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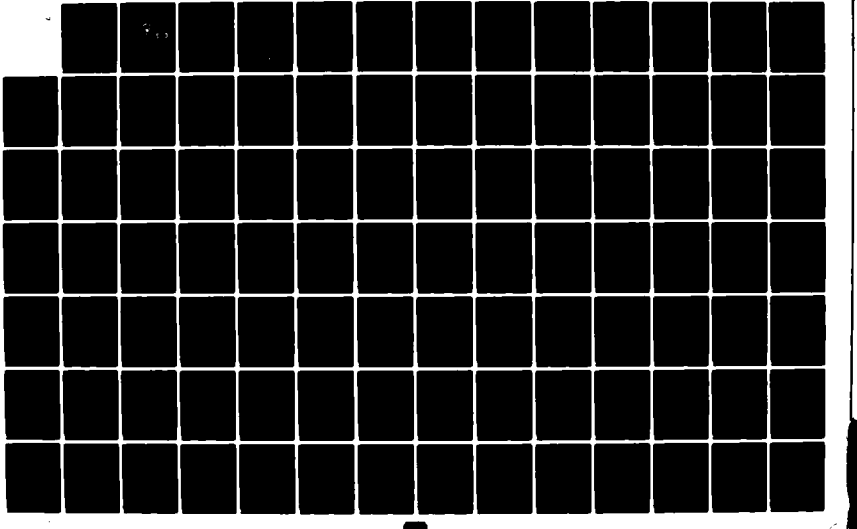

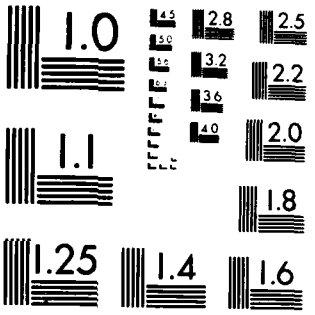

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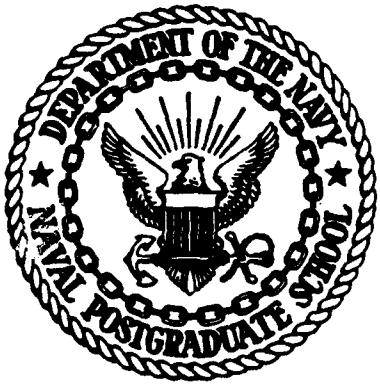

THESIS

SECURITY ASSISTANCE RATIONALES:
THE SOVIET UNION AND
EASTERN EUROPE

by

Richard V. Kikla

December 1983

Thesis Advisor: E. Laurance

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This thesis analyzes Soviet arms transfer policies within the Warsaw Treaty Organization relative to three perspectives; political and diplomatic, strategic and military, and economic. The political and diplomatic perspective emphasizes political control and maximization of Soviet influence as a primary rationale for Soviet arms transfers. The strategic and military perspective emphasizes military power and the maximization of

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the Warsaw Treaty Organization's military potential as an alliance. The economic perspective focuses on the Soviet military-industrial complex and internal decision-making as a factor in arms transfers.

The inter-relationship of these three perspectives defines the objectives and limitations of Soviet arms transfers within the Warsaw Treaty Organization. The thesis concludes that the quality of Soviet arms transferred to the WTO will always be at least a generation behind thos equipping Soviet forces and that East European license production will only be of equipment that is relatively obsolete by Soviet standards.

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Security Assistance Rationales: The Soviet Union and Eastern Europe

by

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Lieutenant, United States Navy
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Submitted in partial fulfillment of the requirements for the degree of

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ABSTRACT

This thesis analyzes Soviet arms transfer policies within the Warsaw Treaty Organization relative to three perspectives; political and diplomatic, strategic and military, and economic. The political and diplomatic perspective emphasizes political control and maximization of Soviet influence as a primary rationale for Soviet arms transfers. The strategic and military perspective emphasizes military power and the maximization of the Warsaw Treaty Organization's military potential as an alliance. The economic perspective focuses on the Soviet military-industrial complex and internal decision-making as a factor in arms transfers.

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I. INTRODUCTION

A. ARMS SALES RATIONALES

Over the last decade increased research has focused on arms sales and the implications of security assistance. Studies have been initiated on superpower transfers to the Third World and related influence, recipient and supplier rationales for the transfer of arms, and the development of Third World arms suppliers. Within this body of theoretical and empirical work seemingly little has been done concerning the Soviet-Eastern Europe arms connection. This thesis will study Soviet security assistance to Eastern Europe from three separate vantage points: Political/Diplomatic; Strategic/Military; and Economic [Ref. 1].

The Political/Diplomatic perspective asserts Soviet military assistance is an instrument of Soviet control of Eastern Europe. Through the Warsaw Treaty Organization (WTO), the Soviet Union minimizes the political flexibility of member states by decreasing the capability of the military to support national policy. Christopher Jones states that

> Moscow and its proteges in the Eastern European parties together prevent the defense ministries of the loyal Eastern European states from adopting military strategies which would greatly limit the Soviet capabilities for intervention against local anti-communist forces. [Ref. 2]

In this view, the WTO is primarily a means of indirect control of the East European nations and only secondarily a

collective security organization. The fighting capabilities of the WTO will always be secondary to Soviet concerns over the independence of the separate military ministries and the soveriegnty entailed. The national means of resistance is limited through increased dependence upon the Soviet defense system.

The strategic/military perspective is supported primarily by the Soviet Union. Marshal of the Soviet Union V.S. Kulikov, First Deputy of the USSR Minister of Defense and Commander-in-Chief of the Joint Armed Forces of Warsaw Pact Member States, notes: "common goals of armed defense of socialist achievements by collective efforts by the brother peoples and their armies comprise the military strategy foundation of the fighting alliance of socialist countries." He continues that "the socialist mode of production and public ownership of the means of production which prevail in the allied countries [WTO] form the economic basis of our community. This unifies the socialist countries and finds expression in selfless cooperation and mutual assistance among the Warsaw Pact nations." Marshal Kulikov stresses the collective nature, selfless cooperation and mutual assistance among the member states. The picture developed by Russian writings on the WTO depicts a coalition of national armies with the shared goal of protecting the socialist gains: each member selflessly supplying what assistance is necessary for the betterment of the coalition as a whole [Ref. 3].

Due to secrecy within the Soviet Bloc concerning the functioning of the military industrial complex, little has been written on the economic considerations of Soviet East European transfers. Marshall I. Goldman points to the failure of the Soviet economic system but excludes the military branch. Goldman states: "Not only does the Soviet Union produce large quantities of traditional heavy arms equipment, but unlike the civilian industry, it generally produces good quality, and often innovative military products as well." The success of the military side over the civilian sector lies, according to Goldman, in the priority and bonuse afforded the military/industrial complex [Ref. 4]. Goldman notes:

> Managers in the military industry, unlike their counterparts in the civilian world, are provided with more flexibility, more capital and more skilled labor. The Soviets seem to gather together the best specialists and engineers and assign them to special military factories and provide them with special housing and other material privileges. [Ref. 5]

This produces a privileged class whose position rests on the strength of the military-industrial complex. Eastern Europe provides a market for Soviet arms and thereby helps justify the need for a large military-industrial capability.

In viewing Soviet-East European arms transfers from the Political/Diplomatic, Strategic/Military and Economic perspectives, this study will attempt to determine the validity of the perspectives, their inter-relationships, and their effects on Soviet WTO arms assistance. The thesis is that these rationales do fit Soviet East European arms assistance

but not in the same fashion as in the West. The control of the political system over all facets of society coupled with the centralized nature of the economic system change the political-economic structure within which the rationales operate. All major decisions and policy formulations are made by the eleven to fifteen members of the Politburo. Any influence on the decision-making process must be made through these members. External interests have little sway over policy. Concurrent with this, access to the political process, political power, and special status, are the rewards within the system. The ability to gain admittance to special stores, travel abroad or own a "dacha" are determined by one's status. The relative status positions are determined by the political system not economic or educational standings. Considering the structural environment, the three rationales are operative but function under different criteria. The economic imperative of the defense complex is not concerned with corporate profit as in the West but with maintenance of its position as a privileged sector within the economy. The military imperatives are concerned not with the maintenance of a traditional alliance but with the utilization of East Europe as a defensive zone for the Soviet Union. The political imperative is the removal of a national means of resistance in Eastern Europe and the subsequent undermining of East European national sovereignty.

B. RESEARCH LIMITATIONS AND PRECONCEPTIONS

Availability of accurate data is an ongoing problem in any study of arms transfers. Contradictions from year to year concerning Soviet arms transfers exist in all major publications. The data in this thesis is derived from SIPRI publications, the IISS Military Balance, Jane's publications, U.S. Defense Department unclassified reports, and various articles, in an attempt to provide as complete and accurate a data base as possible. Even so, the information is sketchy and some contradictions may exist.

The primary preconception at the initiation of research on this thesis was that the WTO functions as an instrument of Soviet control. Though this perception is still held, there is a realistic military function to the WTO that should not be overlooked. Soviet policy is based upon control, but the utilization of Eastern European military power is also a Soviet concern.

In researching the three imperatives of Soviet arms transfers to Eastern Europe various techniques were used. Chapter II, focusing on political/diplomatic imperatives, uses a set of eleven factors to guide research and establish relative influence levels between the WTO states. This chapter demonstrates that Soviet arms transfer policies decrease the national means of resistance and increase Soviet influence. Chapter III, the military/strategic imperatives, studies the WTO and armament policies from the perspective of a traditional alliance. This chapter demonstrates that the

non-Soviet members of the WTO are not equal partners with the Soviet Union. East European military potential is only allowed to develop to the degree that it augments Soviet defensive capabilities and not the defense requirements of the individual nation-states. Chapter IV, the economic imperatives, demonstrates the existance of a military-industrial complex within the Soviet Union. This complex, through access to political elites, uses Eastern Europe as a closed arms market which then justifies the need for a large military-industrial sector. The last chapter, Chapter V, reviews the findings of the study and concludes that little change can be expected in Soviet arms transfer policies to Eastern Europe. Soviet imperatives require the subordination of East European defense capabilities to that of the Soviet Union's.

II. POLITICAL/DIPLOMATIC IMPERATIVES

A. RATIONALE

> Indigenous defense production is an expression of national sovereignty. A responsibility for the government of any state is to ensure survival of its citizenry, and local production of arms is one of many instrumentalities for fulfilling that responsibility. To be sure, the degree to which indigenous defense production contributes to securing national survival is constrained by the resources at a state's disposal, its technological sophistication, and a host of other factors. Often, other instrumentalities such as diplomatic positioning, economic vitality, or even arms purchases are more important than indigenous defense production for sustaining national integrity.
>
> Nevertheless, if most states could provide for their own survival through local defense production, they would, and it is clear that many states want some form of this capability, even if it is only symbolic, as a sign of their national sovereignty. [Ref. 6]

This statement by Michael Moodie underscores the relationship between national sovereignty and defense production. In practical terms, military self-sufficiency removes any possibility of manipulation of defense requirements by a second state. Defense decisions can be solely based on internal constraints with no regard for the economic or political vacillation of a supplier state. Psychologically, self-sufficiency produces self-confidence within the leadership and the population. The nation-state is providing for its own security without having to be dependent or thankful to a big brother state. The ability to provide for one's own security is a major factor of national sovereignty.

Soviet policies in relation to security assistance within the WTO have worked to undercut the national sovereignty of the member nations. Through the guise of standardization and specialization, the Soviet Union has established control of the defense-industrial bases of the WTO members. Standardization induces the member states to acquire the same equipment to enhance the compatibility and efficiency of the WTO armies. Specialization requires the efficient organization of defense industry within the WTO to maximize the effects of comparative advantage. Then, with her large military industrial capabilities, the Soviet Union dominates armament design and production within the alliance. Controlling the armament requirements, production, and flow, has allowed the Soviet Union to establish long term influence over the WTO states. Their national means of resistance is limited through increased reliance upon the Soviet defense system. The actual influence is exerted not by the threat of termination of Soviet assistance, but by the lack of a national means of resistance in the face of overbearing Soviet military power.

Table I is a list of supplier influence indices derived from Ann Hessing Cahn's eleven factors of influence maximization [Ref. 7]. The Soviet East European arms connection will be studied relative to these eleven indices to demonstrate the effect of Soviet assistance upon the national defense posture of the WTO states. The eleven factors provide two analytical functions. First, they provide a

framework of indices that reflect the relevant issues concerning arms transfers and influence. By researching the eleven indices relative to the Soviet Union and the WTO a clearer picture of the WTO defense establishment can be determined. Secondly, the assignment of values to each of the eleven factors creates a chart indicating Soviet influence trend levels among the WTO members. For this study, values were assigned in the following manner:

"++" - highly in favor of the Soviet Union. The effect of this factor upon the recipient functions to maximize Soviet influence potential

"+" - in favor of the U.S.S.R. This factor favors Soviet influence potential but to a lesser degree than "++"

"0" - neutral factor. Does not maximize or decrease Soviet influence potential

"-" - in favor of the recipient, decreases Soviet influence potential

"--" - highly in favor of the recipient. Functions as reverse influence upon the Soviet Union.

Once assigned, the values will indicate rough trends of Soviet influence potential which then can be verified against actual foreign policy initiatives of the WTO member states. The lower the national means of defense, the higher the correlation should be between WTO member states' foreign policy initiatives and Soviet initiatives. If

TABLE I

SOVIET MAXIMIZATION TABLE

FACTOR	RECIPIENT Bulgaria	Czechoslovakia	GDR	Hungary	Poland	Romania
Strategic Location	+	++	++	+	++	0
Raw Resources	++	++	++	++	++	0
Pariah State	0	0	0	0	0	0
Prestige	0	0	0	0	0	0
Inventory Capability	+	+	+	+	+	+
Advisory Personnel	0	0	0	0	0	0
Alternate Sources	++	++	++	++	++	+
Financial Abilities	++	++	++	++	++	++
Threat	0	+	++	0	+	-
Indigenous Production	++	+	++	++	+	+
Ideology	++	++	++	++	++	+

Derived from Ann Hessing Chan's "United Arms to the Middle East 1967-1976; a Critical Examination," Great Power Intervention in the Middle East edited by Milton Leitenberg and Gabriel Sheffer, Pergamon Press 1979, p. 111.

++ = highly in favor of USSR; + = in favor of USSR; 0 = neutral; - = in favor of recipient; -- = reverse influence over USSR.

Soviet arms transfers are intended to lower the national means of defense, then this objective should be reflected in many of the individual indices and in the overall trend developed within Table I.

B. STRATEGIC LOCATION

By viewing a map, the strategic importance of Eastern Europe to the Soviet Union is readily apparent. Providing both a buffer zone and a jumping-off position, East Europe lies across the traditional invasion routes into Russia. In his studies, Thomas Wolfe maintains that strategic access and forward deployment of Soviet troops is a major factor in Soviet WTO policy. Defensively, forward deployment provides a buffer against both ground and air attacks. Any invasion would be fought on German and Polish soil vice Russian. Offensively, East Europe acts as a springboard for Soviet troops. Ground and air forces, logistics and support facilities are in place forward deployed to launch an invasion [Ref. 8]. A. Ross Johnson supports this contention maintaining that Soviet policy requires "a strong military position east of the Elbe" with the primary Soviet concern being the maintenance of a security buffer zone and, secondarily, the deployment of offensive forces [Ref. 9].

Within Eastern Europe, there is a differentiation of the strategic importance between the Northern and Southern tier states. The Northern Tier states of East Germany, Poland, and Czechoslovakia are seen as of more importance

to Soviet defense than the southern states of Hungary, Bulgaria and Romania. A. Ross Johnson points to the gradual bifurcation of the WTO into a northern and southern tier and asserts that the northern states are the primary area of concern with the southern states being secondary [Ref. 10]. Ivan Volgyes in his study points out that the North German plain is far more suitable for Soviet armored operations than the mountainous terrain of the Southern tier. He demonstrates through force comparisons that the Soviet emphasis is on the northern tier. As Table II shows, in aircraft, tanks and personnel, the northern tier countries hold a

TABLE II

NON-SOVIET FORCE LEVELS; 1981

	Ground Forces	Air Forces	Naval Forces	Combat Aircraft	T-54 T-55 T-62	T-72
Northern tier	458,000	178,000	38,500	1,518	9,300	400
Southern tier	327,000	89,800	20,500	708	4,350	160

Source: The Military Balance, 1980-1981 (London: International Institute for Strategic Studies, 1981) pp. 15-17.

military edge over the southern tier [Ref. 11]. Thomas Wolfe adds that, in the case of Poland and Czechoslovakia, the internal production of light helicopters and jet trainers further emphasizes the importance of the northern tier to

the Soviets. In Wolfe's view, the Soviets encouraged the development of these industries in the two states and therefore demonstrated that they are set apart from the rest of the WTO [Ref. 12].

Ann Cahn in developing the eleven factors of supplier influence maximization views holding a strategic position as being beneficial to the recipient [Ref. 13]. If the supplier needs the bases or strategic access then he is less likely to terminate assistance and therefore the recipient has increased latitude for bargaining. Though this may hold in the Third World, the opposite is in effect in Eastern Europe. The overbearing strategic importance of Eastern Europe as a direct access route to the Soviet Union and the proximity of Soviet military power means the Soviets will be less likely to tolerate divergence. The Soviet Union in Hungary, 1956, and Czechoslovakia, 1968, has demonstrated the capability and will power to use force to maintain her strategic access. For Table I, strategic position was therefore seen to be in favor of the Soviet Union. The northern tier states, due to their increased strategic position were given a "++" value, while the southern tier states of Bulgaria and Hungary were assigned a slightly less value of "+." Since the only non-WTO state that it borders is Yugoslavia, Romania was assigned a neutral value.

C. RAW RESOURCES

As with strategic position, the function of raw resources is usually to provide the recipient with a bargaining lever.

If the recipient controls scarce resources, then supply of those resources may have an influencing effect upon the Soviet Union. In reality, the circulation of scarce resources within the Soviet Bloc flows from the Soviet Union into Eastern Europe.

