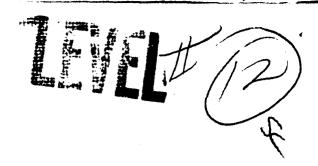
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A Comparison of the Polish and Soviet Armaments Decisionmaking Systems

Michael Checinski

January 1981

A Project AIR FORCE report prepared for the United States Air Force



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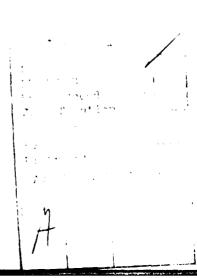
The accessible Polish literature, the author's experiences in Poland, and interviews with former key Polish personnel open a 'window' on the Soviet military-industrial complex. Discussion of Polish and Soviet systems identify and describe lines from the highest decisionmaking body (the Polish Committee for National Defense, the Soviet Defense Council) through intermediate military-bureaucratic bodies (Military Industrial Commission, General Staff components, the military group of each Central Planning Commission, the military departments of the industrial ministries) to the military "buyers" (voenpredy) in the factories, institutes and other enterprises. Soviet Defense Council military doctrine and strategy influence all economic planning and development in the USSR. The military elite and the military-oriented Party leaders tend to push for rapid modernization, while the military industrialists are reluctant to change. The direction of Soviet defense policy and size of Soviet military forces are decided solely by the Party First Secretary and the Politbureau together with the Defense Council. 87 pp. (Author)

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PREFACE

This report was prepared as part of the Project AIR FORCE study effort "Soviet Strategic Competitiveness: Constraints and Opportunities" in close association with the Office of the Assistant Chief of Staff, Intelligence, Hq USAF. The purpose of the report is to enhance understanding in the West of the Soviet military-economic decisionmaking system, primarily by comparison with its Polish counterpart. A clearer perception of the institutions and processes of Soviet military-economic decisionmaking, in turn, should improve Western assessments of how Soviet policymakers might react to intensifying domestic economic constraints in future decisions on the allocation of resources between military and civilian cases.

The author, Dr. Michael Checinski, was formerly an officer in Polish military counterintelligence, lecturer in the Polish Military Counterintelligence School, and senior lecturer and research officer of the Institute of War Economy and Faculty of War Economics of the Polish Military-Political Academy. He emigrated to Israel in 1969 and is currently on leave from the Division of Research and Planning, Ministry of Immigrant Absorption of the government of Israel, as an Associate of the Russian Research Center, Harvard University. The text is based in part on his professional experience in Poland, in part on interviews with former Polish officials, and in part on Polish, Soviet, and Western published sources.



SUMMARY

The military-industrial complex represents a huge part of the economic, social, and political life of the USSR. The material substance of Soviet military and political power is built, first of all, by military industry. Only through an examination of how this complex operates, and how it was developed, is it possible to analyze and comprehend Soviet military policy. Moreover, knowledge about the Soviet military-industrial complex makes it easier to picture the Soviet economy as a whole.

The lack of published sources in this area is the main obstacle for a detailed analysis of the Soviet military-industrial complex. Some Sovietologists have attempted to overcome this barrier by transferring western military-industrial experience and models to the Soviet socioeconomic system. This approach has been productive in only limited respects. Many questions are still unanswered, and knowledge of the most important links and of the decisionmaking system in this area remain obscure. Using the more accessible literature and information on the Soviet satellite states as a "window" to the Soviet military-industrial complex was neglected.

The Polish experience in the military industry has special importance in this regard. Poland is the biggest Warsaw Treaty Organization (WTO) member, and its industry, built from the ashes after World War II, is also the most "Sovietized." It is the single state among the WTO countries where military-economic publications are represented in the most multi-faceted way, on a fairly high scientific level. Many Polish military-economic writers are directly involved in military-industrial planning and are well represented in teaching and research.

This report is a comparative analysis of the Polish and Soviet military-industrial decisionmaking systems. Such a comparison should provide a better understanding of the operation of the entire Soviet mechanism of armament planning, production, and procurement.

The Polish military-industrial complex contains the following decisionmaking bureaucratic establishments and links:

1. The highest decisionmaking body in Polish military-industrial affairs is the National Defense Council, the top of an organizational network of defense councils of districts, regions, cities, factories, and villages. This network remains in permanent contact with the military and civil-defense staffs and is prepared to act in times of crisis or war. Although the prime minister is the formal head of the National Defense Council, the Party First Secretary manages it in fact.

The Council prepares the main directives for all aspects of defense policy. It acts according to analyses and advice provided by three military-bureaucratic bodies: (1) The Military-Industrial Commission, (2) The General Staff of the Polish Armed Forces and the Main Inspectorate for Armament, and (3) The Military Group of the Central Planning Commission.

2. The Military-Industrial Commission finds operational solutions and compromises to adhere to the requirements set down by the General Staff and the Main Inspectorate for Technology, which are in turn responsible for the whole armament procurement system. These requirements are set forth by the representatives of the Military Group of the Central Planning Commission together with the managers of the military-industrial sector, who are also members of the Military Industrial Commission.

A Comecon Military-Industrial Commission decides the economic aspects of armament cooperation and trade. In the 1970s the Warsaw Pact Technical Committee was created to decide the military aspects of WTO technological policy.

3. The General Staff and the Main Inspectorate for Armament play the leading role in preparing the plan of armament demand and in executing the armament supply plan. The Chief of the latter is also one of the vice-ministers of Defense, and his deputies are commanders of the most important technical military services and activities of the Polish Army: The Rear Services Command plans and carries out requirements for food, clothing, fuel, housing, etc. in terms of both physical units and financial estimates. There are three different interrelated supply plans: (1) a one-year or two-year plan, (2) a five-year plan,

- and (3) a long-range (15-25 years) plan. These are strictly coordinated and integrated with the nonmilitary national economic plans.
- 4. The Military Group of the Central Planning Commission is the most powerful institution, deciding what is and what is not possible to produce, to invest, or to buy abroad. This body has complete and current information about economic R&D and the country's industrial capabilities. It is also the only bureaucratic body able to prepare a counter-proposal in the military-industry area different from that presented by the General Staff and the Main Inspectorate for Armament.

The Military Group is obligated to adjust its needs to fit the country's economic and technological capabilities while influencing the national economic planning so that important military industries and services will be given top priority, even at the expense of crucial consumer needs. The extent to which these needs are sacrificed is set by the National Defense Council and the Politburo of the Party. The Mobilization Department of the Planning Commission's Military Group is also obligated to plan production reserves and other facilities during times of war.

The Military Group is the supervisor of a network of military departments, which operate in all ministries. The Chief of the Military Group is in regular contact with the Central Committee Party Secretary responsible to the Politburo for military-industrial affairs, and has close and long-standing relationships with the National Defense Council.

- 5. The military departments of the industrial ministries coordinate the civilian and military plans of the ministry in accordance with the instructions of the Planning Commission's Military Group and the demands of the Main Inspectorate for Armament. The military department of the ministries must also resolve daily conflicts arising between the civilian and the military production plans and between the factories and the military buyers (vocnpredin) pertaining to the quality, time—table of production, supply, etc. The mobilization sections of industry military departments influence all civilian programs for producing goods, including standards, constructions, etc. useful to the military, especially during times of war.
- 6. The $voen_i redy$ act on the lowest levels of the military-industrial complex--factories, R&D institutes, and other military and civilian

enterprises. They assure the quality of their factory's products and maintain a strict timetable for the goods delivered to the military. They also secure any ordered mobilization reserves and supervise the quality of specially constructed parts. In the civilian R&D institutes, the *voenpredy* transmit useful new technological solutions and information, particularly know-how imported from the West, to the military R&D institutes and channels.

The structure of the Polish military-industrial complex, modeled on the Soviet pattern, is built to be an organic part of all factories, ministries, and planning establishments. The military-industrial bureaucracy embraces the whole national economy from top to bottom.

This statement is even more appropriate for the Soviet economy, with its huge military-industrial sector. The Polish example and published sources permit the following statements about the USSR:

Three managerial-bureaucratic groups operate in the Soviet military-industrial complex: party, military, and industry. All three groups are intregrated into the Defense Council at the top levels.

The most powerful person in the Defense Council is the Party First Secretary. His position is ensured by his nomination to be the head of this body and the Chairman of the Presidium of the Supreme Soviet. The Party ruler can use the decisions of the Politburo to enforce Defense Council decisions, or vice versa. No one can force the Party ruler to make decisions regarding military and military-industrial affairs that would contradict his own political vision.

The military elite is able to influence the Defense Council's and Politburo's decisions only in the form of advice, especially in the process of preparing doctrine and strategy. Doctrine and strategy accepted by the Defense Council influences the whole economic planning and development of the USSR, but the military elite must match its strategic concept to the framework of the country's economic capabilities, which are estimated by the Military Department of Gosplan. That is why this department's position sometimes conflicts with the demands of the Soviet military command. The military industrialists, especially military-industrial ministers and managers of military-industrial enterprises, are not really antimilitaristic, just realistic and conservative.

In an age of very rapid technological change in the design and construction of weaponry, the military elite and the militarily oriented party rulers are willing to modernize industry and production plans; but the military industrialists are reluctant to effect change. The impediments created by the military industrialists could be overcome by specific administrative and economic solutions. It is the Military-Industrial Commission, an important bureaucratic instrument of the military and party elite, that helps to find such solutions.

The view that the party ruler is a "nice fellow" and a "dove" who is pressured by the military elite and military industrialists to increase weaponry production is a misinterpretation. The Party First Secretary and the Politburo, together with the Defense Council, solely decide the direction of armament policy and the size of Soviet military power.

