoi's inventory. For example, no additional self-propelled artillery has arrived since 1980, and the number of armored personnel carriers delivered is insufficient to allow development of balanced mechanized forces. In addition, the Army has not received enough trucks to maintain its mobility and logistic support system.

Expanding and Modernizing Air Defenses

Soviet deliveries during and immediately after the Chinese invasion allowed Vietnam to expand and modernize its Air Force and air defenses (figure 6). In 1979 and 1980 a large number of late-model MIG-21 fighters replaced wornout MIG-17s and -21s, as well as all of the remaining US and Chinese fighters. Hanoi also bolstered its SA-2 and SA-3 SAM units in the north with several hundred missiles and launchers. In addition to strengthening its air defenses against China, between 1980 and 1982 Vietnam created fighter-bomber and attack helicopter units and increased its transport fleet with the acquisition of 40 SU-22 fighter-bombers, at least 25 MI-24/25 attack helicopters, and 35 AN-26s (figure 7).

Unlike the Army, the Air Force has continued to acquire additional capabilities in the last three years. More than 100 MIG-21s have highlighted recent deliveries—probably to replace older Soviet aircraft. SA-2s and SA-3s continue to arrive, and in 1985 Hanoi received its first two MI-17 helicopters, which we believe eventually will replace its older MI-8s.

We believe replacement aircraft are in constant demand because of natural attrition, the short service life of older Soviet aircraft, and Hanoi's limited maintenance capability. The MIG-21, for example, can fly only about 2,000 hours—half as long as comparable Western fighters. In addition, the aircraft's engine has to be overhauled every 250 to 300 hours.
Despite the problems, the addition of new MIGs, in our view, has essentially standardized and helped modernize the Air Force (figure 8). Standardization probably is easing maintenance and logistic burdens, although we believe Hanoi remains dependent on Moscow for spare parts and major overhauls. New equipment acquisitions have also enabled the Air Force to improve its counterinsurgency capabilities in Cambodia. M1-25 helicopters and AN-26 aircraft have been used in attacks on resistance groups in Cambodia.

**Slow Improvement in Naval Forces**

The Vietnamese Navy is gradually improving its capabilities, especially antisubmarine warfare (ASW), to defend Vietnam’s offshore islands and coastal waters. Older vessels are being replaced and new types of weapons capable of performing new missions added. Naval modernization began before the Chinese invasion—Hanoi’s first two Petya frigates arrived in 1978—and probably was driven initially by Hanoi’s desire to assert claims to disputed islands and territorial waters following the end of the Vietnam war in 1975. We believe the Chinese attack accelerated the pace of the Navy’s development; most of Hanoi’s new patrol craft arrived in 1979 and 1980 (figure 9).

To date, naval acquisitions have included about 60 small vessels, including eight Osa patrol craft armed with SSN-2 missiles, Turya hydrofoils, minesweepers, and landing craft. Hanoi also acquired a squadron of KA-25 ASW helicopters and four “Mail” amphibious reconnaissance/ASW aircraft in 1982. Several patrol craft and three additional Petyas arrived in 1984.
better ASW capability and an expanded missile attack capability. In spite of these improvements, the Vietnamese Navy remains greatly inferior to China’s naval forces and essentially unable to challenge Beijing’s submarines. We believe that Soviet training and maintenance assistance are crucial to the Navy (table 3).

Soviet Advisory and Training Program
MOSCOW’s military advisory group of up to 2,500 personnel is the largest advisory presence in the Third World outside of Cuba, Syria, and Afghanistan. It is involved in a wide range of activities, touching on every aspect of the armed forces except personnel assignment and party activities. Soviets are attached to Vietnamese units down to at least the division level and, in some cases, in the Army, down to the regimental level. Soviet advisers also teach at military academies and may serve on individual ships. They also provide technical advice on maintenance and use of new equipment.

The Soviet advisory presence in Vietnam, although large in absolute terms, is small compared to the presence in other Soviet Third World clients when the size of Vietnam’s armed forces is considered. In Vietnam the 2,500-man Soviet advisory group serves an armed force of more than a million men. In contrast, South Yemen has 1,000 advisers for 30,000 troops; Angola, 1,200 for 50,000; and Ethiopia, 1,700 for 200,000—and these numbers do not include the large Cuban and East European presence in these nations (table 4).

