AD-A060 296 ARMY WAR COLL STRATEGIC STUDIES INST CARLISLE BARRACKS PA F/G 15/5
THE ROLE OF SECURITY ASSISTANCE IN MAINTAINING ACCESS TO STRATE--ETC(U)
SEP 78 W B HANKEE, A H KING

UNCLASSIFIED NL

1 OF 1
ADA
060 296

END
DATE
FILMED
12 78
DDC

DDC FILE COPY

AD A060296

LEVEL II

2

STRATEGIC STUDIES INSTITUTE
US ARMY WAR COLLEGE
carlisle Barracks, Pennsylvania

6

THE ROLE OF SECURITY ASSISTANCE IN MAINTAINING ACCESS TO STRATEGIC RESOURCES.

by

9 Special rept.,

10 Mr. William B. Hankee
[redacted]
Dr. Alwyn H. King

11 20 Sep[redacted]78

12 32p.

DISTRIBUTION STATEMENT.
Approved for public release;
distribution unlimited.

ACCESSION for
NTIS White Section ☒
DDC Buff Section ☐
UNANNOUNCED ☐
JUSTIFICATION.....
BY.....
DISTRIBUTION/AVAILABILITY CODES
Dist. AVAIL. and/or SPECIAL
A

DDC
RECEIVED
OCT 23 1978
D

390 230

mt

DISCLAIMER

The views, opinions, and/or findings contained in this memorandum are those of the author and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.

FOREWORD

This special report reviews the role of Security Assistance as an instrument of US foreign policy, and discusses the current trend toward a continued growth in international arms trade and a discernible shift from a military/ideological orientation to a greater emphasis on economic considerations. The implications of US dependence on foreign sources of oil, and the effect of this situation on Security Assistance planning and control, are addressed. An assessment is provided of the potential future use of Security Assistance in maintaining access to other strategic resources in key global regions.

This special report was prepared as a contribution to the field of national security research and study. As such, it does not reflect the official view of the Army War College, the Department of the Army, or the Department of Defense.

ANDREW C. REMSON, JR.
Colonel, CE
Director

78 10 17 048

BIOGRAPHICAL SKETCHES OF THE AUTHORS

COLONEL ALWYN H. KING, US Army Reserve, Retired, is an Economist with the Strategic Studies Institute, US Army War College. A veteran of World War II and Korea, he has served in various command and staff positions in the Corps of Engineers active and reserve components. He received a bachelors degree in Engineering from McGill University in Canada, an MS from Columbia University, an MBA from Babson College, and a DSc from Stuttgart Technical University, Germany. He has been associated with the Brunswick Corporation and with Arthur D. Little, Inc. His article "Flexible National Interests and US Foreign Policy" appeared in the April 1977 Military Review.

MAJOR WILLIAM B. HANKEE, United States Air Force, Retired, is a Sociologist with the US Army War College's Strategic Studies Institute, Carlisle Barracks, Pennsylvania. He holds a bachelors degree from the University of Maryland and a masters degree from Temple University in Philadelphia. While on active duty, he served as a Command Pilot with Strategic Air Command and Military Airlift Command aircrews and as an Operations and Training Staff Officer in the Far East. Major Hankee's primary area of interest is Security Assistance and he has contributed to a number of Army studies dealing with this subject.

SUMMARY

Debate over the role of Security Assistance, comparatively quiet since World War II, has increased markedly during the past few years. The public and lawmakers have expressed alarm over what is perceived as excessive arms sales throughout the world, and particularly the dominant US role in this traffic.

Every sign points toward a continued growth in international arms trade with emphasis shifting from military or ideologically-oriented considerations to economic considerations. These signs indicate a potentially dangerous trend toward a return to the unstable multipolar condition of the pre-World War I and II days with profit-seeking arms companies hustling business much as they did then.

In developing and implementing Security Assistance policy, the US Government has adopted, in recent years, a seemingly well-structured review process to determine whether or not to supply arms to another country. Then, the unexpected oil crisis triggered events which threaten to make a shambles out of US Security Assistance policy and provided a warning for those planners involved in future foreign policy and Security Assistance activities. US/Western dependence on foreign sources for oil, accompanied by extensive Security Assistance to oil producing states, could send arms sales spinning out of control. While Security Assistance to the Middle East may be justified on anti-Soviet grounds, the real reasons for it appear to be to ensure access to strategic resources, particularly oil, and to have general political influence in the region.

The oil situation may be considered the harbinger of things to come. Projections forecast additional critical strategic resource shortages by the year 2000 and an increasing dependence on US/Western access to these resources in various regions of the world. The oil problem has been a planner's nightmare and, since Security Assistance has been a useful tool in maintaining access to this vital resource, logic would appear to have it play a similar role in the future.