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INTRODUCTION

This report is based on three sources: (1) published articles and books, (2) my personal knowledge and experience, (3) interviews that I conducted with four former high Polish officials engaged in militaryindustrial planning, production, and procurement. The military-industrial complex of Poland was built and developed by Soviet experts and advisers. Its functions and organizational structure are to a great extent a copy of the Soviet model. As the Polish Short Military Encuclopedia noted: The organization of the chief military authorities in Poland is similar to the organization of these bodies in the USSR and in other states of the socialist camp." A Western scholar agrees that "the organizational structures of the East European defense forces are closely, if not fully patterned after the Soviet model, and Warsaw Pact command and control principles are taken straight from Soviet military doctrine." Soviet experts and advisers were the architects of the Polish military-industrial complex. In addition, some interviewees confirm that the whole postwar Polish military-industrial planning, production, and procurement system was a copy of the Soviet pattern. I used my interviews and personal knowledge to compare the Polish and the Soviet armament decisionmaking systems.

The differences in this field between the two countries are not significant, and are more quantitative than administrative or organizational. Some disparities between the bureaucratic systems of the USSR and Poland cannot, of course, be neglected.

This study will provide a fairly detailed description of the history of the Polish military-industrial system, with an emphasis on the organizational, administrative, and personnel aspects. This can help to reveal a number of unknown links and activities in the Soviet armament planning, production, and procurement system. It can also promote a better understanding of the relations among the Warsaw Treaty Organization (WTO) countries in the area of armament planning and cooperation.

Because Poland, like other countries, has in principle the same economic, social, and political system as the USSR, analysis of the Polish experience can be considered typical for all WTO countries.

NOTES TO SECTION I

- 1. The interviewees are now living in the West. For different reasons their names cannot be published. The taped cassettes and notes of these interviews are in my possession.
- 2. Mala Encyklopedia Wojskowa, Vol. 2, Warsaw, Ministry of Defense Publishing House, 1970, p. 368.
- 3. Robert L. Hutchings, "The 'Entangling' Alliance: The Warsaw Pact on Its 25th Anniversary," Background Report 108 (Eastern Europe), Radio Free Europe Research, 8 May 1980, pp. 8-9.

II. THE FRAMEWORK OF MILITARY AND MILITARY-INDUSTRIAL PLANNING IN POLAND

THE DEVELOPMENT OF THE POLISH MILITARY-INDUSTRIAL COMPLEX

The Polish military industry was recreated immediately after World War II. First, ammunition factories, armories, and airplane-repair installations were reconstructed. Between 22 and 26 May 1946, a meeting was arranged in which for the first time since the war the Polish and Soviet governments discussed the problems of supplying the Polish army with armaments. Both sides decided that because of the difficult economic situation in Poland, the military industry should be developed little by little. Several Polish party and government leaders even supported the view that Poland should totally abstain from developing new armament factories. 1

In 1945 the Central Administration of the Armament Industry was created. However, almost at the first stage of the Sovietization of Poland in April 1974, this administration, based on the prewar Polish experience, was abandoned. Simultaneously a Military Bureau was created in each industrial ministry whose role was "to coordinate the plans and activities of that ministry with the defense plans of the State, which were prepared by the Ministry of Defense; to formulate advice in the area of national defense; and also to carry out the current armament supply plan for the military." The role of the Military Bureaus and their formal status have remained substantially the same up to the present.

In 1950, Poland started to carry out the Six Year Plan (1950-1955), which played a significant role in rebuilding the country's economy and directing its future development. In its final version, the Six Year Plan provided for the development of military industry only to a very small degree. It stipulated that the military industry's investments, together with worker's housing, should not exceed 2 percent of the total amount of investments at that time. Poland was able to institute such a policy because there was no danger of war on the horizon. The turning point came after the outbreak of the Korean War in 1950. That

October, the Polish Politburo ordered the immediate preparation of a "supplement" to the Six Year Plan. It anticipated two very important changes in the plan's investment program:

- 1. The original Six Year Plan of military-industrial investments was now to be fulfilled within two years.
- 2. New investment programs were to be planned in conjunction with the Soviet Union for the construction of a new modern weaponry base. 4

The supplement was prepared in the form of a military production annex to the Six Year Plan. It was designed in a very short time by a group of Central Planning Commission (CPC) members partly under the direction of the CPC Investment Department, but mostly under the Military Group's Department for Cucrent Armaments Production.

The Polish Army Chief of the General Staff, General Wladyslaw Korczyc, supervised the drafting of the supplement. He had direct control over the supply plan for the Polish military's weaponry and equipment. The Annex did not officially stipulate changes in the Six Year Plan, but the program of military-industrial investments weighed so heavily upon the Polish economy that projected implementation in all nonmilitary sectors was in great part nullified.

In official Polish literature the Military Annex's consequences were never analyzed, although such documents were prepared in the Military Group of the Central Planning Commission. The Military Annex's demands for military-industrial investments were so urgent that it was necessary to take over the best production factors and cadres of the nonmilitary sectors. The destruction of these sectors' capabilities for fulfilling the plan was actually more significant from a qualitative than a quantitative standpoint. Such difficulties are also typical of the Soviet system.

The transfer of the best engineers, technicians, managers, and workers from the nonmilitary to the military sector was quite detrimental to the Polish economy. In steel factories where certain grades of steel were produced for tanks, artillery, and other armaments,

special production sectors were set up, and the top steel mill personnel from the civilian sector were transferred to them. Those workers were replaced by poorly qualified personnel. Consequently, the most vital civilian and military production for a long time suffered because these workers were unqualified for their specialization. Neither group could produce quality goods for months, and both sectors' production plans were stymied. Problems of this type arose in other industries as well, reducing a significant part of the Six Year Plan to fiction.

According to the interviews I conducted, the military-industrial complex's development did have some positive influence on Poland's economy in the long run. It furthered the development of modern technologies and expedited the preparation of numerous top-notch workers and technicians. Nevertheless the economy paid a very high price.

In the early 1950s Poland undertook the manufacture of tanks, military airplanes, radar, and communications equipment. Old artillery and ammunition factories were modernized, and new ones were built. This also led to the modernization of nonmilitary industries that operated in conjunction with the military sector—for instance the steel, rubber, electronics, and machine—building industries. The military procurement system was disseminated through the civilian sector, and military representatives ("voenpredy") were sent to those nonmilitary installations that were collaborating with that sector. In this way these civilian industries were obliged to develop the necessary technology and improve production quality.

Along with the military industry's essential foundations (factories, technology, machines, workers, reserves), organizational and administrative systems were built to plan, procure, manage, and produce according to the military's needs. Such systems were in fact inaugurated immediately after the war, yet until 1949 Poland executed these functions independently. About 10 percent of prewar Polish experts who willingly cooperated with the pro-Communist government were engaged in this work. These men likewise aided the organization of the Polish military industry. After 1949, when Stalinization was in full swing, Soviet advisors stationed in Poland exerted great pressure to turn the Polish military industry's administrative system into a carbon copy of the Soviet model.

Morcover, the Soviets took over control of the cadres, selecting people who professed total loyalty to the USSR.

The Soviet Union's demands were voiced at the time when the entire Polish economy was beginning to mirror its Soviet counterpart. Soviet demands for the organization of the military industry were just one aspect, and a logical consequence, of the whole process of polish Sovietization.

After the Korean War began, the design of the Polish military-industrial complex on the basis of Soviet instructions proceeded more rapidly. That development did not stop or change ever after 1955, when the Polonization of the military-industrial managerial cadres began.

TOP-LEVEL DECISIONMAKING: THE COMMITTEE FOR NATIONAL DEFENSE (KOK)

The starting point of Polish military doctrine is that a future war can totally destroy the most important administrative and economic centers of the state. Organized life for society will be possible only if a well-prepared and fully centralized administrative structure is ready to act immediately after war starts.

In Poland, as in other Warsaw Pact countries, the administrative and economic system is already centralized in peacetime. The differences after a war starts will consist first of the total integration of all aspects of the economic and social life of the society with the military system and tasks. A totally militarized society will also be organized. However, because the consequences of an atomic war will be different from those in past wars, the war administrative system must also be decentralized. In this way, even if all organizational and economic relations between different parts of the country are torn apart, the local administration can still function.

The need for both a stronger centralization and efficient decentralization of the administrative system results also from the fact that the war can start unexpectedly, after a short political crisis. For this reason Polish military doctrine is based on the readiness of the military, the society, and the economy for war during peacetime.

The military-economic administration of Poland was built in the early 1950s, when Stalin though the war in Korea was a first stage in the third

world war. This administrative system remained secret until 1967. Its organization was not constant during these years, but its name remained unchanged: the Committee for National Defense (Komitet Obrony Kraju). In different stages of the development of Soviet military doctrine, and in accordance with the changes in modern weapons, KOK's tasks and structure also changed.

After approximately 17 years of operating secretly in Poland, on 21st November 1967, KOK was officially created as a body of the Council of Ministers. 10 KOK is, in fact, not a single body but a network acting within the framework of the administration of the country (see Fig. 1) as a parallel, "shadow" administrative link, on each level (district, region, city) and in each big plant. The difference between the civilian administration and the KOK network is that the latter is in permanent contact with the military staffs of the districts, regions, etc. The whole apparatus of the KOK administration is also permanently prepared and educated to act in time of crisis and war.