The lower density of the Soviet advisory presence probably reflects a combination of Vietnam’s greater military capabilities and less willingness on the part of Hanoi to become dependent on Soviet advisers. We believe that the Vietnamese Army and Air Force need less help in tactical training because of their combat experience and familiarity with the equipment they receive. In our view, the Navy is less skilled and probably requires a higher concentration of Soviets.

Vietnamese resentment of Soviet advisers also limits their role, although the amount of friction is minor:

- Vietnamese commanders frequently agree with Soviet advice but then fail to act on it. In our view, Vietnamese officials’ pride in their own military history contributes to their resentment of the Soviet advisers.
- Haiphong dockworkers’ dislike for Soviet advisers probably helped lead to their removal.
- the Vietnamese also limit Soviet influence by excluding advisers from two areas that we believe are important to control in Vietnam’s Communist system—personnel and party affairs.

Training in the USSR. We estimate that more than a thousand Vietnamese receive training in the USSR each year, although we lack information to determine the exact numbers involved. Military education in the Soviet Union probably focuses on special courses and
25X1

more advanced training, supplementing the extensive training Soviet advisers provide in Indochina. The best students from the Air Force Command and Technical School at Nha Trang undergo additional years of training in the USSR, for example. This program alone reportedly includes a few hundred students at any one time. In addition, more technical courses, such as aircraft and naval training, are taught in the Soviet Union. We believe that most training for new equipment is also initiated in the USSR, as is the case for most Third World countries.

The Balance Sheet for Moscow

The Soviet arms aid program has provided several significant political and military benefits for Moscow. Most important are the basing rights and the military pressure on China. Moreover, we believe that Moscow perceives the costs of its military aid to Hanoi to be reasonable, partly because it is less generous than aid to other Soviet Third World arms clients that provide even less returns.

Cam Ranh Bay

Vietnam has granted the USSR use of naval and air facilities in return for aid. Moscow began continuous use of Cam Ranh Bay in 1980 and has steadily expanded the facilities into its largest operational base in the Third World, dwarfing its base at Delahak Island off Ethiopia. Improvements since 1980 include several docks, a petroleum storage area, and satellite communications facilities. Six to eight TU-95/142 reconnaissance/ASW aircraft and 16 TU-16 naval aircraft—including 10 attack versions—are stationed at the base. A squadron of MIG-23 fighters arrived in 1984 to provide air defense. The USSR also maintains two to five submarines, six to 14 surface combatants, and eight to 20 auxiliaries at the base (table 5).
The use of Cam Ranh Bay provides several advantages for the Soviets:

- In peacetime, it expands the USSR's ability to surveil US forces in the region.
- In wartime, Soviet naval forces at Cam Ranh could threaten sea lines of communication. Cam Ranh might divert US forces from missions against the home waters and bases of the Soviet fleet, at least initially.
- Cam Ranh provides Moscow with a continuous presence in the region and may help deter another major Chinese attack on Vietnam.
- It serves as a base from which Soviet naval reinforcement of the Indian Ocean squadron can be supported.

We do not know the terms of the agreement between Moscow and Hanoi concerning use of Cam Ranh Bay.

Hanoi has not granted Moscow complete control of Cam Ranh. To assert its sovereignty and maintain leverage over the Soviets, Vietnam has kept naval infantry and a small helicopter training unit at the base and occupies one pier. Also, many Soviet improvements to date are semipermanent, such as use of floating piers. Nevertheless, recent developments suggest that Soviet use of the base continues to expand.
the Soviets are continuing to refurbish and construct facilities at Cam Ranh.

A Counterweight to China
We believe that strengthening Vietnamese forces benefits the USSR by posing a military and political challenge to Beijing. Vietnam is able to maintain its grip on Indochina and keep China from gaining dominance in Southeast Asia because of Soviet aid. Hanoi is also able to maintain its presence on islands in the South China Sea that Beijing might otherwise occupy. Moreover, we believe Moscow values the establishment of militarily strong states, such as India and Vietnam, on China’s southern flank, even though they pose no offensive threat to China.

Modest Cost to Moscow:
Vietnam’s Second-Class Status
Soviet military aid to Vietnam is less generous given the size of Hanoi’s forces—than Moscow’s aid to many other Third World arms clients. Moreover, Moscow has not provided Hanoi with arms as modern as those delivered to other LDCs in recent years. Hanoi’s best weapons are slightly improved versions of weapons first produced in the 1950s and 1960s, while other customers such as India, Iraq, Syria, and Libya have received equipment almost as modern as the Soviets’ own. Other nations that are as poor and dependent on Soviet largess as Vietnam—Ethiopia and Angola, for example—have received MIG-23s, while Hanoi has only the less capable MIG-21. Cuba, which, like Hanoi, is dependent on and ideologically linked to Moscow, has MIG-23s; SA-6, -8, and -9 SAMs; and submarines. Vietnam has only SA-2s and -3s (tables 6 and 7).