The Soviet Union with its vast resource base in Siberia is not dependent upon Eastern Europe for any scarce resource. Eastern Europe though is becoming increasingly dependent upon the Soviet Union for her energy needs. Ronald Oechsler and John Martens show Poland, Czechoslovakia, Hungary, Bulgaria and the GDR with below 50,000 barrels a day of domestic oil production in 1978. Romanian oil production was up to 290,000 barrels a day but stagnating, and since 1978, she has become a net importer of oil. In each of the cases domestic consumption is rising, increased trade deficits are developing with the OPEC nations, and the East European states are looking toward the Soviet Union to provide more oil. While the GDR, Poland, Hungary, Bulgaria and Czechoslovakia import the vast majority of their oil from the USSR, Romania's major supplier is OPEC [Ref. 14].

East European states are looking towards nuclear power to alleviate the energy problems of the future. Soviet designed nuclear power stations are operating in Bulgaria, Czechoslovakia, East Germany and, of course, the USSR [Ref. 15]. Lesley Fox reports that, in the case of Poland and Hungary, construction of Soviet nuclear power stations are

in progress. Hungary planned to have its first reactor on the line by 1980 but lack of skilled workers and production problems with the reactor vessels have delayed the activation of the plant. Poland, long dependent upon its resources of coal and lignite, is just beginning to develop nuclear power to offset growing energy problems. In 1977 Poland contracted for Soviet equipment but current political and economic problems have slowed the development of its nuclear program. Romania is also moving into the nuclear energy field but with Western technology not Soviet. The Romanian nuclear power plant is being built by an association of Canadian and Italian firms. There are some reports of the Soviet Union also building a nuclear power plant in Romania but the Romanian press has not commented on any such plant [Ref. 16].

Through the use of joint investment programs, Eastern Europe has been increasing its dependence on the Soviet Union for raw resources. Table III is a breakdown of principal joint projects in the 1976-1980 plan. The projects require participating states to provide a percentage of the development capital (in terms of equipment, labor or hard capital) to exploit resource deposits. In return, each state receives a portion of the developed resource for a given period of time. In the case of the Orenburg project, the return to Eastern Europe for development investment will be 15.5 billion cubic metres of natural gas each and every year

TABLE III

PRINCIPAL MULTILATERAL DEVELOPMENT PROJECTS UNDERTAKEN BY CMEA MEMBER COUNTRIES IN THE 1976-80 PLAN PERIOD

Project	Location	Agreement Signed	Facility Operational	Participation[1]	Volume of Annual Return Deliveries
Pulp mill	U.S.S.R. (Ust-Ilim, Siberia)	1972	1980	All but Czechoslav.	205,000 metric tons
Asbestos combine	U.S.S.R. (Kiembaev, Urals Region)	1973	1980	All	40,000-50,000 metric tons
Development of natural gas condensate deposit and construction of trans-continental gas pipeline	U.S.S.R. (Orenburg, Urals Region)	1974	1980	All; but limited role for Romania	15.5 billion cuvic metres
Expansion of iron ore mining and dressing facilities (5 combines)	U.S.S.R. (various locations, in area of Kursk Magnetic Anomaly and in Ukraine)	1974	1977-80	All but Romania	5.29 million metric tons
Additional facilities for production of ferro-alloys (7 plants)	U.S.S.R. (various locations in Ukraine and Kazakhstan)	1974	1977-80	All	Not available
750-KV Vinnitsa-Albertirsa electric power transmission line)[2]	Soviet Ukraine and Hungary (590 of the 850 kilometer lengths is in U.S.S.R.)	1974	1978	All but Romania	3 billion kwh[3]
Nickel and cobalt production facilities	Cuba (Las Camariocas)	1975	N.A.	All	Not available

[1]Extent of participation by East European CMEA member-countries.

[2]Component of CMEA "Master Plan for Long-Term Development of United Power Grids."

[3]Estimate.

REPRINT; East European Economic Assessment; Regional Assessment Part 2; Joint Economic Committee, U.S. Government Printing Office, Washington, D.C. 1981, p. 271.

for twenty years [Ref. 17]. In effect, the resource will be paid for in advance by the European states with development capital, but the Soviet Union will maintain control of the resource since the majority of the joint projects are inside her territory. The increasing trade deficits and the cost of the joint projects will further limit options for resource needs outside the Soviet Union. Romania's reliance upon OPEC will increasingly come into question as her economy falters. The prospect for nuclear power solving, or at least minimizing, energy problems will also have a Soviet contingent. The Soviets supply the fisionable material, technology, and the majority of the equipment for the nuclear plants.

This paper does not intend to address the costs and benefits of the Soviet-East European resource exchange. The loss to the Soviet Union in opportunity costs by selling resources to Eastern Europe below world market prices is an issue that needs to be studied. Definitely the East European nations are gaining economically from the resource trade but this paper is concerned with the political costs. The joint investment projects lock the East European economies into the Soviet resource supply. As Table III shows, Romania is the only country of the WTO that has consistently steered clear of the projects. East Europe, with the exception of Romania, is dependent upon the Soviet Union for oil imports. The total reliance of the WTO members,

outside of Romania, on Soviet resource development means Eastern Europe is dependent upon theSoviet Union in this area. Therefore on Table I, the resource factor was seen as being highly in favor of the Soviet Union. Romania was given a neutral value since, at least for the present, it is not dependent upon Soviet resources.

D. PARIAH STATE

The pariah syndrome refers to a situation where a recipient is locked into a supplier due to the recipient being an outcast of the international arena. If the pariah recipient cannot produce its own arms then it is dependent upon the one supplier (if any) that is willing to incur negative international feeling to supply arms. In the case of Eastern Europe, none of the nations fit this category. Though Eastern Europe may be locked into Soviet armaments for financial or ideological reasons, the pariah syndrome is not a factor.

E. PRESTIGE

The prestige factor of arms sales has two components. First, the prestige acquired through receiving arms from a particular supplier. The supplier's armaments have a reputation for being the best which then reflects upon the military power of the recipient. Second, the sale of a particular weapon system can indicate a recipient pecking order. The ability of a recipient to acquire advanced armaments before

others within the region from the same supplier gives the initial recipient the prestige of being the "chosen one."

Within Eastern Europe, the prestige of owning Soviet arms in general is not a factor. The perceived performance of Soviet arms in the Middle East conflicts, regardless of the justness of the perception, has cast doubts on the quality of Soviet weapons. A. Ross Johnson in his study on the northern tier discussed Polish dissatisfaction with Soviet arms transfer policies. He states that after the Arab defeat in the 1967 war there was admiration of Israeli equipment and tactics, and disparagement of Soviet equipment and tactics [Ref. 18]. The Wall Street Journal points to Soviet explanations after the defeat of Soviet arms in the 1982 Lebanon invasion by the Israeli's and states:

> The real point is that the Soviet complaint was spoken like the arms merchant that Moscow has become, Soviet sensitivity on the subject betrays its fear that the reputation of its arms has suffered such a grievous blow that it would dry up one of Russia's main sources of foreign exchange earnings. [Ref. 19]

Internationally, the repeated failures of Soviet arms in the Middle East has cast some doubt on the quality of Soviet weapons. This doubt, regardless of how realistic, negates any prestige factor in owning Soviet weapons.

Table IV is a chart of Soviet major equipment transfers into Eastern Europe during the 1970s. Though there is a difference in equipment transfers between the Northern and Southern tier, the equipment that was transferred seems to be fairly consistent in contract/delivery dates. In

TABLE IV

SOVIET MAJOR EQUIPMENT TRANSFER TO EASTERN EUROPE: 1969-1982

	T-62	T-72	SU-20	Mig-23	ZSU-23-4
GDR	1969[1]	1978	1974	1979	1975
Poland	1969[1]	1978	1974		1975
Czechoslovakia	1969[1]	1978	1974	1978	1975
Hungary	1969[1]	1978		1980[1]	
Bulgaria	1969[1]	1978		1978	1975
Romania	1969	1978		1981[2]	1975

-- all dates suspected contract dates except where indicated.

[1]Suspected delivery date

[2]Listed in 1981-1982 Military Balance

Sources: Compilation of the following sources:

1. Military Balance, years 1971 to 1982; International Institute for Strategic Studies, London
2. World Armaments and Disarmaments Yearbook, years 1970 to 1982; Stockholm International Peace Research Institute.
3. Jane's All the Worlds Aircraft; years 1970-1982. Jane's Publishing Company, London.
4. Jane's Armour and Artillery, 1982-1983, Jane's Publishing Compnay, London, 1982.

the case of the T-62 and T-72 tanks, the WTO members received each tank series within the same years. With the exception of Hungary, the ZSU-23-4 self-propelled anti-aircraft gun was contracted for uniformly by the WTO in 1975. The SU-20 was not received by the southern tier but was contracted for by all three northern tier states in 1974. The Mig-23 was sent to each member except Poland, the contracts for the other five members were probably issued between 1978 and 1979. The chart does not indicate in any of the cases that a state has consistently been favored by early or unique deliveries. Prestige as an influence factor was given a value of neutral.

F. INVENTORY CAPABILITY

Inventory capability refers to the ability of a recipient to store enough equipment and supplies to carry out military operations without being dependent upon resupply from the supplier state. If a state is dependent upon resupply then military operations will be contingent on the desires of the supplier. The classic example of influence through lack of inventory being the U.S.' withholding of equipment from Israel in the Arab-Israeli 1973 war to save the Egyptian 3rd. Army.

Little is known of the logistics or inventory capability of the non-Soviet WTO armies. The 1981-1982 Military Balance states in passing:

> Some pact nations may also suffer from shortages, but the fact that their equipment is standardized would enable them to restock more quickly. The Soviet logistic system, which uses a mix of rail, road and pipeline, has been greatly improved in recent years. [Ref. 20]

This indicates that the WTO members may be fairly dependent upon the Soviet logistic system. Logically, since the Soviet Union supplies the majority of the oil (with the exception of Romania) and military equipment, the capability of WTO members to fight without Soviet support would be limited. Therefore inventory capability was seen as favoring the USSR.

G. ADVISORY PERSONNEL

There are two aspects to advisory personnel. First, the need of the recipient to have access to advisory personnel to train her military in the use, both technical and tactical, of the new equipment. If a state cannot militarily function effectively without advisory personnel, then successful military operations are dependent upon the support of the supplier state. Second is the question of overall training and doctrine. What effect does the cultural and military doctrinal education programs given in the supplier country have on the recipients military elite? The recipient military elite may become closer affiliated to the supplier's culture and values than to their own.

The first aspect, in-country advisors, is seen as having no influential effect. All of the WTO member states have

been operating Soviet equipment for decades and need little outside instruction. Many of the members have provided instructor personnel on Soviet equipment to third parties. The loss of Soviet advisors would not impair the combat effectiveness of the WTO members.

The second aspect, long-term effects of exchange programs, is much more difficult to quantify. A. Ross Johnson, Robert Dean, and Alexander Alexiev indicate that the training of WTO military elites within the Soviet Union may have more effect than initially believed. Concerning Poland, prior to the establishment of the current military government, they contend that though the Polish military retains its ethos as guardian of Polish national interest, it also is closely linked to the professional Soviet military and takes seriously its responsibilities in the WTO. They also maintain that the GDR military, lacking legitimacy, has even closer relations to the Soviet military than Poland. Ideology and defense of the socialist commonwealth provides a rationale for the separation of Germany and the existence of the GDR military [Ref. 21].

This falls short though of demonstrating that the military elites feel more affiliated with their Soviet counterparts than their national governments. Reports of dissatisfaction with Soviet support and the arrogance of Soviet troops within WTO territory would seem to dampen the Soviet-East European military relationship. While the educational exchanges may function to lessen anti-Soviet

feelings and help integrate the East European military elites into the coalition doctrine, it does not replace the traditional national tendencies of the military. The military is in a position of not working against Soviet hegemony, but, not really working in favor of Soviet control either. This may be argued against in the case of the military takeover in Poland, but certain points need to be remembered in the Polish case. First, the professional military has not been used in quelling disturbances. Elite political para-military forces have been used in all civilian related operations. Second, after the collapse of the Party, the establishment of military rule stabilizing the internal situation probably forestalled a Soviet invasion. Though the military is carrying out many of the policies the Soviets desire, they still have some latitude that would not exist if the Soviets invaded. The military takeover in Poland helped to forestall total Soviet control and save Poland from the experience of Czechoslovakia in 1968.

Overall, the WTO members were given a neutral value concerning the advisory factor. In-country advisors were not needed to operate equipment, and educational/cultural exchanges among the military elite has not supplemented Soviet ideals for nationalistic feelings.

H. ALTERNATE SOURCES

As Table V demonstrates, there are few suppliers outside the Soviet Union selling arms to the WTO. The only source

TABLE V

NON-SOVIET ARMAMENT IMPORTS TO THE WTO; 1970-1982

RECIPIENT	SUPPLIER	ITEM	YEAR	COMMENTS
Bulgaria	Czechoslovakia	L-39 Jet Trainer	1972	1972-L-39 awarded into contract for standardized jet trainer with the exception of Poland
GDR	Czechoslovakia	L+39 Jet Trainer	1972	
	Czechoslovakia	ZLIN 43 Light A/C	1976	Single engine; propellor driven light aircraft: 1976 Delivery yr.
Hungary	Czechoslovakia	L-39	1972	
Poland	Czechoslovakia	MT-55	1975	Bridge laying vehicle
Rumania	UK	BN-2 Utility A/C	1969	Licensed Prod; Still being produced
	France	SA 319 Utility Helo	1971	Assembled in Romania
	Czechoslovakia	L-39 Jet	1972	
	China	Shanghai Class Patrol Boat	1973	10 either transferred from China or licensed production in Romania
	France	SA-330 Puma Medium Trans Helo	1974	Licensed Production
	UK	BAC-111 Transport A/C	1978	Licensed Production

Source: SIPRI Yearbooks 1971-1982

Notes: The 1977 SIPRI Yearbook shows Czechoslovakia transferring BMP-76s, T62s, and ZSU-23-4s to Poland and Bulgaria. Prior listings show said equipment being transferred from the Soviet Union. Since the 1977 listing was not repeated in any other yearbook, or in any other recipient case, the report is believed to be in error and was excluded from Table V.

(excluding the Soviet Union) supplying Bulgaria, the GDR, Hungary and Poland is Czechoslovakia. The items supplied are primarily support equipment with limited military use. Both Poland and Czechoslovakia have licensed production of some Soviet armoured equipment, this equipment is probably being transferred within the Soviet Bloc but is not listed due to tracing problems. Romania has imported equipment from Czechoslovakia, UK, France, and China. Though Romania is going outside the WTO for equipment, the items are limited in number and primarily support in nature. The 1982-1983 Military Balance shows the Romanian military as being armed predominantly with Soviet equipment [Ref. 22]. Since Romania at least demonstrated a connection with outside suppliers, she was given a "+" value on Table I while the rest of the WTO was given a "++" value.

I. FINANCIAL ABILITIES

The ability of Eastern Europe to attract alternate sources is severely limited by their constrained financial capabilities. The growing hard currency debt requires Eastern Europe to restrict the flow of Western imports. Table VI is an estimate of Eastern Europe's hard currency debt. Joan Zoeter demonstrates that in response to the rising debt, Eastern Europe has been attempting to increase exports to non-communist countries while restricting non-communist imports. Zoeter states though:

> The East Europeans will, however, be hard pressed to curb their imports from the non-communist countries.

TABLE VI

EASTERN EUROPE: ESTIMATED NET HARD CURRENCY DEBT TO THE WEST

(In millions U.S. dollars, 1979)

	1971	1976	1979
Bulgaria	723	2,756	3,730
Czechoslovakia	160	1,434	3,070
GDR	1,205	5,047	8,440
Hungary	848	2,852	7,320
Poland	764	10,680	20,000
Romania	1,227	2,528	6,700

Source: Joan Parport Zoeter, "Eastern Europe: the Hard Currency Debt," Joint Economic Commission, East European Economic Assessment, Part 2, 1981. Derived from Chart, p. 720.

> Because deliveries of Soviet energy are expected to level off and Soviet exports of other industrial materials at best will grow slowly, Eastern Europe will require increasing amounts of Western oil and other materials... The outlook for increasing exports is dim as Western demand will remain sluggish and protectionism strong. [Ref. 23]

With the hard currency debt problem, the economies of Eastern Europe cannot afford to import Western arms. The arms would only exascerbate the hard currency debt problem without providing any increased production capability as a return on the investment.

Since the East European countries are restricted financially from purchasing non-communist arms then they are

economically dependent upon the Soviet Union as their major supplier. The question of who shoulders the financial burden of arms in Eastern Europe will be discussed in Chapter III. The primary point for this section is that Eastern Europe cannot attract alternate sources for arms with economic compensation. In Table I, Eastern Europe was shown to be highly dependent upon the USSR for the financial capability factor.

J. THREAT

Threat evaluation relates to the recipients need for arms. If a recipient is involved in a hot war, his need for arms and therefore dependence on his supplier is greater than if he was at peace. Threat evaluation within Eastern Europe is complicated by the political intricacies of communist control. The actors are not clearly differentiated, whose security is in question, the communist party, the nation, or the collective region? Who is threatening the security, Soviet hegemony, Western counter-revolution, or European revanchism? Though these are important questions, the scope of this study necessitates a narrower field of view. Therefore, the study of the threat focused on the security objectives of the WTO states relative to the governments in power.

The obvious threat to the Warsaw Pact nations is from NATO, but do the individual members actually consider an overt invasion by NATO as a coalition realistic? Peter Bender

maintains that the WTO members do not believe there is a high probability of NATO invasion but do have security concerns. In Bender's view, the GDR's primary security concern is fear of consolidation with the FRG. As the FRG gains in power in the West, she may be able to isolate the GDR from Russian protection and unify Germany. Therefore, in Bender's view, GDR policies are based on reinforcing the ties between herself and the Soviet Union while attempting to legitimize her existence as an independent state [Ref. 24]. Robert Dean supports Bender's view stating:

> In the event of a central war, it must be a fundamental strategic objective of the East German Communist leadership to preclude any chance for a separate peace between the USSR and the Western Powers at the expense of the GDR, or any chance that the course of the war could undermine or weaken the Soviet political commitment to the East German states. The NPA's integration into the Warsaw Pact and in particular its interdependent relationship with the GSFG therefore serve a very basic purpose for the GDR leadership. [Ref. 25]

Dean goes on to show that the GDR leadership feels that the political risk of a war limited to East Germany is so great, that they stress that the WTO must retain military superiority to deter Western aggression [Ref. 26].