At the apex of KOK, the Secretariat of KOK's national committee acts as a bureau of the Council of Ministers. If a state of war is declared, this secretariat is organized in such a way that it can be transformed into an operating political-administrative and military decisionmaker. However, even in time of war, it is not a substitute for the military General Staff, although it is staffed by high ranking officers as advisors to the members of KOK. In peacetime, the close link between the network of KOK and the military is maintained at each level by the military commanders who are members of the local KOK. At the top are the Minister of Defense and the Chief of the General Staff; at the lower levels are the commanders of military districts, regions, city-garrisons, etc. On each level of the KOK network, a small secretariat operates with the same tasks as described above (see Fig. 1).

Only the KOK of the Council of Ministers has the authority to decide about the most crucial military-economic problems. It is the highest abministrative forum that is empowered to discuss and decide how to divide the GNP between military and nonmilitary tasks and to approve the military and military-economic doctrine and other matters of military operations (for example, the invasion of Czechoslovakia). KOK decisions

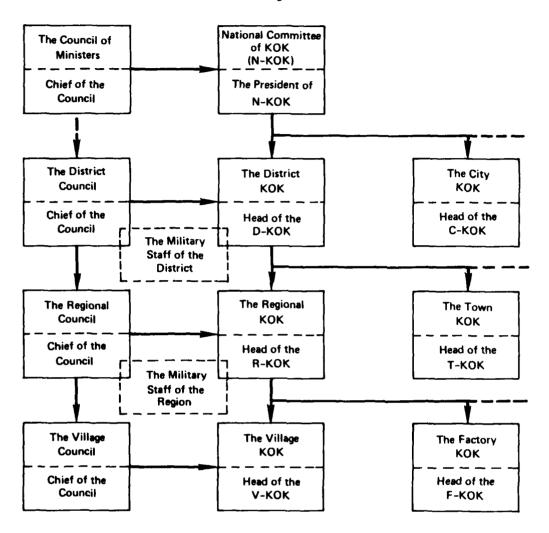


Fig. 1--The organizational structure of Poland's Committee for National Defense (KOK) in peace and war

are not necessarily discussed by or submitted for discussion to the Politburo. Only the Party First Secretary and the Prime Minister decide what to submit and what not to submit to this highest Party body for approval.

A very few members of KOK at the national committee level have been identified. On the lower levels, the identities of personnel are kept secret. The members of the national committee are the Prime Minister, as president; the Minister of Defense, as his deputy, responsible for the military and for strategic planning; and other members, nominated in accordance with needs. ¹² In fact, however, the First Secretary of the Party Central Committee is the head of KOK both in peace and in war. In peacetime, the KOK network is included in the administrative system of the central government, of districts, regions, cities, and villages; and its participants are integrated into the chief roles in the bureaucratic apparatus. But this shadow network will act as the official ruler and supervisor of all aspects of life in the country if and when war breaks out.

There are links of the KOK network in every level of the administrative system of the state, allowing permanent contact with all activities of the administration of the state, cities, villages, factories, etc. This contact is secured by the participation of the civilian administrative officials in the activities of the national committee and the local units. The central and operational responsibility for securing these contacts is fulfilled by the Ministry of Defense with its local military staffs, and the local civil defense staffs (see Fig. 1).

All KOK committees are subordinate to their immediate higher level supervisor, parallel to the administrative offices. But in horizontal links, they act in full coordination with the local military staffs. In peacetime all forms of activity of the local committees (investments, production, reserves, services, education, training, organizational decisions, etc.) are managed in accordance with the directives of the different ministries and with the current tasks of the one and five year plans. The committees influence the local planning departments and sections in their preparation of these plans. The highest supervisor for all committees is, therefore, the national committee; but for every form

of activity, the local committees must act within the framework of the directives of the ministries or the CPC.

The Head of the Military Group of the CPC and each minister or vice-minister is a member of KOK; some of them are permanent members of the National committee, and others act only as head of the committee of their ministry. Ministers whose ministries are engaged in armament production are sometimes members of both the National committee and the Military-Industrial Commission. In peacetime these ministers build the links between military and civilian activity at the top level of the state administration and help to coordinate KOK committees with the local administration.

The vice-ministers make up the operational executive and the backbone of the "shadow" KOK administration. They are responsible—one in every ministry—for the current activity of this link. Only in exceptional cases are the members of this link themselves directly managed by their ministers. KOK members who are vice-ministers must submit oral or written reports to their ministers about KOK activity. Each important economic, administrative, or other decision resulting from the demands of the superior KOK must be discussed with and approved by the corresponding minister. In this way, ministers are kept up to date on all military—economic affairs involving their ministries. After a state of war was declared, each minister could start immediately to manage the reorganized ministry, or to fulfill other tasks if the ministry, in the more centralized war—economic system, is to be dis—solved.

Those vice-ministers who are members of KOK are divided into two groups: the economic ministries (industry, agriculture, transport, etc.), and the other ministries (health, education, social services, etc.).

The vice-ministers or ministers who are responsible for the activity of the KOK committees are also in permanent contact with the head of the military department of their ministry and must, together with him, resolve the current problems of the military production program and problems of a mobilization program prepared for wartime. In each department of the ministry at least one high official is responsible

for executing the military aspects of the ministry's civilian plan in coordination with other military or civilian links.

As in the ministries so also in the districts, regions, cities, etc., KOK committees are responsible for execution of the current military plan in coordination with the local civilian administration and civil-defense staffs. After an outbreak of war, the committees must also put the mobilization plan into operation.

When the national committee declares a state of war, heads of the civilian links of the administrative system will be changed by the heads of the local committees. In peacetime the deputy Party secretaries of the districts, regions, cities, etc. are members or heads of the local committees, but in wartime this function is reserved for the first Party secretary. Only in exceptional cases will government rather than Party officials be heads of committees. In factories, the Party secretaries become members, but not the heads of the committees. The national committee is the synthesis of the Party Politburo, government, military command, and Polish parliament executive, and therefore it is an instrument of the dictatorial position of the Party Central Committee's First Secretary in all aspects of defense policy.

THE MILITARY-INDUSTRIAL COMMISSION

The basis for military-industrial planning in Poland is the military doctrine approved by KOK, which also determines the most important military-industrial investments and production programs. In fact, after 1945 Poland never succeeded in forming an independent military doctrine or military industrial program. Such illusions existed for only a short period after 1956. Wery quickly the Soviets forced Poland to subordinate all military-industrial programs to Soviet plans, which were supervised through the Military-Industrial Commission of the Council for Mutual Economic Assistance (Comecon). Polish military expenditures and military-industrial investments are, therefore, mostly the result of Soviet demands and pressures with only a slight amount of consideration for Poland's capabilities and interests.

Before 1956, Poland also had to carry out the military-industrial programs in accordance with Soviet demands. Although the arrangement

was nominally "bilateral," the Soviets were dominant. One example will suffice to explain the quality of this relationship. In the early 1950s, Moscow demanded that Poland immediately begin the construction of large military vessels for the USSR. Poland's ship-building industry was at that time industrially and technologically incapable of carrying this out. The head of the Military Group of the CPC went to Hilary Minc. then Vice Premier and Chairman of the Economic Committee of the Council of Ministers as well as head of the CPC. and to Eugeniusz Szyr, the second Vice Premier, who was responsible for the military-industrial sector, with a request to influence the Soviets to change their demands. Minc, who was a member of the Party Politburo, did not have the courage to address the Soviet leaders on this question. Instead, he turned to Jan Dzierzynski (son of the organizer of the Soviet secret police), who was responsible for Polish affairs in the Soviet Central Committee. Only after Stalin's death did Dzierzynski manage to change the Soviets' demand.

After 1956, this way of acting was no longer convenient for the Soviet union, and they decided to prepare an umbrella organization that would camouflage Soviet domination over Warsaw Treaty Organization members in the field of military industry. This body began its activities in 1957 as the Military-Industrial Commission of Comecon and is a secret body to this very day. Members are either heads of military departments of the CPC or heads of military-industrial programs in the Comecon countries.

National military-industrial commissions were created simultaneously. The main task of this commission in Poland is to discuss the requirements set by the military command and to approve the military supply plan in all its aspects: the scope and pace of military investments and production, the R&D programs, the responsibility for these activities among the enterprises and ministries, etc.

Only a limited number of persons (or establishments) are permanent members of the Polish Military-Industrial Commission (MIC) and regularly participate in the sessions of this body. The remaining members join only if the matters under discussion are related to their position in the military-industrial or other ministries' decisionmaking systems. The permanent members of the MIC are:

- 1. The Chief of the Military Group (Szef Zespolu Wojskowego) of the Central Planning Commission. Currently this is probably General M. Knast.
 - 2. The Main Inspector for Armament of the Polish armed forces.
- 3. The Chief of the Military Department of the Ministry for Machine Building. In Poland this ministry has the leading role in the production of weaponry and military equipment.
- 4. The Chief of the Military Industry Section of the Industry Department and the Chief of the Administration Department of the Party Central Committee. Although they are permanent members, they attend only those sessions they consider to be sufficiently important.

The nonpermanent members of the MIC are:

- 1. The Chief of the Military Department of the Ministry for International Trade (which operates under the cryptonym "Engineering Department").
- 2. The heads of the military departments of ministries whose problems or programs are being discussed.
- 3. Other persons whose presence is important for resolving the questions under discussion. These may include the Deputy Chief of the Committee for Science and Technical Affairs responsible for military programs, or the Deputy Chief of the Committee for State Stocks, or other persons.