We believe Moscow limits its aid to Vietnam for several reasons:

- The current level of aid is sufficient for achieving Moscow’s purposes. Hanoi is able to maintain its regional position with the current level and quality of Soviet aid, and this aid has provided the USSR with major benefits. Moscow provides more modern and expensive weapons to clients whose regional position is less secure, such as Cuba, or to customers that can pay or turn to other suppliers, such as Libya, India, or Iraq.

- Vietnam can offer Moscow no money and little else in return for more aid, except possibly longer term basing rights or increased influence on Vietnamese policy or personnel, both of which we believe Hanoi is reluctant to do. The Vietnamese already resent their present degree of dependence on the USSR.
Delivery Location

An increasing amount of Soviet aid for Vietnamese and People’s Republic of Kampuchean (PRK) forces in Cambodia has been delivered through the Cambodian port of Kompong Som since 1983. The use of Kompong Som shortens logistic lines and reduces wear and tear on equipment destined for use in Cambodia. For example, more than half of the new tanks delivered to Indochina last year went to Cambodia; previously all were delivered to Vietnam.

The shift in delivery locations, in our view, reflects the shift in Hanoi’s priorities from strengthening its northern forces to deter another Chinese “lesson” to increasing the tempo of the war in Cambodia. Before 1983 most deliveries went through the Vietnamese ports of Haiphong and DaNang. Forces opposing China received new arms, while units in Cambodia relied on older equipment including captured US arms, such as M-113 APCs and 105-mm artillery.

No aircraft or helicopters and only a few small patrol boats have been delivered directly to Cambodia, and we expect all other air and large naval equipment to continue to go directly to Vietnam. Hanoi’s fleet is deployed to defend Vietnam’s coastline, especially the approaches to Haiphong, and is just beginning to press claims to potential offshore oilfields and to the disputed Spratly and Paracel Islands in the South China Sea. DaNang is the delivery and assembly port for all fighter aircraft sent to Indochina. We also expect that any new, more advanced ground weaponry will be delivered to Vietnamese ports for use first on the Chinese border.

- Moscow may provide relatively unsophisticated weapons to avoid angering China and the ASEAN states and prompting them to obtain more sophisticated arms from the United States and others. China’s best conventional weapons are roughly equivalent to Vietnam’s. Although the ASEAN states are beginning to receive better weapons, such as the F-16, they hope to rely on a qualitative edge in the face of Vietnam’s greater numbers of weapons. Moscow has refused Vietnamese requests for MIG-23s on the grounds that Hanoi does not need them.
Table 5
Soviet Naval and Air Presence in the Third World

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Vietnam</th>
<th>South Yemen</th>
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<th>Angola</th>
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<td>ASW/reconnaissance</td>
<td>6-8</td>
<td>2-4</td>
<td>0-2</td>
<td>0-2</td>
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<tr>
<td>Fighter</td>
<td>14</td>
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<td>0</td>
<td>0</td>
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<td>Bomber</td>
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<td>0</td>
</tr>
<tr>
<td>Ships</td>
<td></td>
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<td>Major surface</td>
<td>4</td>
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<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Submarine</td>
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<td>0-2</td>
<td>0-2</td>
<td>0</td>
</tr>
<tr>
<td>Auxiliaries</td>
<td>8-20</td>
<td>0-10</td>
<td>0-4</td>
<td>2-4</td>
</tr>
</tbody>
</table>

* The Soviet Indian Ocean squadron fluctuates in size and operates primarily from the base at Deebak Island off Ethiopia. Besides the aircraft, no Soviet units are stationed permanently in South Yemen.

- Moscow provides about $1 billion in economic aid each year, including petroleum, capital goods, and help in infrastructure development. The two aid programs are probably not directly tied, but the burden of the economic aid may make the Soviets reluctant to increase military aid.

Regional Responses to Soviet Aid

We believe China and the non-Communist states in Southeast Asia feel threatened by Moscow's support for Hanoi in Cambodia and by the increasingly capable Soviet and Vietnamese forces in the region. They have responded to the Soviet-Vietnamese challenge in several ways.