There must be greater awareness and understanding on the part of the security issues community of the growing importance of critical resources in US strategic planning. The need to retain access to certain materials could become the dominant US interest in various regions of the world by the year 2000. Since Security Assistance will undoubtedly be used as an instrument to help alleviate the strategic resource problem, it is incumbent upon the United States to reappraise the adequacy of the present machinery of policy control and legislative oversight governing Security Assistance for application in this future role. With increased awareness, understanding, and planning--Security Assistance can serve the United States as a useful mechanism and still not unduly stimulate an uncontrollable arms race.

THE ROLE OF SECURITY ASSISTANCE

IN MAINTAINING ACCESS TO STRATEGIC RESOURCES

> "As long as there are rivalries between nations, there will be a demand for weapons--whether brand new, secondhand, or Nth hand--sensitive to the requirements of warfare and the buyer-seller conditions existing at the time."[1]

The term "Security Assistance" (SA) involves the action of the US Government in providing defense articles and services to foreign governments. It includes foreign military sales (FMS) and aid programs, with FMS now providing the bulk of the overall SA program. It is essential to understand that FMS orders, often referred to as "arms sales," have for the past several years consisted of about 40 percent weapons and ammunition, 25 percent support equipment and spare parts, and 35 percent training, construction and other services. Grants of military equipment no longer constitute a significant part of US arms transfers.[2]

Debate over the role of SA, comparatively quiet since World War II, has increased markedly during the past few years. The public and lawmakers alike have expressed alarm over what is perceived as excessive arms sales throughout the world, and particularly the dominant US role in this traffic. However, except for sales to the Middle East, the volume of international arms trade does not appear significantly larger than it was 10 years ago.[3]

The issues involved in FMS are complex. There are a variety of arguments used to support arms sales, including the following:[4]

- Arms sales are useful in helping to supply allies when they cannot supply themselves.

- The sales allow the United States to maintain influence over the recipient governments.

- They provide a useful mechanism for correcting our balance of payments.

- They are helpful in preserving regional balances of power.

- The sales help to maintain internal security in the recipient countries.

- If the United States doesn't sell the arms, someone else will.

The arguments used against the sales are also varied:

- The sales lead the United States to make greater commitments to a country, commitments which no one originally intended.

- The United States can maintain very little, if any, control over the use of the weapons, once sold.

- There is a good chance the arms will be used in regional quarrels which could escalate and involve the superpowers.

- The sales may aid totalitarian regimes in their efforts to suppress legitimate interest groups in their own countries.

- The United States has the dubious distinction of being the leading arms merchant in the world and actions should be taken to reverse this trend.

- Selling weapons often detracts from the readiness of the US arsenal.

- Indiscriminate sales sometimes result in situations where both sides in a conflict use US-made weapons.

- Financial resources of recipient countries are diverted from essential socio-economic programs.

Those who attack the FMS issue frequently do so from a moral (sometimes self-righteous) standpoint. They equate arms sellers with the Four Horsemen of the Apocalypse--spreading their plagues throughout an unstable world for financial or political gain. Supporters of arms sales maintain, with equal moral and political vigor, that the best hope for security and peace is a strong free world and geographical military balance. As with any subjective, unquantifiable problem, there is no simple right or wrong. The truth probably lies somewhere between the extremes and, despite all the discussion, both sides will probably remain unmoved. The purpose of this paper is not to delve into the moral ramifications of SA, or to try to determine right or wrong. Rather, it is to examine the more mundane aspects of SA in relation to a changing international system, scarce strategic resources, and US and Western security.

THE CHANGING PATTERN

Clearly, there is a changing pattern of international arms trade related to a general transformation of the international system. Following World War II, the United States and the Soviet Union were the centers of power throughout the world and arms were transferred to maintain or gain an advantage in the Soviet-US strategic balance as determined by Moscow and Washington. Now, new centers of power and influence have sprung up around the world in both the industrial and developing worlds, vying with and among each other in unexpected patterns of confrontation. Regional conflicts fester, threatening global stability. The rigid bipolar world

of the 1950's and early 1960's no longer exists. The reduction of ideological tensions and the relaxing of alliance bonds have led to a series of rather flexible alignments in various regions of the world and signs indicate a return to the multipolar, unstable condition of the pre-World War I and II days.[5] As the international system becomes more multipolar, the political rationale for selling arms is being reinforced by economic pressures. The greatest changes are in the method of transferring arms, the types of arms being transferred, and in the proliferation of supplier and recipient countries.

The world of nations is constantly changing and growing in numbers. All have some kind of armed forces and few judge themselves capable of insuring internal order or of maintaining the integrity of their territory without external sources of military supply. It is probable that the level and quantity of military transactions between nations will be substantial, because:[6]

- There has been a proliferation of sovereign nations with a variety of defense needs and objectives.

- An increasing number of countries now have their own arms production industries, multiplying the sources of supply and introducing new regional imbalances.

- More countries can now afford to pay cash for arms from various foreign suppliers. This reduces the influence that once accrued from the US role as military supplier to many governments.

- Certain arms suppliers offer lucrative long-term financing.