Until the early 1970s, the function of the Comecon MIC was to approve the tactical and technical parameters of weapons and equipment produced in the WTO countries in the framework of the cooperation programs, the standardization and allocation of military-production requirements among the enterprises of the Comecon countries, the coordination of scientific and military research work, and so forth. The growing role of the production capacities, technical knowledge, and scientific discoveries in East Germany, Czechoslovakia, Hungary, and Poland, and the rapid modernization of the WTO armies, induced the members of the WTO command to create an additional body, the Warsaw Pact Technical Committee, which acts as an integral part of the WTO command. This body probably took over much of the Comecon MIC activities. The military aspects of the Comecon countries' technological policy and development are discussed primarily at this level. The Comecon MIC decides

the economic and financial aspects and conditions of armament cooperation programs. These two bodies also discuss different aspects of exports of military equipment and paramilitary aid to non-WTO countries.

Decisions of the Comecon MIC and the Warsaw Pact Technical Committee are often binding upon their members. Some recommendations, however, take the form of advice, merely advocating one or another course of action. All important decisions or programs of the Comecon MIC and Warsaw Pact Technical Committee must be approved by the governments of the WTO states.

The Comecon MIC meets in Moscow no less than three times a year. Before each meeting, the Polish group leaves the country with specific instructions from the Party's Politburo. At each Moscow session, a fierce battle takes place. The deepest conflicts revolve around the question of how to assign duties in the military industry cooperation program. The conflicts arise primarily between Moscow and her satellite states, but also among the East European members themselves. Usually, Moscow's representatives make harsh demands on the Comecon states to approve particular sections of proposed military-industrial programs. Poland achieves compromises by paying off the USSR or another Comecon country. If a member capitulates in the face of demands to carry out an "inconvenient" military-industrial program, he gains the possibility of asking for an additional "convenient" program for his country. "Inconvenient" programs are those for which machines or raw materials had to be bought in the West with hard currency. For instance, in the 1960s Comecon members bought nickel and cog-wheel machines in the West that were needed by the military. "Convenient" are those types of production that draw on the member's reserves, and for which production reserves are developed.

The Military-Industrial Commission of Comecon is divided into separate substantive sections composed of groups of experts. 16 Not every section meeting is productive or convenes for any sensible reason. Each meeting is important for the Soviet Union because its representatives can verify and control developments of the Comecon countries' military and paramilitary industries, technology, and research. One interviewee, who represented Poland at the meetings with Soviet representatives of the electronics industry, said the Soviets are not ready to accept any technological solutions that are developed in other Comecon countries, even

if the solutions are better than those of the Soviets, for two reasons. First, the superpower "knows everything better" and does not wish to disturb the huge network of Soviet research and development institutes in which many thousands of experts and researchers are engaged. Second, the country that succeeds in developing a technological solution to be approved by the WTO earns the right to be the primary exporter of these goods, and if the "mother-factory" is not Soviet this is quite "inconvenient" for them.

In the 1960s a French Communist who worked in his country's military electronics industry defected to Poland, taking with him complete plans for a special military radio transmitter. Poland soon succeeded in reproducing the technology of this radio transmitter. The transmitter was the best of its kind available to WTO states at that time. The Soviets, having received a report of this information, stalled for time by postponing immediate production of the transmitter in Poland. Within a year they came up with their own proposal—no better than the one advanced by Poland. The Soviets succeeded in mustering the support of the remaining Comecon members for the production of the Soviet transmitter instead of the Polish one.

At a later date Czechoslovakia's representatives introduced a modern radar apparatus that was superior to one designed by the Soviets. The Soviets, however, succeeded in winning approval for the production of their own radar equipment by playing the embittered Poles against the Czechs.

In the late 1940s and early 1950s, Poland enjoyed good relations with the Swedish electronics company, Erickson. Poland received plans that would enable her to produce a very modern central telephone station exchange. The Polish electronics industry representative who managed to conclude the deal with Erickson, Mickiewicz, was arrested and sentenced to death for espionage. The plans for this telephone station were set aside for eight years, after which time the Soviets found out about these plans and asked that all be forwarded to the USSR. On the basis of these plans the Soviets then began their own production of these telephone stations for the military.

These examples are an illustration of the thesis that the military-industrial complex in Poland is developed primarily under the heavy pressure of Soviet demands, concerning what the Poles can or cannot do. The limitations on what can and cannot be done have a political aspect—that is, independence is limited. Enforcing what to do has both economic and political significance. It makes Poland totally dependent on the Soviets, not only militarily but also with respect to the costs and profitability of different kinds of armament investments and the production of military equipment.

The Soviets abused their monopolistic position in the area of armament production in another way; they sent technical documentation to their East European partners only after their factories begin serial production. A Polish expert emphasized that such a form of cooperation is the reason why the Polish military industry is backward compared with that in the USSR. He argued that the Soviets should be ready to share technological and technical information about the new armaments in the production start-up stage in Soviet factories. ¹⁷ Of course, this relates only to information on those kinds of armaments expected to be included in the cooperation program with Polish industry.

The dependence of Polish military industry on the USSR has also influenced planning and development in this area. The unification of these planning methods in the Comecon countries is very convenient for the Soviets, who also dislike organizational changes in the administration of the Polish military industry planning apparatus. It is reasonable to suppose that no serious changes in this area were made in Poland that differed from the Soviet interest. From this point of view the analysis of Polish military-industrial planning can be taken to apply generally to Soviet planning as well.

Although the main functions of various bureaucratic links in Polish and Soviet planning production and procurement of weaponry are similar, there are probably some differences, and only additional detailed research could shed more light on this matter. Present knowledge about the Soviet military-industrial complex, even if its pace and direction of organizational changes is different from Poland's, permits a productive comparison. Several organizational solutions created in the Polish

armament planning production and procurement system may be helpful in providing a more accurate analysis of the Soviet armament decision—making system.

THE POLISH MILITARY COMMAND IN THE PLANNING SYSTEM OF ARMAMENT PRODUCTION AND SUPPLY

Until the early 1970s, the General Staff of the Polish army played a leading role in preparing the armament requirements plan and in executing the supply plan. The modernization of the Polish military and the growing role of Poland and other Soviet bloc states in developing technology in general, and some technological aspects of modern weaponry in particular, induced Moscow to improve the coordination of the Comecon countries' R&D activities as well as the planning and production of armament and military equipment.

From the early 1970s on the USSR made a great effort to utilize all the scientific and technological capabilities of the Comecon countries for its own needs. Special attention was paid to coordinating military R&D activities. Between 1971 and 1976, one-third of the major R&D projects of the Soviet Union were carried out with the participation of other Comecon countries; Poland played a significant role in this area. See Table 1.

Table 1

NUMBER OF R&D INSTITUTES AND R&D WORKERS IN THE USSR,
POLAND, AND THE COMECON, 1970-1975

	R&D Institutes		R&D Workers, Including Universities and Factory Institutes (000)	
Country	1970	1975	1970	1975
USSR Poland Comecon ^c	3442 229 4773	3531 ^a 410 ^b 4951	927.7 39.0 1063.9	1223.4 59.0 1388.2

a1974.

^b1976.

^CWithout East Germany.

The process of cooperation in R&D between the USSR and the other Comecon countries and the rapid modernization of the WTO armies necessitated the creation of the Warsaw Pact Technical Committee. ¹⁹ This in turn, together with the growth in furnishing the Polish army with a huge quantity of modern weapons and equipment, ²⁰ led to the reconstitution of the Polish organizational structure of the military R&D activities and the system of planning and delivering weaponry and military equipment.

In the 1950s, weapons procurement issues were personally supervised by the Chief of Staff, at that time Soviet General Wladyslaw Korczyc. Responsibility was shared by the Mobilization Department and the Department for Planning, Equipment and Organization--Department VII. The functioning of these departments changed very little until the early 1970s. The first head of Department VII, Soviet General Sivicki, was subsequently replaced in 1956 by Polish General E. Pfeffer. At that time the department came under the supervision of the General Staff's Deputy Chief, Polish General Graniewski, who was accountable for planning, developing, and supplying the military's armaments and equipment during both peace and war. After 1967, General Graniewski was replaced by General Zbigniew Nowak, Deputy Chief of the General Staff. In 1977, Gen. Nowak was named Vice-minister of Defense in charge of the Main Inspectorate for Armaments (MIA), and the commanders of all technical supply services of the Polish armed forces were subordinated to General Nowak as his deputies. In this way, the whole system of technical supply planning and procurement was centralized under the control of the Minister of Defense and not, as before, under the supervision of the Chief of the General Staff. General Nowak therefore secured a more independent position with regard to the demands of the General Staff. Some of his deputies are also commanders of the most important technical military services and activities of the Polish Army. One of these deputies, General S. Kalugin, is Deputy Chief of the Warsaw Pact Technical Committee. 21 This link is important for the Soviets, but it is also significant for the command of the Polish Army. Because as Vice-Minister the director of the MIA is directly subordinate to the Minister of Defense, he can control cooperation with the USSR and other WTO countries in planning military R&D and production.