The East German leadership still fears West Germany and for this reason has always supported a strong defensive posture. In 1979 Erich Honecker in response to the proposed deployment of cruise and Pershing II missiles in Europe, "likened the West Germans and other NATO members to Hitler and Goebels and said the East Germans and Russians were strengthening the defense capabilities of our countries

to stop the aggressiveness of West German imperialism" [Ref. 27]. The statement is aimed directly at the FRG vice a general condemnation of NATO. The East Germans have always supported a strong WTO and have backed the Soviet Union in the call for increased defense spending among the WTO members. As an influence factor on Table I, the GDR threat value was rated highly in favor of the USSR.

The threat level in Poland and Czechoslovakia is lower than the GDR and based more on ideological feelings rather than reasonable national security imperatives. A. Ross Johnson demonstrates that the heart of Polish military doctrine rests on the "Proposition that national defense is illusory for a small communist state and that only the Soviet military coalition--the Warsaw Pact--can provide military security" [Ref. 28]. Commensurate with the belief in the WTO, Polish doctrine rests on two assumptions. First, if a general war starts it will escalate, as a second echelon area Poland will be hit by NATO nuclear weapons. Second, the Warsaw Pack must maintain military superiority to ensure "that a war will not be fought on Pact territory" [Ref. 29].

Current Czechoslovakian doctrine like Poland rests on the Socialist coalition concept. The restructuring of the Czechoslovakian military after the 1968 intervention by the Soviet Union removed any thoughts of military doctrines based on national imperatives. Alexander Alexiev states:

> This principle (collective defense of the socialist community) explicitly predetermines Czechoslovakia's alliance with the Soviet Union and membership in the Warsaw Pact. According to it, the international character of socialist defense implies international obligations on the part of all the socialist countries. The Czechoslovak defense system is an organic part of the Warsaw Pact defense system. [Ref. 30]

The threat is the struggle against capitalist forces and Czechoslovakia as a member of the socialist coalition must do her part to defend the socialist commonwealth.

In both the Polish and Czechoslovakian cases, their position as the main battleground raises the threat level. If war should break out between the Soviet Union and NATO, Poland and Czechoslovakia will either lay across NATO invasion routes or Soviet logistics lines. Coupled with this, the communist regimes of Poland and Czechoslovakia could not hope to maintain power without Soviet support. The military power of the Bloc both deters external intervention which might lead to a general war and prevents counter-revolutionary elements from replacing the current regimes. In the case of Poland and Czechoslovakia, threat evaluation was given a "+" value.

The primary difference between the threat level for Poland and Czechoslovakia, and Bulgaria and Romania is the importance of the Norther tier over the Southern tier. Hungary has no strong NATO countries adjacent and though Bulgaria borders Greece and Turkey the geography is not conducive to large scale military operations. Therefore, the threat was given a neutral value in both cases.

Romania is the one real outlier in the group since her defense posture is based upon national imperatives and not defense of the socialist commonwealth. Causescu defines Romanian defense interests in these terms:

> Given the country's geographic position, the equipment and training of the army should be based on the concept of defensive war.... As you see, I do not speak of strategic objectives, since we do not intend to go outside our frontiers.... We have no other strategy than to make sure that Romanian land does not fall prey to imperialist aggression, to a policy of strength. [Ref. 31]

The doctrine is one of partisan warfare where a large percentage of the population could be quickly mobilized in defense of the country. Alex Alexiev maintains Romania makes little attempt disguising the identity of the probable aggressor. Quoting Romanian sources Alexiev describes the aggressor in the following terms:

> possess gigantic military forces and technological superiority, as well as nuclear weapons, which however, he will not use because of the negative propaganda effect and because he will expect to accomplish his objectives by conventional means. The type of war the Romanians anticipate is a blitzkrieg involving airborne assaults and rapid penetration by armored troops from several directions. The aggressor's war objective is seen, in an apparent allusion to the Czech precedent, as quickly seizing the major political centers of the country, installing a puppet regime, and presenting the world with a fait accompli. Throughout the aggression, the enemy, whose war motivation is said to be strictly political, will also engage in a cunning propaganda compaign in an attempt to mislead world opinion and sow ideological confusion among the defenders of the country. [Ref. 32]

Clearly the probable aggressor is the Soviet Union and, being unable to match Soviet military power, Romania has developed a partisan warfare approach to defend her

national security. A partisan warfare doctrine is seen primarily as a deterrent. As Jiri Valenta points out, the ability to mount national resistance raises the cost of intervention to the Soviet Union. The decision by the Soviets to intervene militarily may be withheld while other options are explored [Ref. 33]. Romania does perceive a threat but since the threat is the Soviet Union, the threat factor in Table I is valued in favor of the recipient.

K. INDIGENOUS PRODUCTION

> Cooperation in the military-technical sphere has assumed a large role in the system of internal cooperation among the fraternal armies. Thanks to this, national troop contingents are today equipped mainly with unified modern models of arms and combat materiel. Apart from the Soviet Union, new models of combat materiel are also being produced, with regard to its standardization and unification, by industry in a number of other socialist countries. The Polish defense industry, created with great assistance from the USSR is also working efficiently within the framework of the socialist division of labor. [Ref. 34]

This statement by Polish General Antos illustrates the communist line on the collective nature of the WTO. The socialist division of labor efficiently operating in the defense field with each WTO member helping to provide standardized arms for the fraternal armies. Socialist internationalism overcoming nationalist tendencies and allowing cooperation among the fraternal countries. There is an underlying current within the statement pointing to national troop contingents and arms industry in other socialist countries as a sign of independence. The implication being that each country has national defense means, and

the sovereignty that entails, they then voluntarily participate in the coalition. Since each member contributes to the coalition's defense, each member is an equal partner in the socialist commonwealth.

The standardization of arms in the Warsaw Pact and the fact that these arms are predominantly Soviet is clear. The review of any Military Balance shows the vast majority of WTO line items are Soviet designed. What is not clear is the extent of the military industries and their contribution within the socialist division of labor. Daniel Papp argues that, though Poland and Czechoslovakia supply some of their own military equipment, and Romania is collaborating with Yugoslavia to produce military aircraft, these efforts are dwarfed by the size of Soviet military assistance to the WTO [Ref. 35]. Michael Checinski on the other hand argues that Poland's military industrial complex is a primary contributor to her current economic problems. Checinski maintains that the Soviets use Eastern Europe (primarily Poland and Czechoslovakia) as a parts manufacturer for older equipment. He notes that the Soviets only pass the license to Eastern Europe after Soviet manufacturers have begun production on the next generation. Checinski shows Polish production of the T-54/55 tank was begun as the Soviets moved to the T-62/T-72 tank and T-72 tank production was initiated in Poland as the Soviets began tooling up for the T-80. In Checinski's view the Soviets are just insuring a production capability exists to service their older generation equipment. Secondly,

Checinski argues that rather than specialization, the Soviets inspire competition between the two major non-Soviet WTO arms producers. Both Poland and Czechoslovakia produce jet trainers, jet strike trainers, armored personnel carriers, and main battle tanks. Neither of the two countries produce modernized arms that can compete with the Soviet arms industry [Ref. 36].

Table VII is a breakout of indigenous and licensed production by WTO members. The table can be broken down into three categories:

1. Non-producers: Bulgaria, East Germany, Hungary
2. Minor producers: Romania
3. Major producers (relative to the other non-Soviet WTO members): Poland and Czechoslovakia.

The non-producers have no real indigenous production capability and therefore are highly dependent upon the USSR for equipment. In the case of the GDR, the majority of Germany's military-industrial capability is located in areas controlled by the FRG. Though Germany is highly active with the Soviet Union in the fields of research and development, and coastal ship production, she does not produce any other major weapons systems. Bulgaria by all indications is limited to small arms production. Hungary, though it had a developing aircraft industry prior to World War II, now only produces scout cars and small arms. Jane's All the World's Aircraft 1964-1965, states that German armies while evacuating Hungary during WWII dismantled and

TABLE VII

NON-SOVIET ARMS PRODUCTION (MAJOR SYSTEMS) 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Bulgaria	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Czechoslovakia	L-29 JT OT-64[2] BMP-76[3] JPZG13 LT OT-62[3]	L-29 L-39 JT OT-64 OT-62	L-29 L-39 OT-64 OT-62	L-29 L-39 OT-64 OT-62 T-62[3]	L-29 L-39 OT-64 OT-62 T-62 L-39Z ST	L-39 OT-64 OT-62 T-62 L-39Z	L-39 OT-64 OT-62 T-62 L-39Z	L-39 OT-64 OT-62 T-62 L-39Z	L-39 OT-64 T-62 L-39Z	L-39 OT-64 T-72[3] L-39Z
GDR	H1A Patrol Boat KONDOR Mine sweeper	KONDOR II MS	KONDOR II MS	KONDOR II MS	KONDOR II MS FROESCH LST LIBELLE PB	KONDOR II MS FROESCH LST LIBELLE PB	KONDOR II MS FROESCH LST LIBELLE PB	KONDOR II MS FROESCH LST LIBELLE PB Mi-8[2] AN-2[2] KA-26[2]	Mi-8 Ka-26 AN-2	Mi-8 Ka-26 AN-2
Hungary	FUG-70	FUG-70	FUG-70 OT-64[3]	FUG-70 OT-64[3]	FUG-70	FUG-70	FUG-70	FUG-70	FUG-70	FUG-70
Poland	TS-11 JT/ST AN-2 Pa Mi-2 UH OT-64[2] WISLA PB POLNOCNY AS	TS-11 ON-2[3] Mi-2[3] OT-64 WISLA POLNOCNY	TS-11 ISKRA 100 ST AN-2 Mi-2 OT-64 WISLA POLNOCNY	TS-11 ISKRA 100 AN-2 Mi-2 OT-64 T-62 WISLA	TS-11 ISKRA 100 AN-2 Mi-2 OT-64 T-62 WISLA	TS-11 ISKRA 100 AN-2 Mi-2 OT-64 T-62 WISLA	TS-11 ISKRA 100 AN-2 Mi-2 OT-64 T-62 WISLA	TS-11 ISKRA 100 AN-2 AN-28[3] TA Mi-2 OT-64 T-62 WISLA	TS-11 ISKRA 100 AN-2 AN-28 Mi-2 OT-64 T-62 WISLA	AN-2 AN-28 Mi-2 OT-64 T-72[3]
Romania	TAB-70 BN-2 Va SA-319 UH	TAB-72 APC BN-2[3] SA 319[3]	TAB-72 BN-2 SA-319 SHANGHAI PB	TAB-72 BN-2 SA-319 SA-330 VH[3]	TAB-72 BN-2 SA-319 SA-330	TAB-72 BN-2 SA-319 SA-330	TAB-72 BN-2 SA-319 SA-330 ORAO JF[2]	TAB-72 BN-2 SA-319 SA-330 ORAO BAC-111 TA	M-77 BT TAB-72 BN-2 SA-319 SA 330 ORAO BAC-111[3]	M-77 TAB-72 BN-2 SA-319 SA-330 ORAO BAC-111

APC - armored personnel carrier
BT - battle tank
JF - jet fighter
JT - jet trainer
LT - light tank
LST - landing ship tank
MS - minesweeper
PA - propellor aircraft
PB - patrol boat
ST - strike trainer
TA - transport aircraft
UA - utility aircraft
UH - utility helicopter

NOTES:

1. All equipment of indigenous design and production unless indicated
2. Co-production
3. License

Sources: SIPRI Yearbook: years 1969 to 1982; Military Balance: years 1971-1982: IISS, London; Defense and Foreign Affairs Handbook; years 1978 to 1980. Copley and Associates, SA. Washington, D.C.

removed the industries. After the war, the WTO hindered any resurgence of Hungarian aircraft industry [Ref. 37].

Romania is in its own special category for two primary reasons. First, Romanian production capabilities are limited but growing, and second, it is the only WTO member to develop military licensed production connections outside the bloc. Alex Alexiev states that Romania is attempting to develop an arms production capability to gain a degree of self-reliance and move away from Soviet arms dependence. Alexis notes Romania is following a two track system in her arms development. The first track involves indigenous production of low technology weapons and, according to Alexis, the Romanians have been fairly successful. The second track involves gaining high technology experience through the use of license production. The license production of French helicopters and the joint ORAO fighter project with Yugoslavia demonstrates some successes [Ref. 38]. The Romanians have also demonstrated the capability of modifying and upgrading old Soviet equipment. In 1978 the Romanians introduced the M-77, a modified T-55 medium tank [Ref. 39]. The Romanians are developing their armaments industry and the success in the low technology area is directly beneficial to their partisan warfare doctrine but they are still dependent on imports for a considerable share of their equipment and sub-components. The indigenous production capability was not determined to be self-sufficient enough to rate it any higher than a "+" on Table I.

Disregarding the Soviet Union, Poland and Czechoslovakia are the primary weapons producers in the WTO. Viewing Table VII, the similarities in production discussed by Checenski are apparent. The Czech L-29, L-39, and L-39Z series of aircraft are comparable to the Polish TS-11, iskra 100 and iskra 200 series. The Czech L-29 was the standardized jet trainer within the WTO. In 1972 the WTO standardized jet trainer to replace the L-29 was chosen; the Czech L-39 [Ref. 40]. The Polish TS-11 series was developed in the same time frame and one can suppose that it was after the same market as the L-39. In fact, Czechoslovakia had a contract to supply 100 L-39s and 20 L-29s to India. The contract was switched in 1975 to Poland and fulfilled with the TS-11 series [Ref. 41]. The contract switch may have been a means of placating Poland for not receiving the WTO contract, or Czechoslovakia may have had problems fulfilling both contracts simultaneously and the smaller contract was then given to the Polish manufacturers. Either way it demonstrates that the two aircraft series are fairly comparable. One side note on the awarding of the WTO contract, the Polish trainer is powered by a Polish manufactured engine, the L-39 has a Soviet built engine [Ref. 42].

In other areas of production shown in Table VII Polish and Czech military armaments are similar. Co-production or licensed production run concurrently on the OT-62, T-62, and T-72. Poland outproduces Czechoslovakia in small naval craft but considering Czechoslovakia is landlocked that production

edge is understandable. The AN-2 and Mi-2 are vintage early 1960s utility aircraft and have limited military value. The AN-28 is vintage 1969 and is just a two-engine propellor driven plane and, like the AN-2, is only a utility aircraft. Outside naval production, the Mi-2, AN-2 and AN-28, the Polish and Czechoslovakian armaments industries are fairly redundant.

Both Poland and Czechoslovakia were rated "+" in Table I for indigenous production. The rating was given more for reasons of capability than actual production. License production of actual combat aircraft (part of MiG series) was stopped in Poland in 1959 and in Czechoslovakia in the 1960s. Both countries have demonstrated that their aircraft industry is capable of producing modern combat aircraft (even if just licensed production of Soviet aircraft) yet do not, they rely on the Soviet Union for all modern combat aircraft. In other equipment areas the story is basically the same, reliance on the Soviet union to supply the modern arms while indigenous production provides for internal needs of second rate equipment.

L. IDEOLOGY

Vernon Aspaturian states Soviet ideology functions "as a system of knowledge and as an analytical prism, it reflects an image of the existing social order and the distinctive analytical instruments (dialectical laws, and categories like the class struggle, historical stages, and so on) for

its diagnosis and prognosis" [Ref. 43]. Ideology is not the driving force of Soviet decision making, but it is the window through which they view the world to make decisions. If the recipient defines its interests in terms of the suppliers interests then there must be a shared value system or ideology between the two. John C. Campbell, not an advocate of ideology being a Soviet imperative, stated that the lesson the Soviets learned over their expulsion from Egypt was the importance of ideology. A supplier/recipient relationship that is based solely on a quid pro quo is temporary in nature. Ideology provides permanence to the relationship with shared values and added influence through interparty associations [Ref. 44]. The purpose of this thesis is not to get bogged down in the intricacies of communist ideology but to study the arms transfer relationship of which ideology is a component. Therefore, the values assigned to Table I were reached by a simple formula. All the states in question are socialist and, as such, share a common ideology with the Soviet Union. Within the ideological framework, Romania demonstrates a significant deviation by openly maintaining national policies and objectives over socialist internationalism ideals. Therefore in the case of Romania, ideology was rated as slightly less in favor of the USSR relative to the rest of the WTO.

M. ANALYSIS

Reviewing Table I, a hierarchy theoretically can be established for the WTO member states. The GDR should be

the most dependent state and therefore the most influenced by the Soviet Union. The key elements are the strategic location, threat, ideology and lack of a military capability independent of Moscow (combination of elements of inventory capability, alternate sources, and indigenous production). The second tier consists of Czechoslovakia and Poland, both with a lower threat evaluation and a slightly higher independent military capability than the GDR. The third tier consists of Bulgaria and Hungary, the primary difference being strategic location. In reality the differences between the first three tiers are minimal and consequently any differentiation in influence patterns probably does not exist--or is at least too subtle to detect. The separation between the first three tiers as a block and the fourth tier, Romania, is much greater. The primary elements differentiating Romania from the rest of the WTO lie in the combination of strategic location, threat evaluation, ideology and independent military capability.

The inter-relationship between strategic location, threat evaluation, ideology and military capability makes it difficult to analytically separate the impact of the individual factors. The decreased value of the strategic location, relative to the other WTO members, allowed Romania a little greater latitude with the Soviet Union. Ceausescu could be a little less ideologically doctrinaire and begin to develop an independent military capability as long as he did not become a threat to the Soviet Union or attempt to

pull out of the WTO. The redefining of ideology with a national component and the establishment of a partisan warfare doctrine based on a nationalistic threat evaluation then increased Romania's political latitude. The cost of any Soviet intervention had been increased. This is not to say that the Soviet Union would never invade Romania, but that the cost versus gains ratio has raised the threshold and allowed limited Romanian defiance of Soviet hegemony in Eastern Europe.