China has put military pressure on Vietnam, sought Western arms technology, and placed conditions on improved relations with the USSR partially in response to Hanoi's policies that Moscow's large-scale backing makes possible. China maintains large forces along the border with Vietnam, shells Vietnamese forces regularly, and makes limited cross-border attacks. Beijing also supplies the Cambodian resistance with arms and other equipment. In addition, Beijing has made withdrawal of Hanoi's troops from Cambodia one of its three conditions for improved Sino-Soviet relations.

ASEAN has reacted to Hanoi's increasing military strength by making joint efforts to oppose the presence of Vietnamese forces in Cambodia and by strengthening their own forces. In 1985, for example, the ASEAN states made coordinated diplomatic protests to Moscow over Soviet arms support of Vietnam in Cambodia, according to State Department reporting. Most ASEAN states also launched force modernization programs after Vietnam invaded Cambodia and began to rebuild its military strength, although budgetary constraints have forced cutbacks of planned expansions. Malaysia, for example, is fortifying Swallow Reef in the Spratly Islands and developing a naval base in Sarawak in part to offset Vietnam's increasing naval strength.

Thailand decided to develop a better air reconnaissance system after one of its aircraft was shot down near Cambodia in 1985.

Chinese-ASEAN cooperation, which began in the mid-1970s, has also increased in response to Vietnam's Soviet-supplied military operations in Cambodia. While area states, especially Indonesia and Malaysia, still consider China a threat in the long term, they believe Hanoi poses the more immediate threat. Partly as a result, China and the ASEAN countries have developed direct trade and political ties since 1979, and they coordinate diplomatic opposition to Vietnam's occupation of Cambodia and Moscow's support of the aggression.

China and Thailand work closely in supplying the Cambodian resistance—Beijing provides the arms and Bangkok controls distribution—and Singapore may buy some Chinese arms for the resistance.
### Table 6
Soviet Arms Provided to Selected Clients

<table>
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<th>Angola</th>
<th>Ethiopia</th>
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**Outlook: A Steady Course Ahead**

In our judgment, the quality of arms delivered in the future will probably improve, both to maintain Hanoi's ability to resist Chinese pressure and to improve Moscow's access to Cam Ranh Bay. The Soviets are likely to provide Hanoi equipment roughly as capable as China's best. The number of major items of equipment delivered probably will decline, however, because Hanoi is not likely to expand its armed forces much beyond the size created in the last five years. The greater cost of more sophisticated items also will reduce the number Moscow is willing to supply.

[5] Hanoi does not expect to reduce the resistance forces to tolerable levels before the end of the decade.
Table 7
Comparison of Soviet Military Deliveries to Vietnam and Other Third World Nations, 1981-85

<table>
<thead>
<tr>
<th></th>
<th>Vietnam</th>
<th>South Yemen</th>
<th>Ethiopia</th>
<th>Angola</th>
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<tr>
<td>Number in armed forces</td>
<td></td>
<td>1,000,000</td>
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<td>200,000</td>
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<tr>
<td>Estimated value of deliveries (billion US $)</td>
<td>3.2</td>
<td>0.9</td>
<td>2.0</td>
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<tr>
<td>Tonnage delivered (thousand metric tons)</td>
<td>280</td>
<td>68</td>
<td>145</td>
<td>170</td>
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<tr>
<td>Value of deliveries per man (US $)</td>
<td>3,200</td>
<td>30,000</td>
<td>10,000</td>
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<tr>
<td>Military tonnage per man (metric tons)</td>
<td>0.28</td>
<td>2.27</td>
<td>0.7</td>
<td>3.4</td>
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</table>

to deliver. Over time, Hanoi's inventory of such major arms as fighter aircraft, tanks, and SAMs probably will decline because the more advanced equipment will not replace worn out arms on a 1-for-1 basis. In our view, the new equipment will probably offset the decline in numbers.

We believe each service will receive some new equipment by 1990:

- The Army should acquire more capable tanks and probably more self-propelled artillery. Vietnam's T-54/55s will become increasingly vulnerable to Chinese antitank weapons and probably will begin to be replaced by T-62 or even T-72 tanks. The addition of more self-propelled artillery would reduce the vulnerability of Hanoi's batteries to Chinese counterbattery fire.