The functions of the following deputies of General Nowak confirm that the MIA has responsibility for the whole area of production and supply of technical products for the Polish army: ²²

- 1. General Wladyslaw Szymlowski is the Chief of Staff of the MIA and continues to hold the position of Commander of Tank and Truck (Vehicle) Services of the Polish army. As the Chief of Staff of MIA, General Szymlowski is the "main coordinator of the military supply of goods and armaments."
- 2. General S. Kalugin is Deputy for Air Force Armament and Deputy Chief of the Warsaw Pact Technical Committee. 23
- 3. General J. Modrzejewski was named Deputy for Armaments Research and Development, but the Chief of Armaments Research and Development of the Polish Army is General Cz. Piotrowski. 24
- 4. General J. Zielinski is Deputy for the Military Repair and Production Factories and commander of this military service.
- 5. General M. Bronowiecki is (presumably) deputy for Armaments of the Territorial Defense Forces. 25

For a greater concentration of the direct control of the Minister of Defense over the whole system of material supply, General Nieczyslaw Obiedzinski, the Head of the Rear Services of the Polish Army, was nominated a Deputy Minister of Defense. The Rear Services are responsible for feeding, clothing, and housing the Polish Army. An independent position with regard to the General Staff and also to the MIA was still enjoyed by the Chief of the Military Group of the CPC (as previously indicated, probably General M. Knast). 27

Initiating and planning functions of the General Staff of the Polish Army remain significant, as recently published Polish sources emphasize. The General Staff's departments are presumably engaged in the conceptual coordination of different kinds of highly sophisticated weaponry, and in initiating their R&D; MIA is responsible for current R&D activities and for armament supply planning and procurement. The General Staff also is responsible for analyzing the direction of Soviet military strategy, which determines Polish military armament planning and supply. Therefore, the Vice-Ministry of Defense (MIA) probably prepares the plan of requirements of weaponry and the military-industrial investments, under the influence of three factors:

- The armaments demands of the WTO Command (the Soviet Army) for Polish Operational Forces, within the framework of militaryindustrial cooperation of the Comecon countries.
- 2. The Polish General Staff (representing the domestic military elite), which is interested in carrying out its own goals and ambitions.
- 3. The military-industrial bureaucracy, represented by the heads of the Military Group of the CPC and the industry departments of the Party Central Committee.

The plan of requirements prepared by the Vice-Ministry of Defense responsible for MIA prefers the point of view of the Polish military elite. The military commanders of the Polish Army view compromise differently than do the managers of Polish economic life--the Party leaders, the CPC and the heads of the industrial ministries. The opinions and suggestions of the industrial bureaucracy cannot be neglected even in the stage of preparation of the plan of requirements. The MIA plan is therefore a double compromise; between the goals of the Soviets and Polish military commanders and between the Polish military elite on one side, and Party and industrial bureaucratic groups in Poland on the other.

The same plan of supply prepared in the CPC under the pressure of the Comecon Military-Industrial Commission fits into the capabilities of the Polish economy and is, of course, different from the goals of the military commanders. The final plan of supply, accepted by KOK, is a compromise between Soviet demands and Polish political-military goals, limited by the economic and internal capabilities and conditions of the country. 31

The most important operational functions in the field of planning and supply of weaponry are probably fulfilled by MIA departments and cannot be very different from the functions previously fulfilled by the General Staff. The supply plan can therefore be analyzed on the basis of the process described in the literature for the General Staff, as well as from my personal knowledge.

The task of the MIA is to prepare the integrated supply plan for the weaponry and combat equipment needs of the whole Polish military. The Rear Services Command plans requirements for food, fuel, furniture, and so on in accordance with the directives of the General Staff. The preliminary plan of requirements must be described in detail. Every kind of weapon and equipment must be allocated to a specific military force with a precise timetable. The plan is prepared in terms of both physical units and a strict financial estimate and is divided into two parts: 33

- 1. Providing the military potential—supplying the military with weapons, equipment, manpower, etc.;
- 2. Developing the military potential—the plan of R&D, the development of military industry and its civilian base, mobilization reserves, etc.

Procurement and R&D are included in the plan with an estimate of the expected costs. The price table for each kind of weapon, equipment, services, R&D and so on is prepared by the Military Group of the CPC. If the plan of requirements includes new models or special testing programs, a financial estimate of these outlays must be given.

From the perspective of time, there are three different supply plans for the Polish Army that are interrelated: a one- or two-year plan, a five-year plan, and a long-range plan. These plans cover the needs of the military in line with the strategic plan prepared by the General Staff, and in accordance with the specific plans of requirements of the different army forces, military districts, civil defense, etc.

The plan of requirements is formulated through lengthy and complicated procedures involving the active participation of the vice ministers of defense, the commanders of the armed forces, the different departments of the General Staff, the commanders of the military districts, and the most important military R&D institutes. As mentioned above, additional and separate plans of needs are prepared by the staff of the Rear Services, the Mobilization Department of the General Staff, the Financial Department of the Ministry of Defense, and the commands of the different military forces. A final integrated plan of needs

must be discussed with and accepted by the Minister of Defense. The outline of the process of preparing such a plan is given in Fig. 2. 35

Every plan of requirements, short or long range, has one or more variations, with a justification for each. The plan suggested as the best must be analyzed from the economic and military points of view. The Minister of Defense must accept this plan of requirements before it becomes the subject of analysis and polemics in other military and civilian bureaucratic groups. The one-year, five-year, and long-range plans of requirements have neither binding force nor legitimacy; they only serve as a basis for the future, accepted supply plan.

Once these plans of requirements are revised and accepted by the CPC, they become "supply plans." These plans are interrelated with the civilian one-year, five-year, and long-range plans. The one-or two- and five-year supply plans have operational importance, just as the civilian plans do. The long-range plan, covering 15 to 25 years, is rather more instructive than operational. Some special programs developed in the military R&D institutes are carried out as long-range projects. 37

The one- or two-year supply plan and the five-year supply plan are coordinated with the mobilization plan. In the Polish war-economic nomenclature, three different time situations are defined for the mobilization plan: the imminent endangering of the state, mobilization, and war. The imminent endangering of the state, mobilization, and war. The each stage different organizational decisions are defined. Although the mobilization plan is prepared in one of the departments of the General Staff, its guide-lines influence the preparation of the plan of requirements and the latter's conversion into a supply plan. For example, if the mobilization plan provides for very large weapon reserves, it can influence the demands of the General Staff for the current supply program.

Once the plan is accepted, each demand of the General Staff for additional weapons, equipment, or other military goods results in serious problems at all levels of the planning enterprises, from the CPC to the planning sections of the ministries, production associations, and factories. In a tightly balanced economy, with little flexibility

	LEVEL	AGENCY
First	GOVERNMENTAL	Supreme Defense Council (KOK) Central Planning Commission and its Military Group Military Industrial Commission
Second		Ministry of Defense General Staft and Main Inspectorate for Armament Industrial Ministries
Third	MANAGERTAL	Military departments of ministries Supply departments of the Ministry of Defense and of the military commands Production associations

- (1) The process of preparing the new Five-Year Supply Plan begins in September, 16 months before the beginning of the Plan period--tor the purpose of this illustrative sketch, January 1, 1981. Hypothetically, then, the process begins in September 1979. It is initiated by the General Staff and the Main Inspectorate for Armament (MIA) in directives to the supply departments of the Ministry of Defense and of the various military commands.
- (2) Proposals for inclusion in the Plan are prepared by: the supply departments of the Ministry of Defense and of the various armed forces commands, in cooperation mainly with the General Staff and the MIA; the industrial ministries, the military departments of these and other ministries, and the production associations, in cooperation with the Military Group of the Central Planning Commission (begins October 1979). Proposals must be approved by the Ministry of Defense.
- (3) A. Between October 1979 and January 1980 the industrial ministries and the military departments of the ministries prepare a single plan-proposal for the Military Group of the Central Planning Commission.
- B. Between October 1979 and February 1980 the supply departments of the Ministry of Defense and of the military commands prepare and coordinate their plan-proposal; this is approved by the General Staff and the MIA in February 1980.
- (4) From January through March the Central Planning Commission and its Military Group integrates the plan-proposals drawn up in step 3 and in April submits the integrated draft to the Military Industrial Commission for discussion.
- (5) April July: The Military Industrial Commission discusses and coordinates the integrated plan-proposal, which is submitted to the MIA and the General Staff.
- (b) July October: The MIA and the General Staff coordinate the last changes of the plan-proposal with the Minister of Defense; the final version is submitted as a formal document to the Minister for signing in October.
- (7) October December: The tinal plan-proposal is discussed by the Defense Council (KOK).
- (8) In December 1980 the plan-proposal is adopted by KOK as a "Supply Plan of the Armed Forces," and in this form it is sent for implementation to each level of the military-industrial complex.

Fig. 2--Hierarchical structure of the Polish military supply planning system and outline of planning process

in production factor reserves, nonplanned investments or alterations in the production programs are sometimes impossible to carry out. Stankiewicz suggested that it is impossible to introduce even a few serious changes into a tightly balanced economic plan that has a tendency toward "inertia resistance" because reserves of production capacities are lacking. In the one-year plan, serious changes can be executed only by using the small special state reserves. The state reserves are divided and maintained according to four economic priorities: (1) as state budget reserves, (2) in hard currencies, (3) as financial reserves for wages and salaries, and (4) as special goods for production and investments. Material reserves are collected on the state level by the Office for State Reserves and by different ministries and production associations—especially machine-building, chemical, and electronic.

As one Polish expert states, "If new needs appear that were not anticipated in the (current) plan, such as an unexpected change in the conditions of the defense of the country, or for any other reason that would seriously alter the plan, these reserves are used."⁴⁰

In the five-year plan more serious modifications are possible, but they require a great deal of effort, additional large outlays, and reduction of the already small production capacities of different civilian sectors of the economy. Such was the case with the Six Year Plan, 1950-1955, when important civilian sectors were sacrificed for the unexpected growth of military industry.

The "inertia resistance" of the centrally planned economy against unexpected demands of the military is strongest in the first year or two of the five-year plan and weakest in the last year. It is more difficult to make serious changes in the actual investments and production capabilities in the first two years of the accepted five-year plan. However, if these demands are submitted in the last year of the five-year plan, they can be more easily incorporated into the new (subsequent) five-year plan. The planning apparatus of the MIA and of the General Staff is well practiced in fighting such resistance to the military's unexpected demands and exaggerated plan of requirements. In trying to break the indisposition of the CPC toward the excessive

demands of the MIA, the military bureaucrats use primarily political arguments. However, General Staff planners frequently use the accepted supply plan for unofficial pressure against the CPC.