Probably the most significant change in US arms transfers in recent years is the declining use of grant aid to an increasing reliance upon

sales--cash and credit. The emergence of the United States as the leading arms salesman is traceable to this changing pattern. Today, over 90 percent of US arms trade to other countries is for cash or credit.

In many cases, US arms transfer emphasis has shifted from allies to other friendly countries with which we have no formal defense treaty ties. It is the beginning of a move from arms transfers to maintain the Soviet-US strategic balance as seen from Washington and Moscow, to selling arms in order to deal with regional balances and internal situations as perceived by other capitals.[7] Gelb writes: "What all this adds up to is an incipient revolution in supplier-recipient relationships. For instead of the United States dictating to others what they need to meet the common external Communist threat, others are telling us what they feel they need for their own purposes."

Another change is the proliferation of arms suppliers from mainly two to a whole host of states. Today there are some 50 countries exporting arms. Major suppliers accounting for more than 90 percent of total world arms exports are the United States, the Soviet Union, France, Britain, the People's Republic of China, West Germany, Poland, Czechoslovakia, Italy, Canada, Belgium, Israel, Netherlands, Sweden, and Switzerland. Some of these have been heavily dependent upon export sales for the survival of their defense industries (e.g., France and Britain).[8]

In addition to the rise of some arms-producing states to positions of relative importance in the international system, other regional power centers have emerged which are likely to have a major influence on the military balance within their respective regions (e.g., Iran, Brazil, India, South Africa).

When the United States was departing Vietnam, and its inclination to project its own power abroad was diminishing, there was a cogent political rationale for boosting SA for allies and other friends to acquire the means to better defend and reassure themselves. This was the "Nixon Doctrine."

Then something unexpected happened. US/Western dependence on Middle East oil put into the hands of a few Middle East countries the power to render the Nixon Doctrine largely irrelevant. These states were suddenly in a position to build up arsenals out of all proportion to the threat--essentially Soviet pressure--that the United States had hoped to equip them to resist. It is this unforeseen sequence, and not any dark design, that threatens to make a shambles out of the guidelines previously applied in accordance with US policy, foreign austerity, and the then-lower state of weapons technology. The oil boycott was a planner's nightmare and SA has been a tool used to prevent its recurrence. While SA to the Middle East may be justified on anti-Soviet grounds, the real reasons for it appear to be to ensure access to strategic resources, particularly oil, and to have general political influence in the region.[9]

The oil crisis was but the first shock of an economic upheaval affecting the entire international system.[10] It may be considered the harbinger of things to come. By the turn of the century, the United States could be dependent upon other vital strategic raw materials located in conflict areas over which it will have less and less control--economically, politically, and militarily.

CRITICAL MATERIALS AND DEFENSE REQUIREMENTS

Although more self-sufficient in strategic mineral resources than most industrialized countries, the United States is becoming increasingly dependent on foreign sources and supplies. As this dependence grows, vulnerability to restrictions or interruptions of strategic and critical materials supplies increases. In 1975 the United States imported more than 50 percent of its domestic requirement for 20 different industrially and strategically important minerals. By 1976 that number had increased to 23. (In 1950 it was only four: manganese, aluminum, tin and nickel).[11]

In some cases, importation of a large proportion of US consumption of a mineral is based solely on economic factors; because of higher domestic labor costs, or environmental or governmental restrictions, it is simply cheaper to purchase elsewhere than to produce locally. In several important cases, however, the reason for importing is a nonexistent or critically short supply of domestic reserves, or inadequate production capacity in the United States. For these materials, US dependence on foreign suppliers can have strategic implications. Although such materials are a critical, though unmentioned, factor in current arms sales negotiations with the Arab oil-producing states, in this case the United States is reacting to OPEC resource-related initiatives rather than dealing from a position of strength.

Several recent studies have attempted to identify those nonenergy minerals, imported as a large proportion of domestic consumption by the United States, which are most vulnerable to supply interruptions or coercive price increases potentially damaging to the US economy. Regardless of

criteria used in these attempts to classify materials as to criticality, strategic importance, or vulnerability, certain materials tend to turn up on the "most important" or "most vulnerable" lists. A review of nine recent surveys on this subject revealed that chromium, manganese and aluminum appeared on seven lists of critical materials, while cobalt, nickel, tin and titanium appeared on six of the lists.[12] Furthermore, with the exception of titanium, US reserves of these same materials have been determined to be less than 1/10 of the quantities required to meet US maximum anticipated cumulative demand to the year 2000.[13]

It is often difficult to separate military-related materials requirements from those of the civilian economy. For example, we might estimate that 10 percent of US stainless steel production is used in military-related applications. In the event, however, of a 90 percent reduction in our available chromium supply (an essential ingredient in many stainless steel alloys), it may not be economically feasible for industry to produce the 10 percent military requirement of conventional stainless steel and simultaneously convert to some substitute material for the remaining 90 percent. Any significant shortage of a critical material may thus be expected to have some impact on defense-related applications of that material.