The importance of independent military capabilities for Romanian deviation is underscored by Alex Alexiev in his study on Party-Military relations in Romania [Ref. 45]. Alexiev contends that Soviet political hegemony in East Europe produced important consequences for the national military establishments. First, by subordinating national security interests to collective defense of the socialist commonwealth, East European military establishments were denied their primary function for defense of the nation state. Second, since the Soviet Army was the primary arbiter of power, the East European military establishments held little political clout. The local parties maintained power through Soviet support vice developing a reliance on a national military. Third, the divergent interests of national and ideological imperatives worked to maintain the split between the local parties and the local military. Alexiev contrasts military and party imperatives in this manner:

	Military Desiderata	Party Desiderata
1.	nationalist values	- universalist values
2.	loyalty to national political factor	- loyalty to external political factor
3.	national military prerogative	- supranational military prerogative
4.	national military autonomy	- supranational military integration
5.	high domestic political input	- low domestic political input

[Ref. 46]

The desiderata for the Party and military are conflictual in nature. The party maintains power and the dominance of its desiderata through reliance on an external factor; the Soviet Union. In the case of Romania, Ceausescu redefined the parties desiderata more in line with national interests and consequently the military desiderata. The increased accommodation between the party and military decreased the political dependence upon the Soviet Union and allowed for greater Romanian deviation.

The degree of Romanian independence relative to the rest of the WTO as per Table I can be demonstrated in a review of statements on two separate Foreign Policy issues; the deployment of Pershing II and cruise missiles to Europe, and the shooting down of KAL flight 007. In both the disarmament talks and the KAL incident all WTO members, with the exception of Romania, supported the USSR.

1. Missile Deployment: Bulgaria

> The world is a witness to the fact that all substantial proposals on strengthening peace, peaceful coexistence,

and detente have been made so far by the Soviet Union and the rest of the countries of the socialist community.

Radically different is the approach of the imperialist countries. Under the dictate of the U.S. Administration, in the past several years the West has undertaken another step toward the road of confrontation and preparation of war. New systems of weapons have been created--neturon, binary, laser, and space. The old systems--nuclear missiles stationed on land, under sea, and in the air, and those with strategic or intermediate range as well as new types of planes, tanks, and other weapons--are being modernized.

The Reagan administration's decision to deploy the latest intermediate-range nuclear missiles on the territories of certain West European countries up to the end of 1983 is particularly dangerous for the cause of peace. These missiles are capable of striking targets deep in the territory of the Soviet Union in only a few minutes, not taking into consideration the territories of the European socialist countries, including Bulgaria. If this decision is realized, the balance of power existing now in Europe will thus be violated.

You, yourself, understand, comrades, that the Soviet Union and all the socialist countries cannot be indifferent in the face of nuclear death standing on the threshold of our own home. That is why the Soviet Government has so categorically stated that, in coordination with its allies, it will undertake appropriate measures which will also create, on the territories of the United States and of the countries where the U.S. missiles will be deployed, the same military threat which the United States is trying to create against the Soviet Union and its allies. All Warsaw Pact member-countries, are backing this stand of the Soviet Union. [Ref. 47]

2. Missile Deployment: The GDR

The Soviet Union has once again offered a far-reaching variant: to forego the deployment of all new medium-range missiles in Europe and to reduce to about one-third the already existing ones, approximately 300 units on each side. To Western charges that within the framework of these 300 units the USSR could have more missiles than NATO, the Soviet Union stated its willingness to keep only as many medium-range missiles as Great Britain and France, in which case both sides would also have the same number of medium-range nuclear-arms-carrying aircraft. When it was suggested that the

USSR would with the identical number of missiles have more warheads on their SS-20 missiles, it declared her willingness to negotiate about an identical number of carriers--missiles and aircraft--as well as of warheads.

Honesty, consistency, and flexibility characterized the attitude of the Soviet Union and the socialist community. Its position is based on the only possible principle: equality and equal security. If the United States and its NATO allies were prepared to negotiate on the same basis, then things would run differently in Geneva, then it would not take long to achieve agreement there. Instead, the United States resorts to evasion and equivocation to block the negotiations, to deploy new missiles at any price and thus gain military superiority over the socialist states. In his interview for PRAVDA Yuriy Andropov once again made impressively plain: The Soviet Union's flexibility has its limits. It and its allies will have to take corresponding countermeasures to preserve the balance of power at the regional, European, and global level, should the United States' position at the negotiations continue to remain destructive and biased, and the deployment of American Pershing and cruise missiles in Europe come about. [Ref. 48]

3. Missile Deployment: Hungary

Of the 'zero option' proposed by the U.S. he said: 'From what we know of this recommendation we conclude that the U.S. seeks unilateral advantages. She would like the Soviet Union to destroy her missiles, yet the U.S. is silent over France's and Britain's nuclear arms and apparently rules out the destruction of her own forward-based nuclear devices. The Warsaw Treaty states' response to this sham 'zero option' is a genuine 'zero option': the discussants should consider Europe's all mid-range nuclear devices, including the land and sea-based missiles and nuclear arms carrying aircraft.'

Evaluating Leonid Brezhnev's Bonn moratorium proposals, he said: 'Observance of the moratorium would improve the Geneva talks' climate and would help reach the lower level of armament on which the Soviet Union and the U.S. could agree in the Geneva talks.' He recalled the foreign ministers' latest stance on ultimately turning Europe entirely nuclear-free. 'That would be the real and sought-for 'zero option' for the European peoples. [Ref. 49]

4. Missile Deployment: Czechoslovakia

As regards the undoubtedly most burning problem of our epoch--halting the arms race, and disarmament--the

session of the Committee of Ministers of Foreign Affairs unanimously pointed to the greatest present threat: the NATO decision to produce neutron weapons, and the new plan for extensive strategic armament.

In this connection, we welcomed the new significant disarmament proposals the USSR put forward by Comrade Leonid Brezhnev at the Soviet-West German talks last week. We expressed great appreciation for this Soviet program aimed at limiting nuclear arms in Europe to the lowest possible level. We fully endorsed this program and noted that it is essential to literally unblock all disarmament talks that are now obstrcuted, and to do everything for them to become productive at all levels--starting with the SALT talks and the Vienna talks on reducing armed forces and armament in central Europe, down to the Geneva disarmament talks--and to show an upward tendency. We also paid great attention to questions connected with the preparation of the second special UN General Assembly session on disarmament, which is to be held next June.

Even the alleged peace project put forward by American President Reagan, which is to serve as a U.S. platform during the talks, by its onesidedness and clear unacceptability to the Soviet Union, does not arouse any credibility. That zero option is to be a zero one only as far as the Soviet Union is concerned, not to mention the fact that recent history has provided telling evidence of the American attitude to treaties. It was the American congress which, as is well known, failed to ratify the already signed SALT II treaty. [Ref. 50]

5. Missile Deployment: Poland

The Soviet-American negotiations on intermediate-range missiles were started on MOscow's initiative in NOvember 1981. Washington did not want these negotiations. It was set on deploying new missiles in accordance with the NATO December 1979 resolution to be able to conduct talks later from a position of strength and military superiority. As a result of pressure and demands voiced by a range of WEst European governments, the negotiations commenced earlier. Nevertheless, Washington applied blocking tactics. It presented the unfeasible concept of a so-called 'zero option,' and then the concept of a 'temporary solution,' aimed at the same thing, in other words, a unilateral missile disarmament by the USSR. [Ref. 51]

In all five cases the USSR policies are for peace, the U.S. deployment of missiles is a drive for military

superiority. The USSR has demonstrated increased flexibility in the disarmament talks while NATO and the U.S. has been intransigent. The Soviet disarmament proposals are discussed as significant and far-reaching while the U.S. proposal is described as a sham and one-sided. Contrast this against Romanian releases:

6. Missile Deployment: Romania

> The attainment of a balance between East and West should be done not by introducing new nuclear missiles and armaments but by substantially reducing existing ones. We believe that after such an agreement and cutbacks are attained, one should continue to act to completely eliminate medium-range and tactical missiles and all kinds of nuclear weapons in Europe in order to create a Europe free of any kind of nuclear armaments. [Ref. 52]

> The new peace action of Socialist Romania's president starts from the promise that, although the Soviet-American negotiations in Geneva have not made progress, there is still enough time for these negotiations to end successfully until the end of the year, and no effort should be spared to reach an agreement on the non-emplacement of further missiles, the withdrawal and destruction of those in place, which would naturally meet the interests and aspirations of all peoples, the Soviet and American peoples included, the general interests of peace and security, bearing positively on the world political climate as a whole.
>
> Romania suggests that, in case that an understanding on this question is not possible, then, at least, the nonemplacement of medium-range missiles in the territories of West Germany, of GDR, of Czechoslovakia and other states should be taken into consideration, as an intermediary measure until a final agreement is reached within the Soviet-American negotiations. [Ref. 53]

The primary objective is the removal or cutback of nuclear weapons within Europe. Rhetoric on the peaceful intentions of the USSR, or U.S., is excluded. Both superpowers are viewed in their role as nuclear actors of

sustaining the arms race, there are none of the accusations of a U.S. drive for military superiority made by the rest of the WTO members. Romanian security concerns and policy lie in the removal of all nuclear weapons regardless of the owner.

7. KAL 007 Incident: Bulgaria

> The fact is not denied, says the Bulgarian jurist, that having substantially diver ed from the international route, the airliner has flown for two hours over the territory of the Soviet Union. The actions of Soviet intercepters, undertaken in response to the violation, are in complete compliance with the norms of international law, which defends state sovereignty over air space. The airliner which has infringed the air space of the USSR, has been ordered through the well known signals to land. Its suspicious conduct however, is in contrast with all international regulations for flight--flying without aeronavigational lights, refusal to react to the Soviet air controllers and disobeying the signals for langing--these in themselves are sufficient to trigger warning shots. [Ref. 54]

> Therefore, without being choosy about its means, the White House purposefully organizes 'mistakes,' or directs terrorist actions, which serve the purpose of kindling the anti-Soviet hysteria. Special antihuman skill is needed in order to sow hatred. The South Korean airplane case proves that Washington has turned this sinister skill into a basic part of its state policy. In his well-known Hollywood style the President shed crocodile tears for the tragedy that had been planned by his special services. Afterwards, posing as a judge, he started dispensing judgement in the form of some sanctions against the USSR, aimed first of all towards increasing even further the differences in bilateral relations. On the one hand he demonstrated compassion, aimed at convincing the U.S. allies and the world public opinion of the nonexistent nobility of Reagan's policy. On the other, he tried to prove innocence and to avoid responsibility for the provocation. [Ref. 55]

8. KAL 007 Incident: Czechoslovakia

> [test] Prague [no date as received]--RUDE PRAVO said today that the transparent hysteria stirred by Washington in connection with the disappearance of the

South Korean plane and the [word indistinct] of people aboard is designed to foment a new anti-Soviet and anti-communist campaign.

While respecting all accessible facts, everyone must be surprised that a plane equipped with the most modern guidance apparatuses could 'by mistake' turn 500 kilometres away from its route for two hours and not react to any signals. Can this be explained otherwise than as a deliberate violation of international law in the interest of someone who is concerned not about 'humanism' but hazard? Whom such a hazard serves is quite clear and it can be also gathered from Washington's official reaction, RUDE PRAVE said. [Ref. 56]

9. KAL 007 Incident: GDR

[Text] Good evening. The truth will out, or put another way, the simple facts reported at yesterday's international press conference in Moscow revealed what the United States actually instigated on the night of 31 August to 1 September over Kamchatka and Sakhalin. These facts were carefully checked on the spot, undeterred by a wave of propaganda without precedent in the imperialist media. It dealt with the key issue: What was the purpose of the flight by the South Korean airliner, what were the inevitable conclusions to be drawn by the Soviet side about the course and behavior of the intruder? This was made quite clear.

For, why did the intruder deviate 500 km off course in spite of the most up-to-date navigation equipment and radio communications which, it was proved, were functioning? Why did the U.S. air safety control, which followed all the stages of the flight, not sound the alarm immediately? Why didn't the plane react to the attempts to establish contact, which went on for hours? Why did the intruder lost his way unerringly over militarily strategic regions? Why did it penetrate Soviet airspace together with another espionage plane, the RC-135, and fly so close to it that both blips merged on the radar screen? What was the purpose of all this? [Ref. 57]

Painting the Soviet Union as the 'incarnation of evil' is to indoctrinate them with the anticommunist crusade mentality. It is to divide the Soviet people and the other peace forces in the world. For in a climate of anti-Soviet hatred, attacks on socialism and on world peace can be more easily perpetrated. The history of imperialist aggressions is tied to a chain of intelligence provocations, from the SS campaign

against the Gleiwitz radio station as the signal for the attack on Poland and the unleashing of World War II, the 'Tonkin incident' to escalate the Vietnam War, to the latest CIA operation in the Far East. Those who controlled them will have no scruples about the cynical game with human lives since the nuclear first strike which they are preparing takes into account the destruction of the majority of mankind. One thing is certain: As in the Gleiwitz case and in the case of Tonkin, one day proof is going to emerge to show how the U.S. secret service wrote and realized the script of the latest provocation. [Ref. 58]

10. KAL 007 Incident: Hungary

[Text] Anxieties over last week's KAL incident are still continuing. The American side has been inciting the media in every imaginable way. They do it, in part, to direct the natural feelings of grief for the innocent victims against the Soviet Union and the socialist world. The other reason is that there is need to lay down a smokescreen in order to divert attention from those who had put to the gravest of risks with immeasurable cynicism the lives of 269 people only to get hold of military information that they have been unable to get for decades through other sources.

But no matter how efficient the diversionary campaign *might be*, all this does not hide the essential point: It was not the Soviet Union or one of its allies which penetrated several hundred miles into the U.S.' most sensitive strategic areas--one does not need too much imagination to assert what would be the reaction of the Western world media in such a case--but what happened was the opposite: A Boeing 747 equipped with the most advanced American technology and under the command of a pilot who was an American-trained high ranking officer penetrated into the area of the Soviet Union's nuclear missile system under the darkness of night, under the supervision of the American-organized communications system of the whole Far East, and under the authority of an allied state. [Ref. 59]

11. KAL 007 Incident: Poland

The essence of the incident is formed by its two basic features: brutal violation of USSR airspace by American intelligence services over areas that are particularly vital for the defense of the Soviet state. A civilian passenger aircraft was used for this purpose, against every principle of international coexistence and accompanied by a deliverate and cynical neglect

of the security and lives of its passengers. Let us add that the aircraft was not one of "theirs," because this adds particular flavor.

The USSR is a great power that has the right and ability to effectively defend its state interests. The organizers of the incident cannot have considered the very high probability that the dirty American game which has been played could end up this way.

American imperialists have played a game without risk, to use their own concept. If the game were to 'succeed,' they would obtain espionage information valuable for their military preparations. If not, they would gain a pretext to step up another anti-Soviet and anti-communist campaign. It has no influence on the recorded facts whether the Korean aircraft carried out the espionage action by itself or whether it took part in such action. [Ref. 60]

The explanations of the incident by all five states follow the Soviet line. The aircraft was over sovereign Soviet territory so they had the right to shoot it down. The KAL 747 was on a spy mission which was a direct provocation of the Soviet Union by the United States. The incident was staged by the U.S. to increase anti-Soviet feeling and legitimize U.S. militarization. The Romanian announcements are less inflammatory:

[Text] Bucharest AGERPRES 10/9/1983--As official fora and international news agencies reported, a most serious air incident took place in the Far East recently, involving a South Korean airliner carrying out a flight from New York to Seoul. In connection with this, a statement released by the Soviet agency TASS shows: "On the night from August 31 to September 1, a plane intruded deep into the Soviet Union's air space over the Okhotsk Sea and of the Island of Sakhalin.

The statement says that 'the intruder plane entered the air space over the Kamchatka Peninsula, in a region where the most important Soviet strategic facilities were located.' Next, the declaration shows: 'Since the plane-trespasser did not obey the order to proceed to a Soviet airfield and attempted to evade, an air defence

interceptor carried out the order of the command post to stop the flight.'

The U.S. Secretary of State, George Shultz, stated that 'the aircraft strayed into the Soviet airspace over the Kamchatka Peninsula, over the Sea of Okhotsk and over the Sakhalin Island,' during a press conference.

At the same time, in another declaration, the Soviet Government explained again how the incident occurred, and expressed regret over the death of innocent people and shared (Pagony) of their friends and relatives.

Such an incident--which resulted in so many casualties--is, undoubtedly, most regrettable and should make us beware. Such actions are a consequence of the particular tension reached in the international life, that feeds the distrust and suspicion among states, the war psychosis, and leads to represssive measures.

Moreover, this serious incident is used by certain Western circles to accuse and incriminate the USSR for the mounting tension in the international life. It is obvious that such actions contradict the interests of detente, of the avoidance of confrontations and the prerequisite to peacefully solve issues. They can bring about most serious problems in the international life, the deterioration of the interstate relations, the deepening of distrust, hindering the people's struggle for peace and security.

That is why conclusions should be drawn from the circumstances which led to this regrettable incident, and everything possible should be done for such situations to occur no more, to be impossible in the future. ANyhow, such a tragic event should not be used as a reason to increase the tension. On the contrary, most resolute action should be taken and greater efforts should be made for the strengthening of confidence and collaboration among states, for tangible disarmament measures, nuclear most of all, for the cessation of the course towards confrontation and war. [Ref. 61]

Within the Romanian statement there is little actual discussion of the specifics of the incident. They acknowledge the aircraft as intruding into sensitive Soviet air space and the subsequent termination of the flight but

directly tie the statement to Soviet reports. There is no clear accusation that the aircraft was on a spy mission or any attempt to place blame on the East or West. The incident is portrayed as further proof of the risks of increased tension between the superpowers and the need to reduce that tension. The Romanian statement is extremely low-key when compared to the other WTO member announcements.