- The Air Force probably will receive better fighters and air defense missiles. Vietnam already has asked for the MIG-23 Flogger, and we believe Moscow probably will provide it to counter China's effort to upgrade its F-7 and F-8 fighters and possibly Thailand's acquisition of F-16s. Moscow may also transfer more advanced SAMs, such as the SA-6. Hanoi will continue to receive better helicopters, such as the MI-17, and transport aircraft as replacements for older equipment, although the effects on modernization will be modest.

- The Navy may receive submarines as well as replacements for old patrol craft. A submarine force would improve Hanoi's ability to contest Chinese forces in the South China Sea and allow Vietnam to keep pace with area states, such as Indonesia, that are acquiring submarines. Vietnam probably will also receive additional Petyas and eventually larger, more capable frigates.

Vietnam's new equipment will still lag several generations behind the arms exported to more favored clients. Nonetheless, in return, the Soviets may acquire broader access to Cam Ranh Bay, such as more extensive shore facilities and basing rights for more aircraft. Greater access, coupled with even modest improvements in Vietnam's arms inventory, will provide a continuing incentive for China and ASEAN to cooperate in opposing Hanoi. We doubt that Moscow will strengthen Vietnam's ground forces to the point of encouraging even bolder cross-border operations in Thailand, but Hanoi may be encouraged to demonstrate its claims in the South China Sea through the delivery of better warships.

Alternative Prospects
Soviet arms deliveries to Vietnam could increase or decrease significantly, given certain less likely developments. We believe Soviet aid could increase and include more advanced items if:

- Increasing resistance in Cambodia required a substantially increased Vietnamese effort to retain control. The USSR would probably provide many more anti-insurgent weapons, such as MI-25 gunships.

- China launched a second invasion of Vietnam. The Soviets would support Hanoi by undertaking another major sea and air lift of both new and replacement equipment.

- The Soviets wanted permanent use or control of Cam Ranh Bay, and Hanoi were able to drive a hard bargain. New weapons would probably be delivered more quickly in this instance.
• Relations between Moscow and Beijing deteriorated significantly. The Soviets would increase pressure on China by introducing more advanced arms into Vietnam.

• Offshore oil production began and improved Vietnam's economic position. Although we believe the current pace of Vietnamese exploration precludes this development in the next five years, it would enable Hanoi to offer hard currency for more modern Soviet arms. Also, Hanoi might buy a few arms from non-Communist countries to try to pressure Moscow into providing more or better equipment.

Alternatively, we believe arms transfers could drop if:

• The war in Cambodia were settled diplomatically or gradually died out. Hanoi would need less support from Moscow, especially consumables.
• Sino-Soviet relations improved significantly. Moscow would still provide enough aid to maintain its basing rights, however.

Implications for the United States

We believe that the strengthening of Hanoi's forces by substantial Soviet arms transfers and the resultant benefits that accrue more directly to Moscow have several implications for US interests in the region:

• Stronger Vietnamese naval and air forces and the continued Soviet presence at Cam Ranh Bay will pose a more serious threat to the security of states in the region friendly to the United States. Southeast Asian states will expect the United States to maintain a military presence in the region capable of defeating these forces in a regional conflict.

• Expanding Soviet forces at Cam Ranh Bay also will pose an increasingly direct threat to the ability of US forces to keep area sea lanes open in war. The development of shore facilities and air defenses at Cam Ranh will increase the ability of Soviet forces based in Vietnam to sustain operations independent of the Soviet homeland, especially with submarines, in at least the initial stages of a conflict.

• ASEAN states will expect more US security assistance, including transfer of sophisticated arms—the F-16A/B, the M60A1 tank, and new items such as modern minehunters and submarines, surveillance radar and aircraft, and possibly precision-guided munitions—to maintain their technological edge over Hanoi's forces. West European nations will compete with the United States to meet these needs, and the United States will face pressure to offer better credit terms and licensed production or lose sales. The high costs of new systems coupled with tight ASEAN budgets will create additional pressure for easier terms.

• China and the ASEAN nations will try to maintain close political and military relations with the United States. Soviet aid enables Vietnam to maintain its large presence in Cambodia, and, as long as Hanoi remains there, China and the ASEAN states will encourage Washington to play a greater role in trying to break the deadlock.