The difficulty of quantifying the DOD portion of the overall materials requirement is further complicated by the fact that the DOD requirement includes both direct and indirect materials consumption. This situation is illustrated by the following example:

The Department of Defense purchases electronic components which contain a certain amount of aluminum. This is a direct consumption of aluminum by DOD from the electronic components and accessories sector of the economy.

This sector also sells components to the radio, television and communication equipment industry which in turn provides its output to DOD. The aluminum in the electronic components supplied to the radio industry is an indirect consumption of aluminum derived from the electronic components sector of the economy.

Using input/output analysis to specify inter-industry transfers throughout the US economy, and thus to include indirect materials consumption, a Stanford Research Institute team has compiled a list of materials which, in addition to being economically important, are most likely to be critical to Department of Defense needs over the next decades. The basis for this analysis was an assessment of the significance of these materials with regard to five different categories: 1) the percent of Department of Defense use of the material as an indicator of the sensitivity of DOD to that material shortage; 2) the availability of US reserves as a fraction of total expected US demands between now and the year 2000; 3) the percent of US imports of the material; 4) the vulnerability of the sources from which the material was imported; and 5) the difficulty of substitution of the material.

Again we find chromium, manganese and aluminum, and cobalt, nickel and tin on the critical materials list.[14]

CRITICAL MATERIALS SUPPLIER COUNTRIES

A consideration of those materials which are becoming increasingly resource-limited shows that our imports often originate from less-developed countries (LDC's). Furthermore, these LDC's in some cases possess the largest known reserves of these particular materials. In the event of political instability within the exporting nation, close alliances with

potential adversaries which could cut off resources, or political cohesiveness between suppliers of the same commodity leading to the formation of cartels, the potential for future supply interruptions cannot be ignored. It is apparent that US policy planners are faced with a two-fold problem in the materials area:

1) an increasing economic dependence on the Third World nations for raw materials, and

2) a serious vulnerability to any significant disruption in the flow of these goods which are in critically short supply in the United States and in countries considered to be fast Allies and reliable sources. US interests in the Third World are accordingly magnified and deepened by these two problems.

The rapidly increasing dependence of the United States on imports for materials requirements poses a real threat to both commercial industry and defense capabilities. The seriousness is further aggravated by the political instability of several nations upon which we depend for major supplies of critically needed metals. This is particularly true of the southern portion of the African continent, an area which is the repository of much and in some cases practically all of the known deposits of very important minerals.

As shown in figure 1, sub-Saharan Africa is a very important source of the ores of chromium, manganese and cobalt, which are three of the most critical nonenergy materials in short supply in the United States.

Two countries in southern Africa, Rhodesia and South Africa, together contain 97 percent of the world's high grade reserves of chromite, the