After a number of debates with the Military Group of the CPC and with other competent Party and government organs, the "plan of requirements" of the MIA is accepted by KOK (see Fig. 2). From this moment the "plan of requirements" is converted into an official document called the "Military Supply Plan."

After this document is signed by KOK, the MIA and the General Staff change their positions. Instead of being requirements planners, they now become "buyers." For this task there is an immense apparatus of military representatives ($vocnped_{ij}$) subordinate to the different armed commands. The MIA is now simultaneously a future requirements planner and a "buyer" for the accepted armament programs.

As a requirements planner, the MIA is dependent on two offices of the CPC: the Civilian Managerial Council and the Military Group. Such dependence in the process of preparing the plan of requirements is influenced by the limits set by high officials of the Military Group for each kind of military investment and production. As a "buyer," MIA is also dependent on these offices, but to a much lesser extent. The Party and government-accepted supply plan, especially because of its privileged and priority characteristics, gives the buyer a strong position in the Soviet-model economic system. He becomes the decisionmaker governing the supply and distribution of many scarce raw materials, machines, manpower, testing facilities, and goods or services used in producing military equipment and armaments. The MIA can use its position as a buyer through different military force commands and through the voenpredy to blackmail the industrial or planning authorities and win additional concessions in the process of preparing the supply plan. 41 But these kinds of pressure can be productive only in areas of secondary importance in military production planning: for example, for required materials or imported machines or factories in which the machines are to be installed, or the products manufactured. It is, however, impossible to ask for serious changes in construction plans, or in the quality or quantity of armament production, unless the CPC provides a written acceptance.

As mentioned above, the military supply plan has both a physical and a financial framework. Each demand for changes in military outlays must be assessed by the Ministry of Finance and approved by KOK. No entity of the CPC or the industrial ministries can execute a serious demand of the MIA without approved financial resources, which are allocated in a very detailed financial document.

In the 1960s, the procedure of preparing the Polish military budget was as follows. The proposal for the budget was prepared by the Financial Commission of the Polish Military General Staff. The members of this Commission were:

- 1. The Deputy Chief of the Military Department of the Central Planning Commission
- 2. Two deputy chiefs of the Department for Planning Equipment and Organization (now changed to the MIA)
 - (a) The Deputy Chief for Investments Budget
 - (b) The Deputy Chief for Personnel Budget
- 3. The Chiefs of the Planning Departments of the General Staff and the various military forces.

The military budget-proposal was divided into three main sections and a large number of subsections. The first section estimated the financial outlays for armament and equipment that could be produced in Poland. This estimate was based on information delivered by the Military Group of the CPC and by the military departments of the industrial ministries, which was submitted in both physical and financial units (prices). The second section dealt with imported military goods (armament, equipment, machines). It was prepared by the Military Group of the CPC in cooperation with the Military Department of the Ministry for Foreign Trade. The third section estimated the financial outlays for R&D. Each section was divided into subsections.

The military budget-proposal was discussed in a number of meetings, usually over a period of about half a year. A completed budget-proposal was sent to the Minister of Defense, who discussed it with his deputies, and approved it for submission to KOK. Following their first meeting,

additional budgetary details were sometimes delivered to the Minister of Defense or to the Deputy Chief of the General Staff. After approval by KOK, a specially prepared budget-proposal was submitted to the Parliament for its formal approval. Once the budget was accepted by KOK it was not possible to make any changes in any budgetary total or to move financial resources from one section or subsection to another.

The "watchdog" over the financial outlays of the military was the Financial Department of the Ministry of Defense, which operates in close cooperation with the Military Department of the Financial Ministry and the State Bank. If the General Staff or one of the military commands needed an unexpected, urgent change in the financial outlay of the approved budget, it could be done only after approval by the Military Group of the Central Planning Commission, or (for most important budget changes) by KOK. 42

Such strong control by different supervisors over the planning activity and procurements of MIA constrains this body from making unexpected and sudden changes in the military supply plan. For this reason, in the last 10 to 15 years, both Poland and the USSR have devoted great efforts to developing scientific forecasting methods in the area of military strategy and modern weaponry, and even in international political-military relations. 43 On the basis of this kind of research. the Polish General Staff wants to influence the long-range R&D and industrial planning of the CPC. A Polish economist states that every industry is not of equal importance for future armament systems. Only military strategy and military doctrine can be a basis for deciding what kind of R&D and what branch of modern industry will be most effective in producing the armaments of the future. 44 The CPC is obligated to make its decisions in such a way that what is selected by the military branches will be developed first. 45 But the dependence on Soviet weaponry planning makes this task very complicated in Poland. Also, because Polish military doctrine is in fact an offshoot of Soviet military thinking, it can be said that the General Staff of the Soviet Army influences the direction and structure of Polish industry as a whole.

THE MILITARY GROUP OF THE CENTRAL PLANNING COMMISSION

The Military Group of the CPC was organized at the end of the 1940s and beginning of the 1950s. The first Chief was Col. Grabczynski, a prewar Polish colonel who spent the war years in the Soviet Union. In 1949 Colonel Grabczynski was arrested by direct command from Moscow. He was replaced by a Polish communist, Topolski, who later served as a minister in the Polish government. In 1951 Topolski was succeeded by General Piotr Jaroszewicz, who later became Prime Minister. Jaroszewicz's position was filled by Soviet General Polturzycki in 1952. Approximately five years later Polturzycki was replaced by Polish General Marian Waluchowski, who served until his death at the end of the 1960s.

Each of these chiefs simultaneously held one of the deputy chairmanships of the CPC, having been assigned on the basis of the Party's policy of nomenklatura for highest ranking officials. The Deputy Chairman was therefore independent of the CPC chairman and of the military commanders. 48 Other high officials in the Military Group were nominated by the cadre department of the Party's Central Committee. Nomination was determined on the basis of proposals made by the Central Committee's Administration Department, which oversees the military and security service cadres and other specific secret aspects of government and Party activity. The Administration Department maintains direct contact with the Party Secretary responsible for the military and security service, as well as with the appropriate department in the Soviet Party Central Committee. Kazimierz Witaszewski, the former head of the Polish Central Committee Administrative Department, was appointed at the end of the 1950s under direct pressure from Soviet leaders. It was well known that Witaszewski was beyond the control of his Polish superiors and had special ties to the CPSU Administrative Department as well as with the East European Department of the KGB. In this manner, Moscow exercises control over the personnel policy of Poland's military and security service and over the process of nominating the Military Group's highest ranking officials. 49

Since its inception the Military Group has had two main departments. The largest and most important is responsible for current armaments and equipment production and for military-industrial investment. The second is the Mobilization Department, which until the early 1960s was very small. However, when Poland began to prepare the country and the armed forces for an atomic war, this department was enlarged.

The Mobilization Department carries out contingency plans for Poland's entire economy in the event of war. At regular intervals it is mandated to alter the wartime conversion program according to various industries' rates of development and in accordance with the current military strategy. For this reason the CPC Mobilization Department receives information through two different channels: The CPC, which oversees everything connected with the development of the national economy and society, and the General Staff's Mobilization Department. This latter channel acts on the basis of the military doctrine and strategy approved by KOK, the highest defense policy body in Poland. In the 1960s and early 1970s, when the activities of the CPC's Mobilization Department grew in importance, its head was Borys Androsiuk, a civilian dedicated to the USSR. In basic outline, this department has undergone no serious changes in personnel since its inception, largely for security reasons.

The Mobilization Department is responsible for a detailed plan encompassing all Polish ministries and regions. It is divided into functional, regional, and departmental sections, all of which operate according to specific deadlines. Military departments in which mobilization sections are included exist in each ministry and local government organ. In addition, one of the vice-ministers in every ministry is responsible for the activities of both the current armament production department and the mobilization section, which are parts of the military departments of the ministries. For example, in the Ministry of Education, the Mobilization Section of the Military Department drafts plans for the use of school buildings and equipment in case of mass evacuation and provides for continuing education in the event of war. The Ministries of Health, Communications, etc., have similar plans.

The mobilization sections of the industrial ministries' military departments act in coordination with the CPC's Mobilization Department. They are instructed to arrange specific mobilization plans for each factory and enterprise operating within different ministries. The

substantive aspect of these plans includes the preparation of reserves of raw materials and unfinished goods, the building of air-raid shelters, the underground construction of certain parts of the factories, and so forth. The organizational aspect encompasses anticipated changes in the production program and in the managerial system and handles other activities that must be carried out immediately after the mobilization order is received.

Another important type of activity is the compiling of a list of factories that could collaborate on the preparation of armaments and military equipment after civilian production programs are curtailed during the mobilization period. The Mobilization Department must also known which factories can take on the functions of those that may be destroyed and which can fulfill a leading role in the production process for the new wartime programs. These lists and programs, of course, are subject to constant revision. The mobilization plans are sent to the factories as top secret documents. The system of mobilization activities at the factories is designed on the basis of Soviet experience and demands that were first imposed under the pressure of Soviet advisors in the 1950s. With few changes, this system is used to this day.

Each factory contains a "special section" that is responsible for keeping factory production secret and for supervising the activities of workers from the point of view of security. These "special sections" also receive the secret mobilization documents. They are responsible for determining which workers will remain at the factory if war breaks out and which will be relocated in other industries or inducted into the military. Other parts of the factory's mobilization documents, such as the program for reserve production capabilities and reserve raw materials, are sent to the factory director, who chooses a small group of experts subject to the approval of the "special section." Normally these few (two to five) people have access to all information concerning the mobilization plans; they are responsible for the preparation of every aspect of the plan, substantively and organizationally. An interviewee informed me that in the military-industrial factories of the 1960s, there was no preparation of special machine reserves. Other sources stated that such reserves are indeed on hand. 52 All

these sources agreed that because the planned and the fulfilled military-production programs were very often different, and changed each year, a high percentage of factory production capacity was unused. 53 These machines were kept in reserve for any eventual crisis. Another aspect of the activities of the mobilization channel is to disperse the stockpiles of raw materials and energy supplies, to prepare specific transportation plans, and so forth.