• Vietnam's continuing total dependence on the USSR may lead Hanoi to become more deeply involved in supporting Moscow's policies in the Third World. Vietnam is already the source of many small arms for Communist and leftist insurgent groups, including two-thirds of the arms captured in Central America, according to US military reporting. If the USSR decided to support Communist insurgents in the Philippines or elsewhere in the region, we believe Vietnam could serve as a focal point for arms smuggling and training. Vietnam probably would be reluctant to do so, however, because, if detected, such efforts would undermine Hanoi's efforts to get ASEAN states to cease their aid to the Cambodian resistance.
Appendix A

Vietnamese Arms Transfers and Military Training

Vietnam became a minor supplier of arms and military training in the past decade for both financial and ideological reasons. Hanoi produces almost no military goods of its own, but has tried to sell some of the US weapons it captured in 1975 and has transferred some of this equipment to other Communist states.

Vietnam’s training program for insurgents and military personnel from radical countries has been more extensive. Cubans, North Koreans, Salvadorans, Hondurans, Palestinians, and Dominicans have all received unconventional warfare training in Vietnam.

Hanoi has given captured US arms to ideological allies, however. Two-thirds of the weapons taken from Communist and leftist insurgents in El Salvador are US small arms that were once sent to Vietnam.

Vietnam is willing to send instructors to other countries.

We believe

We believe that Hanoi provides at least some of this training at the urging of other Communist countries:

• PLO members were offered various courses by the USSR in several Communist countries in the late 1970s, including Vietnam, from which they could choose the most useful.

North Korea, the USSR, and China received small numbers of US weapons in the late 1970s, and these nations may have become secondary sources of US weapons originating in Vietnam. We believe North Korea may have supplied some arms to Nicaragua, and
Appendix B

Soviet Military Assistance to Laos and Cambodia

Laos
The Soviet Union increased its military aid to Laos at the same time it renewed large-scale aid to Vietnam. Moscow is Vientiane’s largest arms supplier and has delivered an estimated $340 million since 1978. We believe this aid has consisted mostly of a few thousand tons of light arms and assorted ammunition each year. More than 100 tanks, a few helicopters, transport aircraft, and 30 MIG-21 aircraft have been delivered, however.

The Soviets have a large advisory presence in Laos, given the size of Vientiane’s forces. More than 100 of the 500 advisers believed to be in Laos provide support for the Air Force, and some of them fly Laotian transports and helicopters on routine flights. Other advisers run military schools and supervise construction and military deliveries.

We believe the Soviets and Vietnamese compete to a limited extent for influence in Laos. For example, that the Laotian leadership is split into pro-Vietnamese, pro-Soviet, and neutral factions. The Soviets sought successfully to take over a military academy from Vietnamese advisers. Whatever competition occurs is probably kept at a minimum for several reasons. Moscow cannot realistically challenge Hanoi’s dominant position, given the presence of 50,000 Vietnamese troops in the country, and the fact that Soviet aid for Laos must pass through Vietnam. Moreover, we believe Moscow has little reason to challenge Vietnam for control of Laos—its geographic position offers little of value, and, by supporting Vietnam in Laos, Moscow both curries favor in Hanoi and forestalls China’s influence in Indochina.

Cambodia
Soviet military involvement in Cambodia has grown alongside that of Vietnam. Moscow is Phnom Penh’s largest military supplier, providing at least $260 million in equipment since 1979 and some support to Vietnam’s large training and advisory program in the country. The USSR is largely responsible for the development of Cambodia’s Air Force and tank forces. Cambodians began receiving pilot training in the USSR in 1980, and Soviet advisers are training tank and artillery crews in Cambodia. We expect Cambodia to assemble its first MIG-21 squadron now training in Vietnam this year. Cambodia received patrol boats from the USSR in 1984.

We believe that the Vietnamese-Soviet rivalry in Cambodia is minimal and will remain low, but, if it intensified, it would be potentially more serious than in Laos. Unlike Laos, Cambodia’s direct access to the sea could serve to preserve a Soviet foothold in the region if Moscow’s ties to Hanoi deteriorated. The current presence of 150,000 Vietnamese troops in the country precludes a Soviet challenge for influence in the short term, but Khmer-Vietnamese antagonism and the cadre of Cambodians trained in the USSR could threaten Hanoi’s position if it removed its forces from Cambodia. The prospects of rivalry intensifying, however, are remote within the next five years. Moreover, Moscow would not abandon the more strategically placed and larger Vietnam for Cambodia, in our view. Nonetheless, a stronger Soviet presence in Phnom Penh could enhance Moscow’s bargaining position with Hanoi and provide a fallback position if its ties to Vietnam deteriorated.