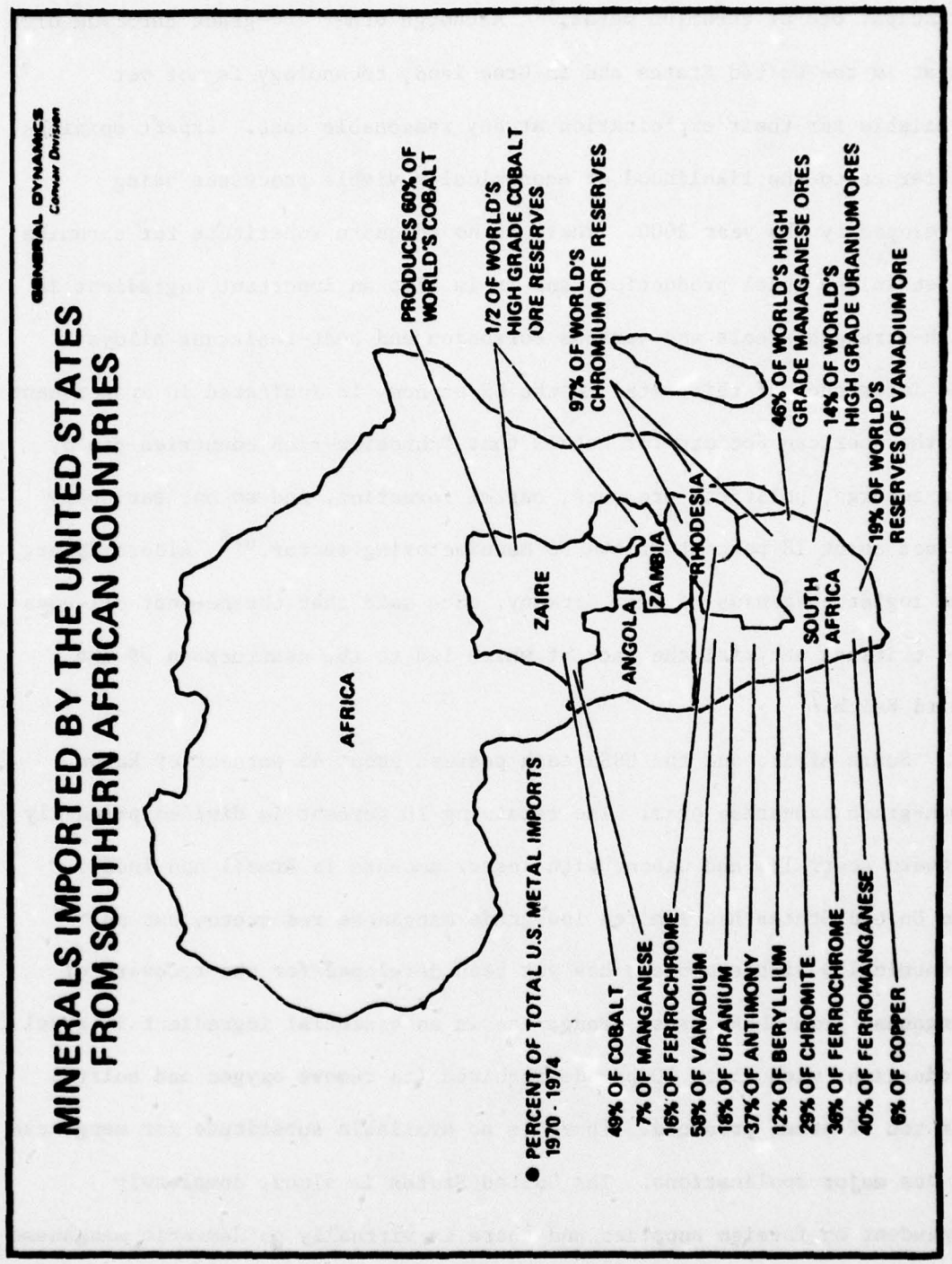

Figure 1. Sub-Saharan Africa and Critical Materials.[15]

principal ore of chromium metal.[15] Although other low-grade chromium ores exist in the United States and in Greenland, technology is not yet available for their exploitation at any reasonable cost. Expert opinions differ as to the likelihood of economically viable processes being developed by the year 2000. There is no adequate substitute for chromium in stainless steel production, and it is also an important ingredient in high-strength steels and various corrosion and heat-resistant alloys. The importance of this metal to the US economy is indicated in a statement by the American Society for Metals that "chromium-rich countries could, via embargo, political pressure, cartel formation, and so on, seriously affect about 18 percent of the US manufactoring sector."[16] Albert Speer, the logistics genius of Nazi Germany, once said that chrome--not oil--was the critical material the lack of which led to the destruction of the Third Reich.[17]

South Africa and the USSR each possess about 45 percent of known high-grade manganese ores. The remaining 10 percent is divided primarily between Australia and Gabon, with lesser amounts in Brazil and India. The United States has limited low-grade manganese resources, but no economically viable process has yet been developed for the recovery of manganese from these ores. Manganese is an essential ingredient in steel production, with 15 to 20 pounds required (to remove oxygen and sulfur) per ton of steel produced. There is no available substitute for manganese in its major applications. The United States is almost completely dependent on foreign supplies and there is virtually no domestic manganese mining industry.[18] Citing manganese alloys as an example, W. J. Kaestner

of the US Department of Commerce has called our increasing dependence on imports "a tragic and serious deterioration of the US defense (and industrial) base. . . ."[19]

Zaire and Zambia have almost one half of the world's high grade reserves of cobalt ore, necessary for the high temperature alloys used in jet engines and as a binder in heavy duty carbide cutting tools. US domestic mine production of cobalt ceased at the end of 1971. Although the United States is the world's principal consumer of cobalt and relies on imports for its supply, the availability of a Canadian source of supply, some domestic resources, and potential substitutes for many applications make cobalt somewhat less critical than chromium and manganese.

The current level of demand for aluminum, available technology, and economic factors limit the commercially useful ore of aluminum to bauxite. More than 85 percent of the US bauxite supply normally comes from the circum-Caribbean area (Jamaica, Surinam, Dominican Republic and Guyana). Although sizeable bauxite reserves exist in Australia, Guinea, and elsewhere, the grade and accessibility of the Caribbean deposits make them economically desirable. Other potential ores of aluminum, such as aluminous clays of the kaolin type are under investigation, and commercially competitive processes may be available to produce aluminum from such resources by the year 2000.[20] Until these new processes are established on a commercial basis, however, access to the high-grade bauxite sources in the Caribbean will retain a high priority among US economic interests in the region.