N. CONCLUSION

Clearly Romania's relationship with the Soviet Union is vastly different than the Soviet relationship with the other WTO members. While the majority of WTO members have stayed close to the Soviet party line, Romanian policies within the WTO and the CMEA (Council for Mutual Economic Assistance) has demonstrated a high degree of independent initiative. Corresponding to the increased Romanian independence has been the movement away from Soviet security assistance and greater reliance on national means of defense. Conversely, the lack of a national means of resistance and the dependence upon Soviet military power by the other WTO members provides a major opportunity to exercise control by the Soviet Union.

Soviet policies are aimed at intensifying East European dependence upon the Soviet Union. In viewing the dynamic elements of the eleven factors, Soviet policies function to further integrate the East European defense establishments. Ideology defines the threat and legitimizes Soviet political leadership through socialist internationalism. The threat

is defined along ideological lines and security is a function of the collective nature of the socialist commonwealth. The ideological nature of the threat discludes the primary alternate sources and allows for Soviet pre-eminence in doctrine which determines armaments within the alliance. Socialist integration legitimizes Soviet hegemony over military production with specialization functioning to mold East European production capabilities to Soviet needs.

The future of Soviet security assistance to Eastern Europe will therefore revolve around Soviet control. Indigenous production will always be limited to support equipment, small arms, and semi-obsolete items. Ideology doctrine and training will emphasize collective security over national interests. The Soviet arms supplied will be modern enough to allow the WTO members to fulfill their role within the collective doctrine, but not at the expense of Soviet dominance. The equipment will be inferior to that received by Soviet forces and not of the type to allow large-scale independent action by any East European national military establishment.

III. MILITARY/STRATEGIC IMPERATIVES

A. RATIONALE

Henry Kissinger ascribes three traditional purposes for the banding together of a coalition:

1. discourage aggression by assembling superior power and to leave no doubt about the alignment of forces.
2. provide an obligation for assistance.
3. legitimize the assistance of foreign troops or intervention in a foreign country. [Ref. 62]

These traditional views on coalitions are also expounded by the Soviets as functions of the WTO. Soviet Colonel-General G. Sredin stated:

> For a quarter of a century now the Warsaw Treaty has been reliably serving the cause of peace and socialism. Having appeared due to causes external to world socialism, at the same time, it profoundly reflected the inherent nature of the socialist socio-economic formation and began to develop and function according to laws diametrically opposite to those of the imperialist military blocs.
>
> The socialist countries, signatories to the Warsaw Treaty, do not threaten anyone. The sole purpose of their uniting into a military alliance was to defend the gains of socialism, the freedom and independence of the peoples, to consolidate the cause of peace in Europe and in the whole world. Article 5 of the Treaty says that all defensive measures of the Warsaw Treaty member-states pursue the aim of safeguarding the peaceful labour of their peoples, guaranteeing the inviolability of their frontiers and territories and providing defences against possible aggression. Article 4 likewise testifies to the defensive Treaty Organization. It stipulates that in case of an armed attack in Europe on one or several Warsaw Treaty member-states by some country or goup of countries, each signatory to the Treaty, exercising the

> right to individual or collective self-defence in accordance with Article 51 of the United Nations Charter, shall render the state or states, subjected to such an attack, immediate assistance individually and, in agreement with the other Treaty member-states, with all means it deems necessary to employ, including the use of military force.
>
> Simultaneously with the founding of the Warsaw Treaty, its member-states established the Joint Armed Forces comprised of national contingents detailed, by agreement among the Treaty signatories, for conducting joint operations.
>
> Having founded the Warsaw Treaty Organization, its member-states immeasurably strengthened and consolidated the defence power of the world socialist system. The founding of the Warsaw Treaty Organization was a qualitatively new step in the establishment of a collective system to defend the socialist states. [Ref. 63]

The late Soviet General Sergei Shetemenko noted:

> On the basis of fraternal mutual assistance, measures are taken on strengthening the national and allied armed forces, collective measures are taken for the suppression of counter-revolutionary and aggressive action against socialist countries.
>
> Thus for example in 1968 the state of the socialist community provided fraternal assistance to the Czechoslovak people in defense of the Sovialist achievement against encroachment by internal counter-revolution and international reaction. [Ref. 64]

These statements demonstrate the nature of the WTO in the Soviet view, a defensive alliance that has maintained peace for a quarter of a century. The collective system "immeasurably strengthened and consolidated the defensive power of the World socialist system," inferring increased power which discouraged aggression. Article Four obligates the member states to assistance, "with all means it deems necessary to employ, including the use of military forces." Shtemenko's discussion primarily focuses on the internal

intervention role of the WTO; "collective measures" carried out for the "suppression" of counter-revolution. The fraternal assistance of arms legitimizing Soviet intervention to protect international socialism within the Soviet bloc. Kissinger's three traditional purposes for a coalition are thus apparent in Soviet justification for the WTO.

Kissinger also notes that "an alliance is effective, however, only to the extent that it reflects a common purpose and that it represents an accretion of strength to its members" [Ref. 65]. Traditionally, the common purpose to hold an alliance together was a common threat. Napoleon's threat to Europe providing the common purpose for the Grand Alliance, and Hitler's expansionism bonding the allies during World War II. In the case of the WTO, the establishment of Soviet style communist governments based upon an internationalized Soviet communism provide the common purpose. Vernon Aspaturian maintains:

> All of the Communist states in Eastern Europe came into being under various forms of Soviet sponsorship. They were all cast from the Soviet mold, and represented the first step in universalizing the Soviet system in one way or another. All have been beneficiaries of Soviet protection, as well as victims of Soviet domination. We might say that while the Communist regimes have been the beneficiaries of Soviet protection, the populations have been the victims of Soviet domination.
>
> The Communist states of Eastern Europe are, in effect, miniature alter egos of the Soviet Union, and when the Soviet leaders look at Eastern Europe they find contentment only if it reflects a reasonable facsimile of themselves. The integrity, viability, and even existence of the Soviet system depends upon the maintenance of the Communist regimes in Eastern Europe and thus, for psychological reasons alone, the overthrow of any Communist regime in Eastern Europe would constitute a threat to the Soviet system. I think it's important

> to bear in mind that the Soviet Union does not consider itself to be merely a state; it considers itself as a representative of a particular form of social and economic organization which has universal validity and application. [Ref. 66]

The regimes in Eastern Europe were cast in the Soviet mold and depend upon the Soviet Union. As miniature alter egos of the Soviet Union, they have common values and shared interest in the universal validity of Soviet style communism. These shared interests provide the common purpose to maintain a coalition against internal counter-revolution and external aggression by capitalist enemies. The defining of East European interests in terms of the Socialist commonwealth, and the Socialist commonwealth interests being defined in terms of Soviet national interests, provide for the maintenance of the common purpose. As long as the Soviet Union can maintain regimes in power which view Soviet communism in international terms vice parochial Soviet interests, the common purpose for the WTO will exist.

The military/strategic imperative behind Soviet arms transfers to WTO member states rests on the second part of Kissinger's statement, does the coalition and Soviet security assistance "represent an accretion of strength to its members." As discussed previously, the primary military benefit of Eastern Europe to the Soviet Union is the strategic access to forward deployed positions. These positions have an offensive and defensive component, but do not depend upon Soviet arms transfers as a quid pro quo for usage. The proximity of Soviet power and the existance of Soviet divisions

within the forward areas are the ultimate guarantor for the maintenance of strategic access. Justification for arms transfers based upon military rationales or collective security needs to demonstrate that the transfer of arms and subsequent increase in the recipients military power serves also to benefit the military requirements of the supplier state. This leads to two primary questions concerning the military rationales for Soviet arms transfers to the WTO. First, do the arms transfers increase East European military power, and second, can East European military power be translated into Soviet military power?

B. THE NATO VIEW

Western analysis of the WTO focuses primarily on the forward deployed Soviet forces in Eastern Europe. Seemingly, most western military analysis uses the terms Warsaw Pact forces and Soviet forces interchangeably. In 1979, General Zeiner Gundersen, Chairman of the Military Committee of NATO, commented, "It is clear that the Warsaw Pact armed forces are becoming, year by year, step by step, a more capable, more versatile, more flexible, better equipped, more offensively oriented instrument of Soviet policy" [Ref. 67]. In the ensuing explanation General Gundersen proceeded to list Pact improvements:

- increase in the number of SCUD missiles to Soviet Units in Eastern Europe
- the inclusion of advanced T-64 tanks in Soviet Units in Eastern Europe

- the upgrading of SAM capabilities of Soviet Units in Eastern Europe
- modernization of Soviet artillery units with the receipt of self-propelled guns in Eastern Europe
- the introduction of modern aircraft to Soviet East European aviation units.
- the inclusion in Soviet frontal aviation units of the HIP and HIND attack helicopters
- continued modernization of the Soviet bomber force
- increase in Soviet strategic airlift capabilities. [Ref. 68]

David Griffiths reporting on U.S. Air Force comments concerning improvements in Warsaw Pact aviation capabilities listed the following aircraft as the major concern: IL-76, SU-22, MIG-27, and the SU-24 [Ref. 69]. In 1977, a report filed after a fact finding tour by Senators Nunn and Bartlett contended that NATO's ability to face the Warsaw Pact was diminishing. The report pointed to the upgrading of Soviet ground forces and the "dramatic transformation" of Soviet tactical aviation as the prime factors [Ref. 70].

In Gundersen's statements, Griffith's report, and the Senators fact finding tour the same assumptions are manifest. The Warsaw Pact is increasing in military strength and as proof of this fact increases of Soviet military power in Eastern Europe are delineated. A recent NATO-Warsaw pact force comparison published by NATO underscores Western military views on the WTO [Ref. 71]. In a general comparison

of conventional land, sea and air forces, and overall nuclear forces, the publication lumps Soviet and non-Soviet forces together. Yet in specific comparisons of forces and their capabilities, the discussion is of Soviet military capabilities in Eastern Europe and not the collective WTO military capability. Within NATO planning the non-Soviet WTO forces seem to be a neutral factor and do not represent an accretion of Soviet military power.

C. WTO DOCTRINE

Any study of the significance or military value of arms transfers must be based on the military doctrine within which the arms will be employed. Regardless of how modern a piece of equipment may be, if it cannot fulfill a role in a country's military doctrine then it is of questionable value. A hypothetical sell of U.S. M-1 tanks to El Salvador and the Federal Republic of Germany would have two different outcomes. In the case of the Federal Republic, the tank's conform to current NATO doctrine and would accentuate West German military strength. The doctrine being based on highly mobile units in combat on the German plain against a highly mechanized enemy. The ability to absorb an attack, and then hold the aggressor force in bottleneck areas before they can break out across Europe is paramount to NATO defense. High technology items like the M-1 tank fit this type of doctrine and warfare. In El Salvador military doctrine is based upon counter-insurgency operations. An armoured car or helicopter

gunship would have ten times the value of an M-1 tank. Understanding the doctrine is critical to understanding the military significance of an arms transfer.

Military doctrine within the WTO can be separated into two schools: the Romanian and the Soviet Union. As discussed in the first section, the Romanian doctrine rests on the concept of partisan warfare. The major concern is not offensive operations external to Romanian territory but defensive operations by a heavily armed public within Romania's borders. Rather than traditional military defense, the policy rests on the deterrence value of a popularly supported partisan force. If the deterrence fails, then hopefully partisan harassment will be great enough to eventually cause the attacker to withdraw.

The second school, which is at least supported verbally and in policy by the GDR, Czechoslovakia, Hungary, Poland, and Bulgaria, revolves around Soviet doctrines concerning offensive operations, deep penetration and tactical use of nuclear weapons. As Chris Jones points out in his study, the military doctrines of the above five states are standardized and controlled by the Soviet Union [Ref. 72]. The doctrine rejects the partisan warfare of Romania and requires each member to integrate itself into a single functioning unit, the greater the defense capabilities of the coalition as a whole. Since the Soviet Union is the preeminent power in the coalition and has greater military resources to draw

from, she leads in the formulation of doctrine. Marshal Grechko stated:

> The working out of the questions of modern military theory is the result of the close cooperation of the scholars of the allied armed forces.
>
> The availability of the extremely rich military experience of the Soviet Armed Forces and of its first-class material technical base and of its well-trained military cadres--all this guarantees Soviet military scholars an avante guard role in the resolution of the problematic tasks of military science. [Ref. 73]

Socialist internationalism requires the bonding together of the Socialist states to protect the socialist commonwealth from capitalist forces. Socialist specialization of labor requires each member to integrate its national assets into the commonwealth for the greater good. Since the Soviet Union is the ideological leader and primary economic/military power within the commonwealth, she obviously is in the best position to guide the socialist commonwealth on its historical journey.

Chris Jones points to the Soviet preeminence over WTO doctrine and maintains that the doctrine is an instrument of Soviet control. By accepting a security policy based upon the socialist commonwealth, the members foresake a posture based upon national interests. Their defense posture is so integrated into the Warsaw Pact that the national military assets cannot function outside the WTO. The individual members are devoid of the means to defend themselves and therefore must submit to the will of Moscow [Ref. 74]. Though Jones may be correct, the question of importance for this

section concerns the success of the integration. The Soviets may have succeeded in negating the national defense capabilities of the WTO member states through a doctrine of collective security, but does this mean the corollary is also true; does the defense contributions of the WTO members realistically represent an accretion of power to the coalition and consequently to the Soviet Union?

Soviet military doctrine in clausewitzian style renders military force as a tool of politics and further maintains that the essence of this relationship does not change with new technology. The third edition of Soviet Military Strategy states:

> In his remarks on Clausewitz' book, On War, v. 1, Lenin stresses that politics is the reason, and war is only the tool, not the other way around. Consequently, it remains only to subordinate the military point of view tothe political. [Ref. 75]

In the same edition it is stated concerning Western views that "atomic weapons have introduced radical changes into the form of war and its relation to policits" the Soviets maintain:

> It is quite evident that such views are a consequence of a metaphysical and unscientific approach to such a social phenomenon as war, and are as a result of idealization of the new weapons. It is well known that the essence of war as a continuation of politics does not change with changing technology and armament. [Ref. 76]

Regardless of nuclear weapons, war and force are still a function of politics.

In his publication, "The Offensive," A.A. Sidorenko further outlines Soviet military strategy:

> The Leninist ideas of the decisiveness of the offensive in armed conflict find reflection in Soviet military doctrine which considers the offensive as the basic type

> of combat actions of troops. Only a decisive offensive conducted at high rates and to a great depth achieves the complete smashing of the enemy in short times and the seizure of important areas, objectives, and political and economic centers. [Ref. 77]

The key to warfare is seen as quick, decisive offensive action. Combined arms, including nuclear weapons, intensify the capabilities of the offensive to quickly defeat the enemy forces and seize the decisive objectives. Sidorenko states:

> The introduction of nuclear missiles into troop units and the improvement of present types and appearance of new types of conventional weapons and combat equipment have made fundamental changes in the character, methods, and forms of the attack.
>
> The goal of the attack--total defeat of the enemy in short periods of time and the seizure of important areas--now is achieved by the destruction of the main enemy groupings and his means of mass destruction, primarily nuclear weapons, and also by the powerful fire of other means, the swift attack of tank and motorized rifle troops to a great depth in coordination with aviation and airborne landings, and by their bold movement to the flanks and rear of the enemy. [Ref. 78]

Sidorenko goes to great effort to demonstrate that nuclear weapons are just one facet of the increased capabilities of the offensive. The nuclear weapons remove the enemy's nuclear capability and destroy main centers of enemy defense. This intern opens up the enemy defensive lines allowing for the conventional forces to exploit the military situation. Sidorenko states:

> At the present time, tank troops are the main shock force of the ground troops. Thanks to their high combat qualities, they are capable of exploiting the results of the employment of nuclear weapons and other means of destruction most effectively, overcoming the enemy's defense at a high rate, breaking through into his deep rear swiftly, advancing over any terrain including that

> contaminated with radioactive substances, and inflicting powerful blows on the enemy. Swiftly reaching the areas struck by nuclear bursts, the tank troops will complete the smashing of the opposing enemy forces, seize his vitally important objectives and territory, prevent the enemy's restoration of the combat efficiency of his troops, defeat the employment of his mobilization reserves, and thereby further the rapid attainment of the goals of the offensive. [Ref. 79]

> An important quality of aviation is its capability to discover independently and immediately destroy enemy means of nuclear attack. Along with the accomplishment of many fire missions, in the course of the offensive aviation will conduct aerial reconnaissance to a great depth, cover the trooos against enemy air strikes, support the landing and actions of airborne forces and the rapid maneuver of podrazdeleniye, deliver ammunition and material to the attacking troops, and accomplish other varied missions. [Ref. 80]

The combined conventional forces quickly and decisively defeat the enemy and reach their objectives as the nuclear forces negate enemy nuclear power. The essence of the conventional forces is high mobility, firepower, and deep penetration capabilities.

Soviet views on the political military relationship, the offensive as the decisive form of military action, the relevance of nuclear power, and the use of conventional force all interrelate to help determine armament decisions. Military force is not renounced by the Soviets but seen still as a continuation of politics. If military action is resorted to, then quick, deep-penetrating offensive action is the most decisive form of warfare. Seemingly NATO forces would have to be destroyed and Western Europe occupied prior to the war escalating into a general strategic nuclear exchange. Nuclear weapons within the European theater function

first to deter NATO use of nuclear weapons and second to destroy NATO nuclear capabilities prior to its use. J.J. Martin maintains:

> The Soviets believe that nuclear weapons have great military importance and that decisive military advantages can be gained by the side that uses them first. Even if a NATO-WP war begins conventionally, the Soviets believe that NATO would be forced to use nuclear weapons, that the Warsaw Pact must make every effort to preempt NATO's nuclear use, and that the Warsaw Pact must be prepared to win a nuclear war with NATO, in the sense of occupying Western Europe and recovery rapidly from the war. [Ref. 81]

In essence, deterrence and then preemption opens the way for the conventional forces to rapidly occupy Western Europe intact.