In summary, the mobilization plan is initiated by the General Staff and is sent on to the Mobilization Department of the Planning Commission, which "translates" the General Staff's instructions into economic activity for each lower economic unit. After elaboration, the plan is sent from the CPC to the mobilization sections of the military departments of the ministries for more detailed development. From the ministries the plan is sent down to the production associations and various factories. The expenditures for realization of this mobilization program are included in the factory or ministry's regular outlays and only in extreme instances are provided for by a special government fund.

As already noted, the role of the Military Group in its current planning function is to act as a buffer between the MIA and the General Staff on one side, and the CPC on the other. In other words, the Military Group acts as a mediator between the maximal demands of military commanders and the capabilities of the national economy as determined by the Civilian Managerial Council of the CPC. From this point of view, the Military Group is in permanent conflict with the Defense Vice-Minister responsible for MIA activity.

The Chief of the Military Group is subordinate to the Chairman of the CPC and to the Prime Minister. He is also in regular contact with the Central Committee Party Secretary responsible to the Politburo for military industry and military affairs. The Chief of the Military Group is also in touch with the chiefs of the Military Industry Section and the Administration Department of the Party Central Committee. According to some interviewees, the relations between the Chief of the Military Group and the Party Politburo are deep and long-standing. Very often he wrote reports, analyses, and references for the Party

First Secretary, which were a basis for the debates in the Politburo and in KOK. In operational questions of planning military production, the Chief of the Military Group was the most powerful and competent person in the hierarchy. Note that the issue here is planning; operational questions of industrial development and weapon acquisition are discussed in the different ministries and in the Military-Industrial Commission.

These many-sided interrelations within the high level economic decisionmaking group give the Chief of the Military Group a strong position with regard to the MIA on the one hand, and to the Chairman of the CPC and the whole economic apparatus on the other.

The central position of the Chief of the Military Group in the military industry decisionmaking system also stems from the extensive apparatus operating under his authority in all ministries and in the planning apparatus of the districts, cities, and factories. At each level of this huge civilian planning apparatus a military section exists. This military-industrial (or war-economic) network of bureaucrats functions as an instrument of controlling and verifying all aspects of economic planning, in accordance with the military needs of the Supply Plan.

The Military Group's current department has the same structure as the Central Planning Commission, but on smaller scale. There is a military section in almost all departments and sections of the CPC, and all these sections constitute separate parts of the Military Group. For example, if the CPC had 20 departments then the Military Group also had 20 sections for exactly the same areas and functions (see Fig. 3). These sections cooperate with the civilian branches and divisions of the CPC, both in preparing the plans and in executing them once they have been accepted. The military sections also participate in the activity of the functional divisions in determining policies on prices, labor and wages, reserves of raw materials and energy, finance and money, foreign trade, technology imports, cooperation with Comecon and other countries, etc. In this way the Chief of the Military Group can control or at least influence all decisions made by the departments of the CPC.

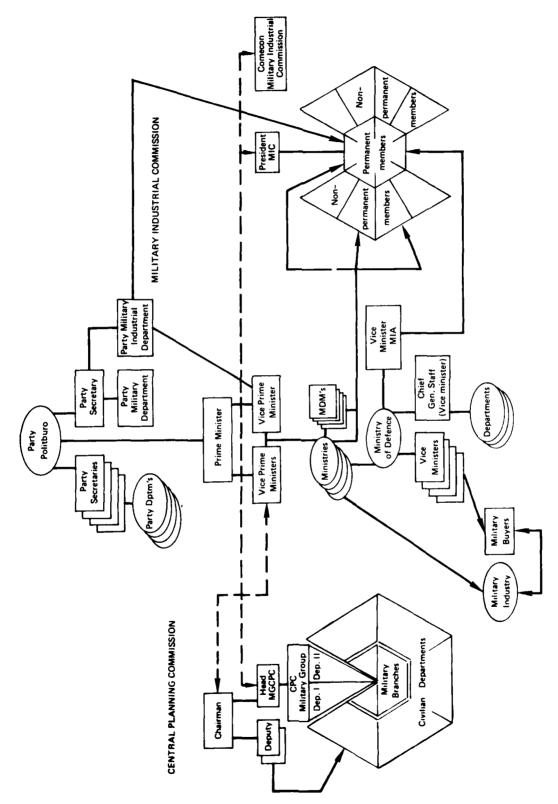


Fig. 3--Organization of the armament decisionmaking system in Poland

In addition to his influential position in the apparatus of the CPC, the Chief of the Military Group can also follow up on this advantage through the military links subject to his control, which exist on each level of the planning apparatus of the industrial and other ministries, in the districts, cities, and so on.

This position of the Military Group is used to execute the two most important tasks of military-industrial planning:

- To formulate the military production and development program as a part of the one-year, five-year, and long-range plans of the country;
- 2. To influence the plan of requirements of the MIA in such a way that the most important military strategic goals will be fulfilled without slackening the pace of the economic growth of the country.

Transforming the plan of requirements of the MIA into a realistic program is primarily a problem of fully coordinating all military and civilian tasks in light of the economic and intellectual possibilities of the country. Converting the plan of the military into a workable program also depends to a great extent upon whether the military strategic plan is, or will be, developed in accordance with Poland's economic, industrial, and technical capabilities.

As described above, the Military Group's influence on military strategic planning is effective in the stage of "bargaining," when the plan of requirements is not yet changed into the "supply plan." From the moment KOK accepts the plan, the Military Group begins to act as a military "policeman." This means that priority must be given to the military production plans in each factory, production association, and ministry in accordance with the CPC's instructions. This priority is one of the reasons mentioned for the permanent lack of consumer goods and the very slow rate of progress in this sector throughout the Warsaw Pact states.

Resolving the conflicting demands of the Military Group and the Civilian Managerial Council of the CPC generally involves cutting back severely on important civilian goods, while trimming military demands only slightly. GNP, however, is divided not only between military "consumption" (e.g., tanks, guns, aircraft, naval vessels) and civilian consumer goods, but also between investments designed to expand basic

productive capacity (steel mills, heavy industry, machines, etc.) and investments in plants producing armaments. When a conflict arises as to the allocation of investment resources, the Civilian Managerial Council of the CPC is much stronger than the CPC's Military Group. The former will argue that to give up some of its investments for the benefit of the military program will probably jeopardize the future development of the national economy. As a Polish expert noted, "There are objective limitations to the part of the GNP devoted to defense goals. Neglect of these limitations can negatively influence the pace of development of production capacity and, as a consequence, can diminish the defense potential (of the country)." 54

The most complicated problem is determining the location of the resource allocation "red line," which cannot be crossed. Only the Party Politburo and KOK have the power to resolve how to divide the GNP. The basis for this decision is not only the current production of the national economy but also the forecast of the development of all economic, social, and political factors: 55 expected economic growth, international trade relations, credit possibilities from abroad, balance of payments, the internal and international political situation, and so on. These factors are analyzed by different ministries, Party departments, Central Committee and special research institutes and experts, and are discussed at the highest level of the economic and political decisionmaking system. But among all these bureaucratic groups, the Military Group's opinion is the most important factor influencing the final decision of the KOK/Party Politburo.

THE MILITARY DEPARTMENTS WITHIN THE MINISTRIES

There is not a single ministry in Poland without a military department whose task is to control the military programs at all levels of execution in the ministry; its establishments and enterprises; and its services, production, and research facilities. The military department must also coordinate all military and civilian programs put into effect in the ministry and in its different enterprises.

One of the most important duties of the ministry military department is to coordinate the civilian and military plans of the ministry in accordance with the instructions of the MIA and the $\mbox{CPC}^{\dagger} \mbox{s}$ Military Group.

Each ministry military department contains a special mobilization section, whose role was described above. The most important task falls upon the current production (and current services) division, which must resolve conflicts arising between the civilian and the military production plans, and between the factories and the "military buyers" pertaining to the quality or timetable of production, supply, etc. Sometimes the ministry military department must find a way to meet civilian needs by using the military production facilities or services controlled by the ministry. It might impose requirements upon the educational, health, or transportation systems or channel production or investments to this end. For example, watches, radios, refrigerators, and other products are produced from some armament waste materials or production reserves kept mainly for wartime.

In principle, all civilian programs for producing goods must include military elements. All research work as well must fit in with the demands of the military department of the ministry. For example, factories producing pots must be ready to prepare artillery cartridges; buses must be constructed so that the back wall can be opened, enabling the transportation of wounded persons or heavy loads. The ministry military department must be sure that each plan of development will also include specific military aspects. A high official from the Polish CPC's Military Group mentioned the following preferences, important for defense planning: ⁵⁶

- 1. Industrial branches that are important for the rapid development of modern weapons and for their mass production
- 2. The renovation and modernization of machine parts and production arrangements that sorve both civilian and military needs
- 3. The unification and standardization of equipment, parts of different machines, transportation means, instruments, and other arrangements of the civilian enterprises, so as to permit their use for producing civilian goods, as well as for mass a lament and military equipment production.