A POTENTIAL PROBLEM BY YEAR 2000

Columbium is a metal of limited economic or strategic significance today, but with the potential for great significance in advanced power generation systems of the year 2000 and thereafter. The 1975 columbium market was estimated at $35 million, with principal applications as an alloying element in large diameter pipeline steels, and ship-plate and heavy machinery steels. The great future potential for the use of columbium lies in the fact that certain of its alloys are the most efficient superconductors known, with the capability of transmitting an electric current with zero resistance at temperatures up to 23 degrees absolute. Ongoing studies under sponsorship of the Electric Power Research Institute are establishing the feasibility of superconducting power generation systems and point to annual savings of $660 million for the generators alone.[21] It is increasingly apparent that superconducting technology will be applicable to many future power-generating needs of US utilities, with a concomitant increase in the importance of columbium as a commercially and strategically significant material. Eighty-two percent of the world's known columbium reserves are located in Brazil, with an additional 8 percent in Canada, 4 percent in Zaire and about 3 percent in Nigeria. Brazil is also an important source of sheet mica and tantalum, both of which are present in only minor quantities in the United States. Although US demand for sheet mica is decreasing, the need for tantalum in the metals and electronics industries is growing at about 5 percent per year.[22]

Both optimists and pessimists can be found within the US materials community. On the one hand are individuals like Dr. John Morgan, acting director of the US Bureau of Mines, who believes:

> as long as we keep up our science and technology, pointing the way to using lower grade ores, the world has more resources now than ever, and there will be even more in the future. Given relative peace in the world, reasonable price incentives and a continued effort in technological development, we're not going to run out of anything.[23]

Conversely, in 1975 the National Academy of Sciences ranked tin as in potential worldwide shortage, and four other metals, including chromium, as vulnerable or highly vulnerable to the policies of other nations.

Unfortunately, Dr. Morgan's assumption of stability in international politics and economics cannot be depended upon in tomorrow's uncertain world. Even the staunchest of optimists will have to admit that for some materials a critical combination of circumstances can exist to place an assured US supply in jeopardy, to the detriment of US economic, political, or even military interests. We have shown that for certain materials, chromium, manganese, aluminum, cobalt, nickel, titanium (and in the future columbium), and for certain regions of the world, primarily southern Africa and Latin America, this critical combination already appears to exist. Conditions may change rapidly in either direction for either a critical material or a critical supplier nation. A mineral may become less critical if new ore deposits are discovered, substitutes are developed, or improved technology permits economic exploitation of lower grade ores. On the other hand, technological advances may bring about a significant increase in the economic or strategic importance of a specific material (e.g. columbium for superconductors in power generation). Similarly, the economic or political vagaries of the international scene may affect, either positively or negatively, the relationship between a critical

material supplier nation and the United States. There is a need for continuous monitoring of the strategic and critical materials position of the United States so that corrective strategic actions, including security assistance to supplier nations, can be anticipatory rather than reactive.

POLICY CONSIDERATIONS

US policy on SA has been fragmented and is definitely not the product of a coordinated effort by Congress and the Executive Branch. Recently, in the opinion of many observers, FMS have been authorized more as a reaction to events abroad than as a reflection of a consistent foreign policy. This lack of coherent policy on FMS is not the fault of the executive branch alone. Congress bears a measure of the responsibility as well for its failure to give more effective policy guidance and proper oversight to the SA program and policy.[24] Recently, however, there has been a notable change in Congressional attitudes toward SA. No longer is the Congress willing to respond unequivocally to Presidential requests in this area. Rather, SA has become a political issue--hotly debated and entangled with domestic concerns.

The impetus for a Congressional drive to overhaul US policies on FMS has been public alarm over the perceived explosive growth in international arms trade in recent years (especially in the Middle East); the dominant US role in this trade; and awareness that long-term consequences of SA programs were not being given adequate consideration. The most recent policy guidelines contain several key points:[25]

- The United States will henceforth regard arms transfers as an exceptional foreign policy implement, to be used only in instances where

it can be clearly demonstrated that the transfer contributes to US national security interests.

- The United States will continue to utilize arms transfers to promote its security and the security of our close friends, but in the future, the burden of persuasion will be on those who favor a particular arms sale, rather than those who oppose it.

- The restraints set in the new policy will apply to all transfers except those to NATO, Japan, Australia, and New Zealand. The United States will remain faithful to its treaty obligations, and will honor its historic responsibilities to assure the security of the state of Israel.

- The dollar volume (in constant FY 1976 dollars) of new commitments under the Foreign Military Sales and Military Assistance Programs for weapons and weapons-related items in FY 1978 will be reduced from the FY 1977 total.

- The United States will not be the first supplier to introduce into a region newly-developed, advanced weapons systems which would create a new or significantly higher combat capability. Also, any commitment for sale or coproduction of such weapons is prohibited until they are operationally deployed with US forces.

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

- Coproduction agreements for significant weapons, equipment, and major components (beyond assembly of subcomponents and the fabrication of high-turnover spare parts) are prohibited.

- In formulating security assistance programs, the United States will continue its efforts to promote and advance respect for human rights in recipient countries. It also will assess the economic impact of arms transfers on lesser-developed countries receiving US economic assistance.

These efforts at restraint should be continued even though the realities of the world situation are making it difficult for the United States to comply with policy guidelines. Where there is a well-established, well understood, publicly supported policy as in Western Europe (NATO), SA is not an issue. Where there are questions about the role and policy of the United States in a particular region, as in the Middle East or Persian Gulf, there is great controversy about FMS programs. Obviously, the sale of arms is a serious problem that must be better controlled.