Soviet weapons development since the 1960's has followed Soviet doctrine. The Soviet ability to match or exceed U.S. nuclear power in the strategic, theater and tactical fields has given them control of the escalation ladder and improved the environment for their conventional forces. In conjunction with their increasing nuclear capability, the Soviets have also qualitatively improved upon their conventional forces. In a recent Defense Intelligence Agency report, Philip Petersen and Mayor John Hines support the view that Soviet doctrine is based upon quick, deep penetration conventional offensives backed by nuclear weapons. They state:

> In the Soviet view, the successful execution or a short conventional war requires a high-speed offensive operation characterized by deep penetration of NATO's defense in the first few days of the war. Critical military, political and economic objectives must be quickly seized or destroyed through a combination of massed fire strikes and exploitation maneuvers executed in close coordination with airborne and heliborne assault landings.

> The Soviets anticipate NATO escalation to nuclear use, and therefore plan to operate from a 'nuclear threatened' posture even during nonnuclear combat. In this way they hope to minimize the difficulty of transition to nuclear warfare. [Ref. 82]

In light of the doctrine, Petersen and Hines then discuss current Soviet arms modernization programs:

> Weapons modernization and changes in force structure evident in the Soviet air, ground, and missile forces in recent years are interrelated and clearly enhance Soviet capabilities to execute the complex, high-speed conventional operations which are being discussed with ever-increasing frequency by Soviet/Warsaw Pact military leaders. [Ref. 83]

In support of this statement Petersen and Hines point to specific Soviet arms programs and their effect. Concerning aviation assets they state:

> Until Soviet Frontal Aviation began to receive its current generation of aircraft, a Soviet air operation against NATO air and nuclear assets probably would have been ineffective. Soviet tactical aircraft in the 1960s were characterized by light bomb loads and short range. But Soviet units, and even some units of the Non-Soviet Warsaw Pact states, have been equipped with increasingly more capable and sophisticated aircraft. New fighters like the MiG-23/FLOGGER G and fighter-bombers like the MiG-27/FLOGGER D have reduced the degree to which the West has been able to count on technology as a force multiplier to offset Warsaw Pact numerical superiority. Even those NATO efforts to offset this superiority through technologically advanced weapon systems like the acquisition of the F-15 and F-16 in significant numbers, may be offset by new Soviet airframes under development.
>
> Along with the fighters and fighter-bombers of Frontal Aviation, an air operation would include bombers not withheld for intercontinental strikes or participation in other operations. While the Soviets have long had the Yak-28/BREWER, the Tu-16/BADGER, and the Tu-22-BLINDER, the acquisition of the Su-24/FENCER and Tu-22M/BACKFIRE has dramatically improved their capability to conduct deep-theater strikes. The BACKFIRE also contributes additional flexibility in that it can fly with continental theater assets or with the longer range bombers against either targets in an oceanic TVD or possibly against intercontinental targets. Thus, in terms of

> continental theater aviation organizational developments, the Soviets have increased their firepower, survivability, and flexibility with a modernization program running from FLOGGERs, FENCERs, and BACKFIREs to more advanced airframes, such as the SU-27/Flanker and MiG-29 Fulcrum. [Ref. 84]

They further discuss Soviet missile modernization:

> The Soviets have also begun to deploy a new family of more accurate theater missiles.[115] These new systems are said to incorporate improvements in reaction time, missile accuracy, and handling characteristics. Older FROG rockets are being replaced by the SS-21, the liquid-propelled SS-1c/SCUD B by the SS-23, and the SS-12/SCALEBOARD by the SS-22.[116] Until these weapons appeared, the air operation was threatened by the lack of assurance that theater missiles could be used successfully to support air and air defense operations.[117] Yet any Soviet Eurospecific military strategy which hoped to avoid nuclear escalation within a European theater of military operations required a "Eurostrategic" nuclear capability that could survive an initial surprise nuclear strike and still deliver a devastating retaliation. Compounding NATO targeting problems because of its mobility, the SS-20 mobile IRBM helps extract the Soviets from the 'use or lose' situation inherent in the fixed site of the SS-4 and SS-5 that formerly made any attempt to fight without nuclear weapons so risky. [Ref. 85]

Modernization of the ground forces follow the same trend. The T-72 tank quickly followed by the T-80, a tank outfitted for chemical, biological and nuclear warfare. Increased development of armoured personnel carriers, self-propelled guns, and helicopters, all fitting into a doctrine of mobility and deep penetration.

Modernization of Soviet forces has occurred across the board in conventional and nucelar forces, and has been taking place at an increasingly rapid pace since the 1960's. Clearly, the modernization process corresponds with Soviet military doctrine and represents an increase in Soviet

offensive capabilities. Since as previously discussed, Soviet doctrine is essentially the WTO doctrine, and the Soviet Union is the primary arms supplier, then the degree the Soviets help the WTO to modernize and function within the doctrin should be an indicator of the strength of the military/strategic rationale in Soviet arms transfers.

D. WTO AND SOVIET ARMS TRANSFERS

Prior to 1960, the East European armies were empty shells under Soviet control. Development and modernization did not begin until after Khrushchev's decision to reorganize the military. The reorganization heavily emphasized the newly created strategic rocket forces to the detriment of the traditional ground forces. The development of the East European armies was seen as a means of pacifying the supporters of Soviet conventional forces. By developing non-Soviet conventional assets, strong ground forces would still be in place defensively in Eastern Europe and Soviet resources would then be freed to develop the more important nuclear forces. In effect, Khrushchev began a policy of burden sharing within the WTO. Thomas Wolfe notes that in the early 1960's Soviet military policy in Eastern Europe shifted. Prior to 1960, the primary Soviet military concern in Eastern Europe was the establishment of forward air fields and a coordinated air defense system. After 1960, the Soviets began upgrading ground forces and ground support aircraft. The introduction of T-54/T-55 tanks, self propelled guns, MiG-21, and Su-7

fighter-bomber aircraft demonstrated the desire to provide an increased conventional capability for the East European Armies. Wolfe maintains that Khrushchev's motives were made up of both international and internal factors. Internationally, development of non-Soviet WTO armies demonstrated bloc solidarity and downplayed the concrete military signs of Soviet hegemony. Within the WTO, the further development and integration of the national armies into the Soviet defense system enhanced Soviet effort of political control and increased discipline by drawing the bloc together. Wolfe states that concerning internal politics, non-Soviet WTO military development was used as an added rationale to trim back Soviet ground force requirements. Wolfe maintains that in retrospect the East European forces were modernized but there was little effect on the cutting back of Soviet ground forces [Ref. 86].

Since the 1960's, non Soviet WTO military modernization has slowed and has not kept pace with their Soviet counterparts. Table VIII reflects the relative military balance of major components of the WTO members as of 1982. Strategic capabilities were not compared in the chart since the Soviet Union is the only WTO state to maintain strategic forces. Though the East Europeans maintain the SCUD missile which has nuclear capability, all reports indicate that the Soviets maintain the nuclear warheads. It is suspected that the East Europeans would only use the conventional warhead, the

TABLE VIII

1982 Warsaw Treaty Organization
Major Military Components

	TANKS	AIRCRAFT	SURFACE TO AIR	SURFACE TO SURFACE	NAVAL
Bulgaria	1,500 T54/155 50 T-62 60 T-72	148 MIG 17 80 MIG 21 20 MIG 23	SAM 2 SAM 3 SAM 4 SAM 6	36 FROG 30 SCUD	2 ROMEO SUBMARINE 2 RIGA FRIGATE ASSORTED CORVETTES AND PATROL CRAFT COASTAL
Czechoslovakia	3,400 T-54/55 62/72	30 MIG 15 331 MIG 21/U/RF MIG 23 80 SU-7 BM/U SU-20	SAM 2 SAM 3 SAM 4 SAM 6	40 FROG 27 SCUD	N/A
GDR	1,500 (another 1,600 in storage) T-54/55/62/72	35 MIG-17 324 MIG 21/F/MF PF/U MIG-23 SU-20	SAM 2 SAM 3 SAM 4 SAM 6	24 FROG 18 SCUD	2 ROSTOCK FRIGATES ASSORTED CORVETTES AND COASTED PATROL CRAFT
Hungary	3,000 T-54/55/62 60 T-72	120 MIG 21/U/F PF/BIS 20 MIG 23	SAM 2 SAM 3 SAM 6	24 FROG 12 SCUD	N/A
Poland	3,000 T-54/55/62	150 MIG 17 580 MIG 21/U 35 SU7/U 35 SU-20	SAM 2 SAM 3 SAM 4 SAM 6	51 FROG 36 SCUD	4 WHISKEY SUBMARINES 1 KOTLIN DESTROYER ASSORTED CORVETTE AND COASTAL PATROL CRAFT
Romania	1,600 T-54/55 SOME T-72 SOME M-77	70 MIG 17 MIG 21/F/PF/U 240 MIG 23	SAM 2 SAM 6	30 FROG 20 SCUD	ASSORTED CORVETTES AND COASTAL PATROL CRAFT
USSR (Types)	T-10 T-10M T-54/55/62 T-72 T-80 T-64D	MIG 21,23,25,27,29 SU-7,15,17,24,25,27 TU-16,22,22M,95	SAM 1,2,3,4,5,6,8,10,11,12,13	FRIG SCUD SS-21 SS-22 SS-23 SS-12	FULL BLUE WATER NAVY

SOURCES: 1. Military Balance 1982-1983, IISS.
2. SIPRI YEARBOOKS: 1976 to 1982.
3. Soviet Military Power, 2nd edition, U.S. Government Printing Office, Washington, D.C. 1983.

SCUD has a range of 100-170 miles which makes it a battle-field weapon and not strategic. The Soviet Union controls all nuclear weapons and strategic delivery systems.

In the tank category, though the East Europeans operate the T-72, the majority of their assets are the T-62 and older T-54/55. The T-64, which with the T-72 is considered the forerunner of the T-80, has never been transferred to the East Europeans [Ref. 87]. Table IX is a breakdown of Soviet tank development and East European transfer policy.

TABLE IX

SOVIET TANK DEVELOPMENT

Tank	Soviet Operational Date	WTO Receipt	Follow on Tank	Soviet Operational Date
T-62	1961	1969	T-64/T-72	T-64 late 1960's T-72 early 1970's
T-64	late 1960's	-	T-80	early 1980's
T-72	early 1970's	1979	T-80	early 1980's

Sources: SIPRI yearbooks: 1970-1982.

Defense Intelligence Report, "Warsaw Pact Ground Forces Equipment Handbook: Armored fighting vehicles," April 1980

The chart clearly supports Micahel Checkinski's allegation that the Soviets supply Europe with equipment a generation behind Soviet top of the line items [Ref. 88]. The T-62 was not transferred until the T-64 was in production and the T-72

was about to begin production. The T-72 is just beginning to show up in Eastern Europe in larger numbers while the Soviets were switching to the T-80. The T-80 is fully configured to operate in the chemical, biological, nuclear environment that Soviet doctrine prescribes.

Two points stand out under the aircraft heading in Table VIII. First, the lack of long range interdiction type aircraft in the non-Soviet WTO inventories. None of the East European members operate anything near the range/payload capabilities of the Backfire bomber. The aircraft operated all fit interceptor or direct ground attack roles with no capability to attack rear area targets. Second, as Table X demonstrates, the interceptor and ground attack aircraft operated are of limited capability when compared to the Soviet inventory. The mainstay of the East European interceptor force is the MiG-21, the Soviets are already developing the MiG-29 a full two generations beyond the MiG-21. In the ground attack role the East European mainstay is the SU-7BM with the SU-20 just recently being introduced. The SU-20 and the Soviet Air Force SU-17 are similar aircraft and direct descendents of the SU-7BM. The SU-20 is an export variant of the SU-17 with the primary differences being downgraded engines and avionics [Ref. 89]. So while the Soviets had developed the SU-17, MiG-27, SU-24, SU-19 and are developing the SU-25, the aircraft they decide to supply the WTO is a downgraded version of probably the least effective of the entire group.

TABLE X

SOVIET TACTICAL AIRCRAFT DEVELOPMENT

MILITARY	MISSION	...1965	1965-1970	1970-1975	1975-1980	1980...
WTO	Interceptor	MIG-21 - - -	MIG-21PF - - -	MIG-21MF - - -	MIG-21 BIS ↓ MIG-23 - - →	
Soviet (By Series Only)	Interceptor	MIG-21 - - → SU-9/11 - - →	SU-15 - - →	MIG-23 - - → MIG-25 - - →		→ MIG-29 → SU-27
WTO	Ground Attack	SU-7B(BM) - →				SU-20*
Soviet (By Series Only)	Ground Attack	SU-7B(BM) - - →		SU-17 - - → MIG-27- - → SU-24 - - → SU-19 - - →		→ SU-25

⟶ New design; follow on aircraft.

- - - - - -→ Variant of same design.

*The SU-20 is more than just a modification of the SU-7BM but not quite a total redesign. The SU-20 has upgraded avionics, swing wing and twice the load capability of the SU-7BM but basic fuselage design is the same. The SU-20 is an export version (with down graded avionics) of the SU-17 used by the Soviet air force.

Sources: (1) Military Balance; years 1965-1982, 1155.

(2) SIPRI, yearbooks; 1968-1982.

(3) Soviet Military Power, 2nd edition, U.S. Government Printing Office, Washington, D.C., 1983.

(4) Jane's, All the Worlds Aircraft, years 1965-1983, Jane's Publishing Co., London England.

(5) Soviet Air Power, Bill Sweetman, Bill Gunston, Salamander Books Limited, London, England, 1978.

The surface to air category seemingly follows the same trend as Soviet tank exports; as a new model is developed, the older generation is disseminated to the WTO. Table XI traces current Soviet SAM exports to the WTO. The 300 mile range SA-5 which has been exported to Syria, though operated by Soviet personnel, has never been released to the WTO. The short-range hand-held SA-7's and SA-9's were deleted from the table since they are a common missile and not a major item. Of the missiles exported to the WTO the SA-2 was the mainstay until the introduction of the SA-3's, 4's and 6's in 1977. As the table depicts the follow on missiles were

TABLE XI

SOVIET SURFACE TO AIR EXPORTS TO THE WTO

Missile	Soviet Operational Date	WTO Receipt	Follow on Missile	Soviet Operational Date
SA-2	1958	Middle 1960's	SA-10	early 1980's
SA-3	1961	1977	SA-11	1979
SA-4	1964	1977	SA-10	early 1980's
SA-6	1970	1977	SA-11	1979

Sources: SIPRI Yearbooks: 1970-1982

Military Balance: IISS, years 1965 to 1982.

within 2-4 years of entry into the Soviet inventory. In the case of the SA-3 and SA-4, a period 16 years and 13 years

respectively passed between the Soviet operational date and entry into the non-Soviet WTO forces.

In surface to surface missiles, the Soviets have never upgraded the Frog and Scud systems supplied in the 1960's. Though the Soviets have developed four follow on variants in the SS-12, SS-21, SS-22, and SS-23, the East Europeans have not acquired any of the new versions. The Soviet have exported the SS-21's to Syria but have reserved control of the missiles in Eastern Europe to themselves [Ref. 90].

In the naval category the Soviets maintain blue water capabilities while the other WTO members maintain coastal patrol fleets. The developing Soviet naval capability to project marine forces ashore and operate surface battle groups at sea is unmatched by any other WTO member.

E. ANALYSIS

Comparing the WTO/Soviet offensive doctrine with non-Soviet military hardware highlights a disparity between capabilities and doctrine. Within the WTO, the state that developed the doctrine and defined the security policy is the only state with the capabilities to carry out the doctrine. In the strategic and tactical nuclear weapons, long-range interdiction aircraft, survivable highly mobile ground forces, air superiority aircraft and ground attack aircraft the Soviets have modernized to meet doctrinal requirements. The East Europeans though have lagged behind in all areas which brings into question their role in the WTO.

Four broad factors may have an effect on East European modernization programs; reliability, economics, desirability and assimilation. The scope of this study is not adequate to fully cover one, let alone all four, of these topics but they still must be touched upon in viewing Soviet arms transfers to the WTO from a collective security perspective. Reliability primarily effects the supplier and concerns what arms he is willing to transfer. Economics, desirability and assimilation concern the recipient; what is desired? Can it be afforded? Can the state actually use and maintain the equipment?

In general terms, Soviet perceptions of the reliability of the WTO members does affect her arms transfer policy. Robert Dean points to the lack of Soviet support in the 1950's for the development of an independent East German military as a function of reliability. He states:

> Following the anti-regime demonstrations which shook the state in June 1953, initial Soviet sponsorship for the development of the GAR military appears to have been withdrawn. A small fleet of modern MiG-15's which was to serve as the core of the newly constituted East German Air Force was recalled, and other training organizational development in process war curtailed. Soviet restriction on GDR military development apparently continued well beyond the formal establishment of the NPS in 1956. Gradually, however, Soviet confidence in the East German Party leadership and in the political and social stability of the 'second German state' grew, and was evidently sufficient by the early 1960's to warrant full support of a separate GDR military establishment. [Ref. 91]

Czechoslovakia in 1968 further demonstrates that reliability is a factor. After the invasion, reductions in Czech force and equipment levels were offset by increases

in Soviet troops [Ref. 92]. Since the Czechoslovakian forces proved unreliable, the Soviets degraded the Czech military capabilities while still maintaining WTO capabilities with the addition of Soviet troops. Reliability and East European modernization is a difficult problem for the Soviets. As Dale Herspring and Ivan Volgyes point out in their study on East European political reliability, the Soviets are caught in a dilemma. The perceived instability of some ofthe regimes requires the Soviets to proceed with caution in their modernization efforts. WTO policies of integration and increased East European input into the WTO decision-making process will eventually increase the efficacy of the institution and reliability of the individual members. But, "a failure to supply modern weapons to these forces because of their limited reliability might have removed an important motivation for closer ties with Moscow on the part of East European military elites and in the end become a self-fulfilling prophecy" [Ref. 93]. Herspring and Volgyes maintain that though the Soviets have modernized East European forces, the failure to supply the latest equipment has created resentment.

Economically, the question arises concerning the ability of the small East European states to afford the armaments. Detente in the 1970's simultaneously decreased East-West tensions and opened Eastern Europe to Western trade. Trade with the West had a dual effect--first, an increase in hard currency balance of payments problems, and second, an influx of western technology and industry. The belief was that as

the industries were rebuilt with modernwestern technology the manufactured items would then be competitive in the international marketplace and the initial hard currency debt could be repaid. Internal economic structural problems, technology assimilation problems, and the huge increases in the cost of oil, all contributed to the demise of the East European economic policies and the resultant increase in the hard currency deficits discussed in Chapter II. As the economic problems increased, the ability to support a large military decreased. In 1979, Poland, following Romania's lead, froze their defense budget despite Soviet requests for budget increases [Ref. 94]. Though in the same period East Germany has moved to increase defense spending, it is doubtful considering the state of the WTO economics, that overall the East European states can realistically support a larger share of the defense burden [Ref. 95].

The acquisition of arms is not solely based upon the recipients ability to finance the purchase. If it deems necessary, the Soviet Union can subsidize the modernization of the East European forces. The question of Soviet subsidies to East Europe and the degree East Europe is a burden to the Soviet economy is a difficult question. As Michael Checinski maintains, the inter-locking relationship between the WTO economies through the CMEA have made it difficult to determine who benefits [Ref. 96]. The Soviets subsidize oil to Eastern Europe and buy East European equipment at inflated

prices. The Soviets also have a closed arms market in East Europe and inflate the cost of the arms to the WTO members [Ref. 97]. Overall, the Soviet Union does subsidize the East European economies. Jan Vanous and Michael Marrese place the subsidies in the neighborhood of 5.8 billion dollars for 1974-1978, rising to 10.4 billion in 1979, and 21.7 in 1980 [Ref. 98]. Considering Soviet subsidies and current East European economic problems, why purchase second rate equipment when state of the art is available? Though economics can explain some of the discrepencies between Soviet and WTO force levels and equipment, it cannot be the entire answer. Part of the rationale for weapons standardization, aside from the obvious military benefits, is the decrease in development and production costs. Regardless of the size of their defense budgets, the East European states are contributing to development and production costs and yet are not receiving any of the top of the line equipment.

The assimilation factor refers to the capability of a state to accept, use, and maintain high tech equipment. If their pilots can not fly World War II fighters, then there is little military rationale in supplying the country with MiG-29's. While assimilation may be a problem in Bulgaria, Hungary and Romania, there is no question that East Germany, Czechoslovakia and Poland could operate and maintain the most sophisticated of Soviet equipment. Czechoslovakia and Poland both have an aircraft industry and produce armored vehicles.

East Germany is in the forefront of the WTO in robotics, electronics miniturization, and nuclear engineering. East Germany has also operated in the third world instructing on Soviet equipment for the Soviet Union. Assimilation of high tech equipment is not a problem with Eastern Europe.

Under desirability, the East Europeans have demonstrated a desire to obtain top of the line equipment. In fact, Herspring and Volgyes report that "Moscow's failure to supply these armed forces with the latest weapons appears to have created resentment on the part of some of the Eastern European military elites" [Ref. 99]. A. Ross Johnson maintains that the Polish military has expressed dissatisfaction over the pace of modernization. In the 1960's, they were upset with the Soviets supplying Middle Eastern client states before Poland. In the 1970's, the dissatisfaction was with the state of the Polish economy and the decrease in defense expenditures [Ref. 100]. East German pronouncements on increased defense expenditures and warnings of West German militarization all indicate that there is a desire for increased military capability [Ref. 101].

F. CONCLUSION

Soviet arms transfers within the WTO are not meant to maximize the combat ability of the non Soviet WTO armies. The WTO armies can assimilate the weapons, economically they can better utilize their defense expenditures than current policies dictate, and they do have a desire to modernize their

equipment. The major holdback is the restrictions the Soviets place on what arms can be exported to the WTO. From the military perspective, Soviet arms transfers fit three roles. First, it gives the non-Soviet WTO armies the capability with standardized weapons to protect the lines of communication between the probable front lines and the Soviet Union. Questions of reliability focus on the use of WTO troops in offensive combat external to the nation or in the case of the Soviet Union losing the war. In a major offensive in Europe, the Soviets will be carrying out the majority of the combat. As long as they are winning, reliability among the WTO members should be high. The WTO armies under Soviet control would function on national territory protecting the vital lines of communication from both air and ground interdiction. Second, the WTO armies with Soviet assistance do form an effective defensive force and buffer against NATO invasion. In defense of national territory reliability should be high. The equipment maintained by the non-Soviet WTO military forces is sophisticated enough to represent an accretion of power to the Soviet military in a defensive role. Third, modernization helps accomplish the internal policeman role. The equipment is modernized enough to allow WTO forces to participate and therefore legitimize internal intervention. Soviet dominance of the national defenseorgans decreases the ability for national defense, while the integration and standardization policies increase the capabilities of the remaining WTO members to participate in any intervention.

Though the Soviets have not modernized the WTO armies to the degree possible, this does not mean that they do not invision the WTO as a traditional coalition or that the WTO members do not represent an accretion of power to the Soviet Union. Soviet integration and therefore modernization policies are based upon the desire to harness and maximize East European military capabilities but without losing sight of the reliability problem. Currently, the reliability of the WTO armies, or at least the ability of the Soviets to control the WTO armies in defensive operations, is high. The armies are modernized and allowed access to equipment that enhances their defensive capabilities. Offensively, the Soviets are manned at levels to carry out operations primarily on a unilateral basis. The primary contribution of the WTO in this case is strategic access to the forward areas. From the military perspective there will be little change in the future. The only occurrence that could possibly change the situation would be complete military integration into a supra-national defensive organization. The Soviets have periodically introduced this concept only to be rebuffed by the WTO members. As long as the military organizations are national in structure, Soviet questions concerning reliability will forestall any changes in arms transfers.

IV. ECONOMIC IMPERATIVES

A. RATIONALES

Geoffrey Kemp and Steven Miller associate five economic rationales for the transfer of arms [Ref. 102]. First, arms sales contribute to a favorable balance of payments. Second, arms sales help reduce unit cost and distribute research and development expenses. Third, military sales help stimulate commercial sales between supplier and recipient. Fourth, arms sales help reduce unemployment, and fifth, arms can be used as a barter item for resources. Though some of these five items are relevant to Soviet third world arms sales, they have only a limited relevancy to Soviet transfer within the WTO. The primary economic rationale for WTO transfer lies outside Kemp and Miller's five rationales and is a function of the unique structure of the Soviet political-economic-military entity. The development of the Soviet Union, defined by John Hardt, as a military-industrial complex has created a privileged class whose position is dependent upon a large military sector [Ref. 103]. Eastern Europe provides a demand for Soviet arms, justifiable on Soviet national security grounds, that legitimizes the large military-industrial sector and therefore the continued privileged status of its members. This is not meant to present a case of interest group politics in the mirror image of the United States but

to demonstrate the incorporated nature of the Soviet political-economic-military system.

B. THE FIVE RATIONALES

The use of arms sales to improve a trade deficit or as a means for acquiring hard currency is a motivator of Soviet arms sales to the third world but not within the WTO. Table XII demonstrates the relative importance of Soviet arms sales to the WTO and to less developed countries (LDC). Where arms sales consistently comprise only 8 percent of total Soviet exports to the WTO, arms transfer to the LDC's constitute a whopping one to two thirds of total exports. Except for the years 1971, 1972, and 1973, Soviet trade balances with the WTO have remained positive. The primary factor for Soviet trade surpluses with the WTO is the Soviet exportation of oil. The negative trade balances of the early seventies were offset by a readjustment of the price index system within the WTO. By adjusting oil prices closer to the world price levels the Soviets reestablished the trade surplus. As discussed earlier, the Soviets overall are seen as subsidizing Eastern Europe. Arms sales only increase the subsidy cost to the Soviets and therefore their effect on the trade balance is not an imperative of arms transfers. Considering Eastern Europe's current hard currency deficit and the fact that trade within the WTO is based on standard rubles, the acquisition of hard currency is also not a factor.

Unit cost reduction and the distribution of research and development expenses is a more difficult question to

TABLE XII

Soviet Trade: WTO and Less Developed Countries
1970-1979

	Soviet Arms Exports WTO	Soviet Total Exports WTO	Soviet Arms Exports LDCS	Soviet Total Export LDCS	Arms as a % of Total Exports to WTO	Arms as a % of TOTAL Exports to LDCs	Total Soviet Imports From WTO	Trade Balance Soviet-WTO
1970	744.3	6,758.4	891.3	2,039.7	11	43	6,633.7	124.7
1971	662.6	7,241.3	779.9	2,030.2	9	38	7,258.5	-17.2
1972	660.9	7,474.0	1,063.0	2,228.5	8	47	8,541.0	-1,067.0
1973	729.8	8,200.9	1,934.8	3,310.7	8	98	8,992.0	-791.1
1974	866.0	9,672.6	1,825.1	3,716.0	8	49	9,555.7	116.9
1975	1,099.5	13,184.7	1,847.5	3,806.2	8	48	12,568.5	616.2
1976	1,230.5	14,562.3	2,214.8	4,116.0	8	53	13,584.6	978.3
1977	1,418.3	16,962.3	3,737.5	6,009.3	8	62	15,390.8	1,571.5
1978	NA	18,828.3	(3,700.0)	6,362.6	-	58	18,639.9	188.4
1979	NA	20,609.1[b]	(3,700.0)	7,018.3	-	52	19,414.5	1,195.0

[1]All figures in millions; standard ruble

Source: Developed from data from Jan Vanous's study, "Soviet and Eastern European Foreign trade in the 1970's: a quantitive assessment." Joint Economic Committee; East European Economic Assessment, Part 2. U.S. Government Printing Office, Washington, D.C. 1981, pp. 688-691.

answer. Andrew Pierre maintains that Soviet armament industries are not subject to the economic pressures of the West, but partially because of their WTO market. He states:

> Nor are the lower unit production costs, attributable to exports, likely to be considered of significance. The number of weapons sent to the developing world, in relation to those produced for the armed forces of the Soviet Union and the Warsaw Pact, has not been large enough to have had a significant impact on production costs; until the mid 1960's many of these arms came from surplus stocks. Our knowledge of the inner workings of the Soviet 'military industrial complex' is quite limited, as it remains surrounded in secrecy. Yet it appears that the arms production industry is geared to a steady rate of production, and weapons systems do not have to have promising export potential to be developed because of the large demand for arms already existing within the Warsaw Pact. [Ref. 104]

In effect he feels the arming of the Soviet military and the Warsaw Pact forces keeps production constant and decreases unit cost.

Michael Checinski indirectly supports Pierre's contention that sales to Eastern Europe do decrease unit price and contribute to research and development costs. Checinski feels that though the Soviets do not supply the most sophisticated equipment to Eastern Europe, the equipment that is bought and the infrastructure developed is strictly for Soviet defense and not European national defense. According to Checinski the Soviets over-charge for their military equipment and in many cases require cut prices in European component equipment in exchange for arms. The defense budgets of the East European states are oriented to improving the Soviet defense network, and therefore release Soviet

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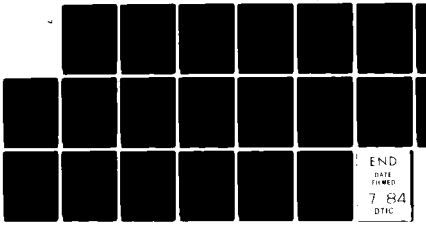

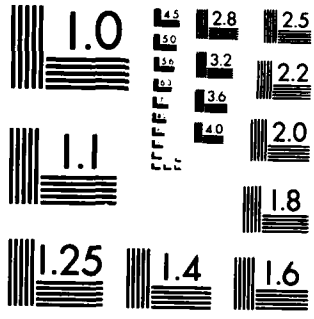

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

assets for continued research and development and production of sophisticated arms.

As demonstrated earlier, the Soviets do not transfer their most sophisticated arms to Eastern Europe. In the case of aircraft and surface to surface missiles, the gap between Soviet capabilities and the rest of the WTO is notably acute. This would indicate that sales to Eastern Europe do not contribute to decreasing Soviet research and development expenses or unit cost. It is in the new technologically advanced systems that the Soviets do not supply that R&D costs and unit production are the most critical. Yet, Pierre and Checinski have a point, sales to Eastern Europe do economically benefit Soviet defense development. In armor equipment, the sale of relatively obsolete equipment produces funds for production and R&D for further generations. The use of the national defense budget of Europe to build the infrastructure in airfields, pipelines, roads, and railroads releases Soviet resources. The development in Poland and Czechoslovakia of what Checinski refers to as an "obsolete reserve production capability" releases Soviet industrial capabilities to produce the more modernized systems [Ref. 105]. The East Europeans pick up the tail end of the WTO market and Soviet parts support while Soviet industry produces the new generation of military equipment. Though not in the traditional sense of joint development or decreases in unit cost, Soviet arms sale to Eastern Europe do indirectly function to defray the cost of Soviet arms development.

The linkage of arms sales and commercial sales is not a factor in Soviet arms transfer to Eastern Europe. The Council of Mutual Economic Assistance (CMEA) coordinates trade between memger states and all of the WTO members belong to the CMEA. As in the WTO, the Soviets have consistently advocated a policy of integration within the CMEA. Eastern Europe's dependence upon Soviet resources, the lack of goods competitive on the world market, and increasing trade deficits with the west, all contribute to further the integration process and stimulate intra-CMEA trade. Since the Soviets have a direct instrument in the CMEA, they do not need to rely on indirect linkages between military and commercial sales to spur trading.

The effects of unemployment also has little impact on arms sales to Eastern Europe. Andrew Pierre states, "In a state controlled economy like the Soviet Union's, with its shortage of skilled manpower, maintaining levels of employment is not a factor in exports, especially in the highly favored defense industry" [Ref. 106]. Ann Goodman and Geoffrey Scheifer in their study of the Soviet labor market support Pierre's contention. They state:

> The Soviet economy, constrained for many years--but especially recently, by sluggish growth, now must cope with a second problem, a sharp slowdown in annual increments to the population of working age. The prospect of a labor shortage is especially painful for Soviet planners, because up to now the share of labor's contribution to growth generally has been larger than in other developed economies, while the contribution of productivity has been smaller. Moscow counts on turning this situation around in the 1980's, relying more on productivity and less on numbers to spur economic growth. [Ref. 107]

The defense industry requires skilled workers to produce quality sophisticated armaments. The increasing shortage of skilled labor within the Soviet Union negates unemployment concerns as a factor in Soviet arms transfers.

A strong case supporting Soviet arms for resources relative to Eastern Europe does not exist. The Soviet Union is the major resource supplier to Eastern Europe. The resource trade is coordinated by the CMEA and is usually paid for in standard rubles or through joint investment projects. The exchange of arms for resources, other than in overall trade balance calculations, does not figure in CMEA calculation.

Of Kemp and Miller's five economic rationales for arms transfer, only sales to decrease unit cost and R&D expenses hold any validity for Eastern Europe. Even in this case, the sales contribute indirectly to defray Soviet defense expenses and do not overall have a direct impact on unit cost estimates. The five rationales do not take into consideration political-economic ties and benefits which produce an imperative for arms transfer. The imperative provided by the existence within the Soviet Union of a sector dependent upon defense and defense industries for political-economic power.

C. SOVIET MILITARY-INDUSTRIAL COMPLEX

A study of the military-industrial connection must revolve around three essential questions. First, what is a

military-industrial complex? Second, does a military-industrial complex exist in the Soviet Union? Third, does the military-industrial complex have an input in the political decision-making process? If a military-industrial complex with access to the decision-making process does exist in the Soviet Union, then this complex must have an interest in arms sales and military-industrial development in Eastern Europe. Eastern Europe provides a closed market for Soviet arms which then necessitates a large military-industrial capability. Production capabilities must be large enough to supply the Soviet and the WTO armies. The structure of the economic bonus system in the Soviet Union places a premium on increased production of output. Sales to Eastern Europe legitimizes the large production capabilities, and therefore managerial bonuses, by providing an additional consumer for Soviet arms.

Egbert Jahn views concepts of a military-industrial complex as primarily a capitalist phenomenon. He maintains that the popularity among bourgeois social scientists of military-industrial complex theories was an outgrowth of the Indochina War and the need for a scapegoat. Jahn states:

> The search to find the persons responsible for a policy whose consequences even more flagrantly contradicted the self-image and ideals of a bourgeois democracy and which inflicted defeats in foreign policy, national humiliation, and sharpening of social conflicts at home did not, however, lead to a fundamental critique of bourgeois society but to finding a scapegoat. The scapegoat chosen by the bourgeois for its act of self-criticism, corresponding to a certain depersonalizing and sociologizing of the historical understanding of bourgeois liberals, was not, as in former times, individuals, but a small group of persons

> who because of their profession openly and, to an extent, tangibly profited from the war: the professional military and the defense contractors, as well as their mouthpieces in the government, the administration and the national parties. [Ref. 108]

Jahn argues that the purpose of the military-industrial critique which argues for the elimination of corruption and profit in reality has two goals. First, to more effectively utilize the defense sector, and second, once defense is assured to release excess resources to other sectors. In effect Jahn maintains that the discussion of a military industrial complex is a further capitalist means of insuring political control. By developing a theory which explains abhorrent policy as the encroachment of a military-industrial interest group on the legitimate decision-making process, the real power-brokers divert attention from the actual problems inherent in a bourgeois society [Ref. 109].

William Tee defines the military industrial complex in terms of the broad spectrum of "people and institution engaged in national security objective" [Ref. 110] Mikhail Agursky and Hannes Adomeit defines military industrial complex as the formation of groups, both in and outside the government, who share a common purpose of concern over defense matters [Ref. 11]. David Holloway maintains that a military-industrial complex represents in the Western sense an "alignment between military and industrial interests" which then operates in the interest group environment [Ref. 112].

In a less restricted manner Vernon Aspaturian defines military-industrial complex as a continuum between two poles.

On one pole is the military industrial complex, defined in the broadest terms, which suggests "a deliberate and symbiotic sharing of interests on the part of the military establishment, industry and high ranking political figures, whose collective influence is sufficient to shape decision to accord with the interests of these groups." The other pole is the narrower concept of a military-industrial complex. Aspaturian defines this pole in terms of interlocking organizational structure of personnel that functions to a high degree as a single unit. He maintains, "In a more restricted sense, the concept implies an interlocking and interdependent structure of interests among military, industrial, and political figures, that enables or impels them to behave as a distinctive political actor separate from its individual components." The two poles establish the theoretical boundaries of a military industrial complex with the realistic existence of a military industrial complex in any nation state being somewhere along the continuum [Ref. 113].