IMPLICATIONS

Every sign points toward a continued growth in international arms trade, with emphasis shifting from military or ideological considerations to economic considerations. These signs indicate a potentially dangerous trend toward a return to the unstable multipolar condition of the pre-World War I and II days with profit-seeking arms companies hustling business much as they did then.

The unexpected oil crisis of 1973 exposed US vulnerability to pressures of limited resource supply. The resultant dramatic increase in US Security Assistance to the Middle East can be seen as an attempt to prevent a recurrence of oil problems for the US/Western world.[26] A new trend toward barter of arms for vital strategic resources appears to be emerging with respect to Middle East oil and the projected US dependence on other foreign

sources for additional scarce resources by the end of the Century. This trend implies a potential expanding role for SA, which flies squarely in the face of the announced US policy of restraint in conventional arms sales.

Despite the announced US policy to curtail FMS and use it only as an exceptional foreign policy implement, there looms the possibility of new demands for arms in Southern Africa and in Latin America (e.g., Brazil) in return for access to the strategic resources mentioned earlier. By between 1985-2000, both regions could have particular implications for Western security. The full extent of increasing US dependence on strategic materials in these regions is only now beginning to be understood, and has yet to be reflected in US policy.

It is important to keep in mind that, just as certain minerals are classed as strategic resources, so are bases, facilities, and overflight rights. Another US objective will be to continue an uninterrupted access to bases and facilities in regions important to US and Western security interests. The protection of important lines of communication (LOC's) requires that the Western powers have the ability to counter Soviet maritime power and deal with threats from local actors. In the Southern Atlantic, this means that access to friendly ports and bases be maintained and, equally important, that major bases not be established by the Soviet Union. In this context, the geostrategic importance of Southern Africa, Brazil, and certain islands must be better appreciated.

CONCLUSIONS

In addition to the paramount importance of achieving and preserving a stable international environment, the United States will recognize an equally vital need to pursue policies conducive to continuing access to a growing number of foreign strategic resources. Denial or curtailment of this access would represent a threat to the security and economic well-being of the United States and other free-world nations. The recent oil crisis exposed US vulnerability to pressures of limited resource supply by making it difficult to apply the desired restraint announced in US arms sales policy.

It should be clear that US planners must become increasingly aware of the potential strategic resource problem and take steps now toward avoiding future resource crises and runaway arms sales as experienced in the Middle East. While Security Assistance will remain a crucial instrument of our national policy along with political and economic support, an expanded role for Security Assistance clearly should be avoided. Such action would not necessarily ensure long-term friendship with recipients and could exacerbate the potentially dangerous trend toward an unstable multipolar condition whereby arms are sold to any country willing to buy them with little or no attempt at controls.

This implies immediate development of alternative incentives aimed at assuring a continuing access to foreign sources for vital strategic materials. This could include such activities as assistance in mining and extractive technology of a strategic material, development of the logistical infrastructure of a developing country, and such other economically oriented assistance as directly affects the economic stability--and thus the security--of the recipient country.

Of all the potential alternative incentives for assuring access to foreign sources for vital strategic materials, it would appear that Security Assistance requires greater awareness, understanding, and planning if an uncontrollable arms race is to be avoided. Thus, where Security Assistance is considered in any future role as quid pro quo for strategic resources, a continued policy of restraint should be pursued with a more thoughtful evaluation of the long-term implications of conventional arms sales.

ENDNOTES

1. Lewis A. Frank, The Arms Trade in International Relations, p. 20.

2. US Congress, Senate, Committee on Foreign Relations, Arms Transfer Policy, p. 5. (Hereafter referred to as "Arms Transfer Policy").

3. Leslie H. Gelb, "Arms Sales," Foreign Policy, Winter 1976, p. 5.

4. US Congress, Senate, Committee on Foreign Relations, Subcommittee on Foreign Assistance, Foreign Assistance Authorization: Arms Sales Issues, Hearings, p. 59. (Hereafter referred to as Arms Sales Issues).

5. Robert C. Harkavy, The Arms Trade and International Systems, pp. 32-33.

6. Department of State, Bureau of Public Affairs, GIST, December 1975.

7. Gelb, p. 8.

8. Robert L. Pfaltzgraff, et. al., The Other Arms Race, p. xii.

9. Gelb, p. 16.

10. Roy A. Werner, "Oil and US Security Policies," ORBIS, Fall 1977, p. 670.

11. Status of the Mineral Industries, Bureau of Mines, US Dept of the Interior, 1976, p. 5; Minerals and Materials: A Monthly Survey, Bureau of Mines, US Dept of the Interior, January 1977, p. 14; Materials Policy Handbook, Congressional Research Service, Library of Congress, June 1977, p. 133.