Accepting Aspaturian's continuum as a reference point, the physical components of the Soviet military-industrial complex will be discussed followed by an evaluation of the complex's influence within the decision-making process. The physical components of the complex consist of four elements; the armed forces, defense industries and related research and development institutions, heavy industry, and the conservative wing of the party.

D. ARMED FORCES

The armed forces consist of the Ministry of Defense and all subordinate institutions. These institutions include the Main Military Council, the General Staff, the uniformed branches of the military, and the special directorates [Ref. 114]. The administrative structure of the military is staffed with professional military personnel [Ref. 115]. Though the current Minister of Defense, Dmitri Ustinov, is a civilian, he is one of the few ministers that has not been a professional military officer. Civilian control of the military is primarily exercised through party and government organs. Within the military, the main political administration functions as a parallel command structure and party watchdog. Externally, the Ministry of Defense is subordinate to the Council of Ministers, while the Minister of Defense is a member of the Party's Central Committee and therefore directly accountable to the Party [Ref. 116].

The inter-relation of ties between the military, Government, Party, and industry are complex. The Government, in the Council of Ministers is responsible for implementing Party decisions. Though the Ministry of Defense is subordinate to the Council of Ministers, actual control runs direct between the Politburo and Defense Council to the Ministry of Defense. The Council of Ministers primary interface with the defense sector is through their control of the resource allocation mechanism. The Council oversees GOSPLAN, the

primary economic coordinating body in the Soviet centralized economy. In theory, GOSPLAN determines and manages resource allocation throughout the economy; commercial and defense. In reality, the secretive nature of the defense establishment and its position as the sole military expertise below the top party officials changes its relationship with GOSPLAN. Within GOSPLAN, the military requirements are handled by a special Military Directorate. The GOSPLAN Military Directorate receives its direction from the Military Industrial Commission (VPK) which functions as the primary coordinating body for military research, development and production. The VPK is a working commission of the Council of Ministers with representatives of the Ministries of Defense, specific military industries, GOSPLAN and probably the Central Committee Secretariat. The Military-industrial Commission directs and manages the industrial defense sector but does not set policy. Policy is set in the Politburo, Defense Council, and General Staff [Ref. 117]. The military, through the party, can dictate defense requirements to the Government mechanisms.

Military ties with industry are maintained at all levels. Professional military representatives are present in defense production plants and research institutions. These representatives are responsible to the military and are accountable under criminal law to provide on-site review of production quotas and quality control. Initial requests for new weapons

and the number needed usually emanates from the services themselves and moves up the Ministry of Defense chain then over to the industrial side. The military, through Party representation, is able to influence decisions at the top policy making bodies and then monitor the implementation through its on-site representatives.

The Party and military inter-relate at various levels. As mentioned earlier, the main Political Administration within the military form a parallel structure to monitor affairs. Military personnel also belong to the Party. Vernon Aspaturian in 1972 put military Party membership at one million [Ref. 118]. Thirdly, military members of the Party are represented in Party institutions. Dmitri Ustinov is on the Politburo and military members are representatives on the Central Committee and Congress.

Overall, the military has some unique inroads to the decision-making process. The military has representatives in the defense industrial sector monitoring developments. This provides unique ties between the consumer, the military, and the supplier industry. Shortages of skilled workers or quality resource inputs can be addressed directly to the military and consequently to the Party decision-making process without going through the normal Gosplan bureaucracy. The defense sector, as such, functions as an economy on its own. The increased technical sophistication of military affairs and the secrecy of defense matters within the Soviet

Union further increases the power of the military as the primary authority on national defense matters. While expertise gives the military access organizationally to the decision-making process, Party affiliation and representation on key bodies ensures opportunities to present military views.

E. DEFENSE INDUSTRIES

The Defense Industries can be broken down into nine ministries.

1. Ministry of Defense Industry--conventional weapons
2. Ministry of Aviation Industry--aircraft, engines, parts, missiles
3. Ministry of Shipbuilding Industry--ships and submarines
4. Ministry of Electronics Industry--electronic components
5. Ministry of Radio Industry--electronic products
6. Ministry of Medium Machine Building--nuclear weapons
7. Ministry of General Machine Building--ballistic missiles
8. Ministry of Machine Building--ammunition
9. Ministry of the Means of Communication--telecommunications equipment. [Ref. 119]

Other Ministries may provide subcomponents or raw materials but these nine are the primary defense industries. Two main points are relevant for this study concerning the

defense industries. First, the defense industries have a special status within the Soviet economy, and second, the incremental innovative nature of the industries.

The special status of the defense industry, referred to by Vernon Aspaturian as an economy in an economy, exists due to fundamental asymmetries between its structure and market relationships over that of the rest of the economy [Ref. 120]. In his analysis Stanley Cohn maintains that the commercial Soviet economy is a "Chronic sellers market." The consumer has no real feedback loop into the system, and therefore must accept what is provided. In the defense lustries the consumer is the military who through the pres e of plant, R&D institution representatives, and politica power over the GOSPLAN mechanism, does have a feedback loop. e defense ministries must be responsive to their sole customer, the military. Second, Cohn demonstrates that in light of the need for the defense industries to be responsive, they are given greater flexibility in managerial control. The defense producers are assured of access to top quality skilled labor and necessary resources. The defense production ministries have direct control over the R&D institution affiliated with their concerns. Concerning managerial incentive Cohn argues "managerial bonuses amply reward defense production risk takers, because bonuses are structured to favor production of new products rather than stressing continued output of products of proved technological content" [Ref. 121]. U.S. defense intelligence analysts support

Cohn's contention stating:

> Over the last 10 years, they say, several trends have developed. They note that the scope of basic research aimed at military objectives has been expanded. They also point to a greater Soviet emphasis on using advances in one technology to offset deficiencies in another, a new willingness to take risks to achieve significant advances through speculative technological approaches, and an integrated approach to the use of new materials and fabrication technology to produce more sophisticated equipment. [Ref. 122]

Within the centralized Soviet economy, the defense industry operates by a different set of rules and incentives than the commercial economy. As Cohn notes, the special status of the defense industry is a major factor in the innovativeness shown in Soviet arms production. Though Cohn is correct that the defense industries are more innovative relative to the rest of the Soviet economy, there are still limits imposed by the reward system. The defense industrial managers are rewarded for taking risks, but not for failing. A system has developed encouraging incremental innovation, or risk, that tends to push technological progress but within certain limits. The managers are willing to take risks to receive the bonus, but not so great a risk as to jeopardize their position. In reviewing the Soviet decision-making process on new weapons systems, Arthur Alexander concludes:

> The dual-approval path encourages conservatism. Assent is most probable for a design resembling one previously approved. Deep rooted feelings has the decision in favor of those weapons that have been established in manufacturing, accepted by the commands, and operated by the troops. If such a weapon can be improved, the process favors keeping it going. [Ref. 123]

Innovation relative to the commercial economy exists, but only in incremental steps. U.S. defense analysts note:

> A fighter, the MIG-23 for example, incorporates the technology proven in older aircraft plus modifications, the 'risk factor,' introduced to need specifications laid down by the Soviet Ministry of Defense. These specifications might include an engine capable of a speed 100 miles an hour faster than present engines.
>
> As an example of the way Soviet designers incorporate proven technology in new aircraft, Pentagon sources point to the basic design, including the triangular grouping of the main spar, leading edge spar and the wing root rub, that has been used in all swept wing aircraft since the MIG-15 of the late 1940's. [Ref. 124]

The incremental innovation coupled with the special status of the defense industries and their bonus system help explain Soviet arms development. Aircraft, tanks, and ships have shown varied designs but all based upon the previous generation. The producers and designers have incentive to improve the designs but not to create radically new equipment. Once a design is proven, then the production rights and upgrade in technology is sought by the defense industrialists. This fits Michael Checinski's earlier allegations that the Soviets only transfer obsolete weapons production capabilities to Eastern Europe. The higher bonuses are received in the modern arms sector. As a new system is proved and developed, Soviet manufacturers switch to the production of new equipment leaving Eastern Europe to supply parts and replacement equipment for the older but still operational arms.

F. HEAVY INDUSTRY

The importance of heavy industry lies in its position as a primary supplier of raw material to the defense industries. As David Holloway notes, Soviet armaments development began under the Stalinist model of economic growth which emphasized heavy industry over the rest of the economy [Ref. 125]. Heavy industry was seen as the basis for military and therefore political power in the international arena. After Stalin's death and the decentralization of the economic ministries in 1957, heavy industry lost much of its prestige and power. Under Khrushchev and Brezhev efforts were made to create a more equitable balance between light and heavy industry. According to Vernon Aspaturian, Khrushchev's efforts fell short of desires:

> While the managers of heavy industry were no longer sufficiently powerful to arrest or resist Khrushchev's policies by themselves, the traditional association between heavy industry and a large military establishment, and the traditional association between the latter and national security, is so havitual that the interests of the managers were in fact being defended and promoted by the military and the conservative faction in the (Party) apparatus. [Ref. 126]

Seemingly, the Brezhenv period also failed to overcome the heavy industry-military-party conservative faction connection. This exerpt from a Soviet article in 1977 concerning heavy industry and consumer goods demonstrates problems still exist:

> However, hidden behind the pleasing average indicators for consumer goods release are lagging branches and enterprises which have paid little attention to consumer goods production, some of which do

> not produce them at all. This situation is generally explained as an alleged 'concern' for basic production: specialization is needed, they say, there needs to be a change-over to the release of other output, and so forth. But these words frequently conceal an opinion that consumer goods mean extra trouble and worry. There are still enterprises which year in and year out are unable to find the necessary consumer goods models, others which make what is simplest and easiest in order to avoid troubling themselves, still others who refer to a lack of production area, the load basic output puts on the enterprises, and so forth. There is generally no lack of reasons of all sorts.
>
> As a result, the proportion of cultural, personal-services and household items in the total gross output of individual branches is very insignificant. It does not exceed 2 percent in the case of the Ministry of Tractor and Agricultural Machine Building, the Ministry of Construction, Road and Municipal Machine Building, and Ministry of Power Machine Building. It was noted at the October (1976) Plenum of the CPSU Central Committee that, of the 19 industrial ministries, only five fulfilled their assignments for group 'B' output production in the last five-year plan. [Ref. 127]

The impression is that the heavy industrial sector is still primarily concerned with its traditional customer; the military. There is still a large split between the heavy industrial sector and light industry. The managers of heavy industry are entrenched, have strong allies of common purpose, and are not readily amicable to change.

G. CONSERVATIVE WING OF THE PARTY

The existence of a conservative wing of the party which can translate the views of the military, defense industry, and heavy industry into policy is essential for the concept of a military industrial complex to have relevance in the Soviet Union. The components for a complex exist but

it's their ability to affect policy that determines its position on Vernon Aspaturian's continuum. In the Soviet Union, the only way to consistently affect policy is through the top echelons of the Party.

The heart of the view that separate factions exist within the decision-making bodies of the Soviet Communist Party rests on the bureaucratic paradigm concept. The bureaucratic paradigm has been defined by Jiri Valenta in these terms:

> Soviet foreign policy actions, like those of other states, do not result from a single actor (the government) rationally maximizing national security or any other value. Instead, these actions result from a process of political interaction ('pulling and hauling') among several actors--in this case, the senior decision-making and the heads of several bureaucratic organizations, the members of the politburo, and the bureaucratic elites at the Central Committee level. Bureaucratic politics is seen as based upon and reflecting the division of labor and responsibility for various areas of policy among the politburo members. This division arises from two historical conditions characteristic of the post-Stalin era: (1) a highly developed bureaucratic political system and (2) a collective leadership within which no single leader possesses sufficient power or wisdom to decide (or willingness to accept responsibility for) all important policy issues. [Ref. 128]

Within the bureaucratic paradigm, the primary decision-making body, the politburo, consists of various coalitions. The power of a particular Politburo member, rests on the power and cohesiveness of his coalition. The succession to power and consolidation of power is determined by a leader's capability to form and maintain a coalition within the Politburo.

Support for the bureaucratic paradigm among many Sovietologists is high. Jiri Valenta in his study of the Soviet intervention of the bureaucratic paradigm in Soviet decision making [Ref. 129]. David Holloway, though stating source material is difficult to obtain on the subject, implies that the military-industrial complex exists as part of the bureaucratic coalitions. He states:

> Furthermore, it is essential to ask how that structural framework fits into the social system as a whole, in order to understand how it reproduces itself. The Soviet armaments complex should be seen not as a military-industrial complex in the sense of an alignment between military and industrial interests, but rather as part of a bureaucratic complex in which various groups, coalitions and departments interact and form alliances in the pursuit of particular policies. This is not to deny that cleavages exist, but to suggest that the armaments complex should be viewed as a bureaucracy rather than as a field for interest group activity. [Ref. 130]

William Odom in his study of the Soviet military-Party connection ties the bureaucratic politics directly to the Party. Odom states: "the military is an administrative arm of the party, not something separate from and competing with it. When there are cleavages in the leadership over military policy, they are intraparty factional divisions, not divisions of party vs. military" [Ref. 131].

H. CONCLUSION

Within the Soviet Union, the military, the defense industrial, heavy industries, and a segment of the party share a commonality of interests. This commonality of interest is far from functioning as a single unit as an

Aspaturian continuum. But the commonality of interests and interlocking reliance for power is enough to maintain the existence of a military industrial complex that influences policy within the Soviet Union.

Soviet internal politics affecting arms transfer policy to Eastern Europe is not new. Thomas Wolfe maintains that the initial modernization of Eastern Europe forces by Khrushchev was partially due to internal forces. Khrushchev, trying to decrease the size and influence of the large Soviet ground forces, modernized the non-Soviet WTO forces maintaining that in the nuclear age that the East European armies could provide a higher portion of the conventional forces. Though the maneuver did not decrease Soviet forces, his burden sharing concepts did help modernize East European forces [Ref. 132].

Currently, Andropov's position is based on the national security coalition, or in effect, the military-industrial coalition. This is not to say that it is a military coalition, but a coalition of forces consisting of Party, industry, and military elements. The Party, and Party control, is preeminent but concessions have to be made in policy goals to the other elements to maintain the coalition. These policy goals would also include the national security aspect of arms transfer to Eastern Europe.

The imperative from the industrial sector is first to maintain production, and bonuses, by modernizing Eastern Europe. The cost, or expended resources, is irrelevant

since the incentive system is based upon production. Second, restrict production of modern equipment to Soviet industry. Again, bonuses are maximized by producing the most current arms. Once a new generation is produced then the license for the prior generation can be passed to Eastern Europe.

The military imperative rests on the reliability of Eastern Europe as discussed in Section III. The military views Eastern Europe primarily as a means of strategic access and secondly as a buffer zone. They want Eastern Europe armed capabilities equal to her reliability. In reality this means that short of the development of a supra-national military establishment under Soviet control, Eastern Europe will always lag a generation behind Soviet arms.

IV. CONCLUSION

Chapter I demonstrated that a prime Soviet rationale in arms transfers is to prevent the development of indigenous national defense industries in East European nations. The transfers are not meant only to influence through dependence on equipment, but also through the maximization of the Soviet ability to intervene. With limited means of national defense available to the East European states, the massive Soviet military power can be successfully transformed into political influence. Decisions can not be made in the East European capitals without taking into consideration Soviet desires and the possibility of Soviet military action.

Chapter II demonstrated that, though the East European armies are not equal in status with their Soviet counterparts, they do fulfill a military function within the WTO. Their role in WTO doctrine is a function of reliability and political stability. The greater the internal support of the regime and the greater its ability to define national interests in terms of Soviet "socialist internationalism," the greater its reliability in Soviet eyes. As the necessity for exerting influence through coercive means, as analyzed in Chapter II, diminishes the Soviet desire to maximize the military effectiveness of Eastern European armies increases. Modernization thus becomes an instrument to give

Eastern Europe the military capabilities to realistically represent an accretion to Soviet power. Current Soviet policy of maintaining East Europe one generation behind Soviet military forces is probably the maximum extent of acceptable modernization. Modernization on an equal level with Soviet forces would require complete integration of WTO forces into a supra-national force under Soviet control. As it stands, the East European forces do carry out a credible defensive role within the WTO.

Chapter III discredits the principal economic factors as defined by Kemp and Miller, and demonstrates imperatives peculiar to the Soviet political-economic system. Soviet armament industries are not independent institutions working within a market economy where profit is a prime motivator. The industries are state-owned and a part of the military industrial complex whose commonality of interests with political factions translates into political influence. The status of individuals in defense and heavy industry, and therefore their access to the reward system, is a function of the relative importance of defense and military power to the political hierarchy. Eastern Europe, an arms market defined as a national defense imperative, helps legitimize the necessity for a large defense sector. The commonality of interests between national security-oriented party factions, the military, and defense-related industries facilitates the translation of military and industrial defense sector desires into Soviet national policy.

Soviet policies, manifest in arms tranfer programs toward Eastern Europe, revolve around maintenance and exploitation. Of primary concern is the maintenance of Eastern Europe as a defensive buffer zone, offensive springboard, and ideological bloc under Soviet leadership. The desire to exploit the military and industrial potential of Eastern Europe is secondary. Both the CMEA and WTO function to coordinate and control East European military and industrial capabilities as a subcomponent of the Soviet Union's. In both cases, control is exerted to insure that developing East European capabilities only augment Soviet assets and cannot compete. In light of this, two general inferences can be made about the Soviet-East European arms connection:

1. Short of the development of a supra-national WTO force under Soviet control, WTO modernization is currently at a high point. The development of internal problems, as in Poland, increases uncertainties as to reliability and will therefore slow Soviet modernization efforts in the specific countries affected by such problems.

2. Eastern European defense industrial capabilities, short of complete integration by CMEA, will always be minimal. The Soviets for both national security and internal economic imperatives will retain the role of predominant supplier. No industries will be allowed to develop that can compete with the Soviet defense sector.

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