12. Alwyn H. King, Materials Vulnerability of the United States--An Update, Special Report, Strategic Studies Institute, USAWC, 30 April 1977, pp. 17-18.

13. Michael P. Lavis, Critical Resources and Their Implications on US Economic and Foreign Policy, Air War College Prof Study No. 5983, 1976, p. 21.

14. Mark D. Levine, Strategic Resources and National Security, text of a presentation at DOD Materials Shortage Workshop, Jan 1975, Stanford Research Institute, pp. 4, 22.

15. Abraham Hurlich, "Planet Earth's Metal Resources," Metal Progress, Oct 1977, p. 66; "Hurlich Sounds Warning on Materials," ASM News, Sep 1977, p. 3.

16. "Technology Awareness," ASM News, August 1975, p. 3.

17. E. F. Andrews, Presentation at DOD Materials Shortage Workshop, Jan 1975.

18. Materials Policy Handbook, op. cit., pp. 123, 126; Commodity Data Summaries, 1976, Bureau of Mines, Dept of the Interior, Jan 1976.

19. "Technology Awareness," op. cit.

20. Commodity Data Summaries, 1976, op. cit.

21. Mario Rabinowitz, "Superconductivity in Power Generation," EPRI Journal, Oct 1977, pp. 54-59.

22. Commodity Data Summaries, 1976, op. cit.

23. Ben A. Franklin, "Shortages Are A Matter of Perspective," The New York Times, 27 Nov 1977, p. E-5.

24. Arms Sales Issues, p. 12.

25. Harold Brown, Department of Defense Annual Report, FY 1979, p. 247.

26. Peter M. Dawkins, "Conventional Arms Transfers and Control," Controlling Future Arms Trade, 1977, p. 123.

BIBLIOGRAPHY

Bureau of Mines, Commodity Data Summaries, 1976, US Dept of the Interior, Washington, DC: January 1976.

Bureau of Mines, Minerals and Materials: A Monthly Survey, US Dept of the Interior, Washington, DC: Jan 1977.

Bureau of Mines, Status of the Mineral Industries, US Dept of the Interior, Washington, DC: 1976.

Congressional Research Service, Materials Policy Handbook, Washington: US Government Printing Office, 1977.

Council on International Economic Policy, Special Report--Critical Imported Materials, Washington: US Government Printing Office, Dec 1974.

Frank, Lewis A. The Arms Trade in International Relations, New York: Praeger, 1969.

Gelb, Leslie H. "Arms Sales." Foreign Policy, Winter, 1976.

Harkavy, Robert E. The Arms Trade and International Systems. Cambridge: Ballinger Publishing Company, 1975.

Metals and Ceramics Information Center, Proceedings of the DOD Materials Shortage Workshop, Columbus, Ohio, Jan 1975.

Metals and Ceramics Information Center, Proceedings of the Workshop on Government Policies and Programs Affecting Materials Availability, Columbus, Ohio, Feb 1976.

Moench, John O. "Military Security Assistance," Ordnance, July-August 1973.

Pfaltzgraff, Robert L., Jr., et. al. The Other Arms Race. Lexington, Mass: D.C. Heath and Company, 1975.

US Congress. Committee on Foreign Relations. International Security Assistance and Arms Export Control Act of 1976. Washington: January 30, 1976.

US Congress. Committee on International Relations. International Security Assistance Act of 1976. HR 11963. Washington: 1976.

US Congress. Senate. Committee on Foreign Relations. Subcommittee on Foreign Assistance. Foreign Assistance Authorization: Arms Sales Issues. Hearings, 94th Congress, 1st Session. Washington: US Government Printing Office, 1976.

US Defense Security Assistance Agency. Congressional Presentation. Security Assistance Program. Washington: February 1978.

US Department of Defense. Defense Security Assistance Agency. Military Assistance and Sales Manual. Washington: 1978.

US Library of Congress. Congressional Research Service. Implications of President Carter's Conventional Arms Transfer Policy, by Herbert Y. Schandler, e. al., Washington: 22 September 1977.

US Military Academy. Arms Transfers Report of Senior Conference. West Point: June 1976.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ACN 78066	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) The Role of Security Assistance in Maintaining Access to Strategic Resources		5. TYPE OF REPORT & PERIOD COVERED Special Report 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) William B. Hankee and Alwyn H. King		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Strategic Studies Institute US Army War College Carlisle Barracks, PA 17013		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE 20 September 1978 13. NUMBER OF PAGES 25
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

None

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Security Assistance; Strategic Resources; US Foreign Policy; International Arms Trade; Critical and Strategic Materials.

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This special report reviews the role of Security Assistance as an instrument of US foreign policy, and discusses the current trend toward a continued growth in international arms trade and a discernible shift from a military/ideological orientation to a greater emphasis on economic considerations. The implications of US dependence on foreign sources of oil, and the effect of this situation on Security Assistance planning and control, are addressed. An assessment is provided of the potential future use of Security Assistance in maintaining access to other strategic resources in key global regions.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

(NOT USED)