The ministry military department also serves as the long arm of the MIA and the General Staff and the CPC's Military Group in all areas

of activity of their ministry. The duties of its heads vary from ministry to ministry. The ministry military department plays a more important role in the Polish Machine Industry Ministry than in the Ministry of Agriculture or the Chemical Industry. Its head is also a permanent member of the Military-Industrial Commission. The opinion of the military department of this ministry carries great weight whenever production programs are evaluated by the MIA or by the CPC's Military Group. Within the complex of ministries, the Ministry for Machine Industry fulfills the role of "central correlator" for the rest of the industrial ministries. The one- and five-year plans of cooperation among enterprises subordinate to different ministries are first prepared in the Ministry of Machine Industry and then are fitted to the capabilities of other ministries and enterprises. But if a new weapon system must be urgently developed and produced on a mass scale, the ministry with the leading role in preparing this weapon takes over the role of "central correlator" of the military production plan.

No ministry--including the most militarized in Poland, the Ministry of Machine Industry--wants maximum utilization of its enterprise's productive capacity. That would be very dangerous for the ministry and would not be countenanced by its decisionmakers. A tight, inflexible plan can even be harmful to the status and the livelihood of both the managerial groups and the workers in the establishments and enterprises subordinate to the ministry. The attitude of the ministry toward the military production plan cannot be changed by the nomination of its minister to membership in the Party Central Committee, or by the loyal and "patriotic" attitude of the minister. The ministry military department exists to ensure that the production capabilities of the ministry's factories are used for military goals. It is, of course, the raison d'etre for the ministry's military departments, which are an instrument of pressure subordinated to the goals of the CPC's Military Group and the MIA. The importance of the ministry military department can be better understood if one distinguishes between selling by the ministry and its enterprises and buying by the ministry military department. Although the first are producers and "salesmen," the military departments of the industrial ministries are not the buyers; that is the

function of the *voenpredy* in the factory. But the ministry military department must uphold the interests of the military in all situations where the *voenpredy* conflict with the managers of the industrial plants.

If these conflicts cannot be settled on a lower level, they must be resolved in negotiations between the ministry military department and the heads of the ministry. In such negotiations the ministry military department acts in close contact with the Military Group of the CPC and with the MIA. Conflicts that cannot be ironed out on the ministry level are handed over to the Military Industrial Commission or to the Central Committee Party Secretary responsible for military industry. The personnel of the ministry military department are formally subordinate to their particular minister. But, as indicated earlier, the operational supervisor is one of the vice-ministers. Salaries are paid from ministry budgets in accordance with the "salary table" of the Ministry of Defense (salary varies with military rank, position, and function). Those of the ministry includes the outlays for military department salaries in the total costs of the production and services sold in the current year to the Ministry of Defense.

THE "MILITARY BUYERS" IN THE POLISH WEAPONS PROCUREMENT PROCESS

The *voenpredy* act in Poland in each factory that produces goods for the military, primarily in enterprises where weapons and military equipment are the finished products. But they are also the "buyers" of raw materials and semi-manufactured goods used for military construction (cement, brick, and wood), motors and engines, instruments, medical equipment, food, and all other products used directly for the military, or for continuing the production process in military-industrial factories.

The *voenpredy* begin their work in industrial plants through three channels:

- l. After completing the Higher Officer School of the Rear Services in Poznan $\ \ \,$
- 2. After completing the Military-Technical Academy in Bemovo (a suburb of Warsaw)
 - 3. From the engineering units of the Polish Army.

A small number of *voenpredy* are civilians who, for different reasons, are suitable for this task: experts, retired officers, etc. The *voenpredy* function in groups: two or three persons in a small enterprise, ten or more in a big armaments plant. Each *voenpred* has his own control number, which he must stamp on documents to confirm the "purchase" of products from the plant directly for the military, or for another plant where the production process is continued for the military. Each group of *voenpredy* acts under a head, who is responsible for assuring the quality of all products from the plant and maintaining a strict timetable for the goods received and for the planned production of military equipment and armaments in "his" factory.

In addition, the mobilization section of the ministry military department can use the *voenpredy* to secure the ordered mobilization reserves of raw materials and semifinished products. In special industrial plants the *voenpredy* must also check the readiness of the mobilization production capacity and supervise those parts of the factory that must be built underground or according to special specifications to protect the plant from atomic war. ⁵⁸

The head of a large group of *voenpredy* is an experienced engineer, ordinarily a high ranking officer. The *voenpredy*, both officers and civilians, are subordinate to different military commands. Every commander of the Polish Military Forces has a deputy who is responsible for supplying the military units with the planned quantity of weapons and equipment. However, food, clothing, and housing are under the authority of the Head of the Rear Services, directly subordinate to the commander of each military force.

Like the Polish military forces, the *voenpredy* are divided into service groups: army, air, navy, artillery and missiles, vehicles and tanks, buildings, civil-defense and rear-services. The heads of the supply services of each military command are also the commanders of the *voenpredy*, a functional link that helps to ensure the satisfactory fulfillment of the supply plan. The commander over all *voenpredy* is the Chief of MIA.

The deputies of each service commander can make demands and give instructions directly to the *voenpredy* in the industrial plants.

productive associations, or institutes, ensuring that these entities will adhere to a strict timetable for supplying the military forces according to approved annual and five-year supply plans. This ensures the acquisition of tactical and strategic reserves of the military and thereby avoids serious disruptions.

The supply departments of the commands of the different military forces are in permanent contact with the relevant departments of the MIA on the one side and with the military departments of the industrial ministries on the other. The supply departments of the military forces are linked through the MIA with the Military Group of the CPC, a relationship that facilitates the preparation of the plan of needs as well as the execution of the supply plan.

Every partner in the triangle is connected to the most important components of the armament industry from a different angle. The supply departments of the different military forces maintain this contact directly, through the *voenpredy* subordinate to them. The ministry military departments have their link through the departments of the MIA and through industrial ministries, and the MIA has its contacts with the industrial plants as the commander of all *voenpredy*.

The ministry military department tries to be on good terms with the bureaucracy of its industrial ministry and can try to influence the *voenpredy* in a direction contrary to the interests of the military buyers. However, it must be an instrument to uphold the interests and needs of the military as they are presented by the Military Group of the CPC, and not by commands of different military forces.

The ministry military department's independence from the demands of the Polish Army commands is a precondition for the efficient execution of the military supply plan in all its aspects. That independence also enables it to play a more impartial role when decisions must be made by the industrial ministries, should disturbances occur in the production of important military or civilian goods or investments.

The appointment of each *voenpred*, civilian or military, must be approved by the military counterintelligence unit. The *voenpredy* are, however, under the control of the "special section," the civilian security service cell in each enterprise.

The two-pronged responsibility of the civilian and military security services in the industrial plants where *voenpredy* are present, fortifies police control over the military-industrial factories. Such a situation is inconvenient for the plant managers, who are interested in conciliating the *voenpredy* regarding the current production plan, the supply time-table, the quality of the production, the use of military raw material reserves, and so on.

The relations of the industry managers and the Party cell secretaries with the *voenpredy* are constantly under the observation of the civilian security service network in the industrial plants. This quiet presence has great psychological importance for preventing illegal ways of overcoming any production, economic, or financial difficulties in the factory. The civilian security service network, together with heads of the factory "special section," however, are sometimes accomplices to infractions of official instructions: They may close their eyes if the civilian production or the quality is occasionally not on the level of the military's very high standards. Such complicity reflects the fact that a part of the salaries of all these groups depends on the factory's fulfilling its different production plans.

The voenpredy obtain their salaries from the ministries under which the factories function. But these salaries, like those of ministry military department officials, are included in the final costs of military production, and in such a way the Ministry of Defense "pays back" these outlays. The industrial managers have no influence over these salaries, which are regulated and decided by the military commands. The industrial managers try to buy the favor of voenpredy in other ways with different rewards and goodwill (summer holidays, gifts). In those cases, the factory "special section" is an official enemy of the voenpredy.

NOTES TO SECTION II

- 1. Nowe Drogi, No. 8 (351), 1978, pp. 127-128; Stanislaw Ciaston, Ekonomiczne aspekty obronnosci (Economic Aspects of Defense), Warsaw, Ministry of Defense Publishing House, 1969, p. 68; Janusz Bobrejczuk and Jerzy Grzegorzewski, Polski przemysl lotniczy 1945-1973 (The Polish Aircraft Industry 1945-1973), Warsaw, Ministry of Defense Publishing House, 1974, Chapter 1; Wladyslaw Mis, "Przemysl polski w sluzbie Sil Zbrojnych w latach 1944-1946" (Polish Industry in the Service of the Armed Forces in the Years 1944-1946), in "Potencjal wojenno-ekonomiczny," Zeszyty Naukowe WAP, No. 99, Warsaw, Military-Political Academy Publishing House, 1979, pp. 199-204.
 - 2. Mis, 1979, p. 203.
- 3. Leszek Grot, "Ludowe Wojski Polskie w latach 1949-1960" (The Polish Peoples Army in the Years 1949-1960), Wojskowy Przeglad Historyczny (hereafter, WPH), 1976, No. 1 pp. 23-24; Ciaston, 1969, p. 68.
- 4. In comparison with the prewar period, military industry used six times the number of machines and five times the production area. Grot, 1976, p. 24; Stanislaw Gac, "Powstanie i rozwoj wewnetrznego systemu obrony PRL" (The Build-up and Development of Poland's Internal Defense System), WPH, No. 2 (76), 1976, p. 96; Interview with a Polish high official.
- 5. Ciaston's book was based on these secret analyses. While in Poland, I read this in the secret annex of Ciaston's dissertation.
- 6. The problem of qualified manpower at each technological turning point has been typical of the USSR throughout its history. Although the Soviet Union employed 33 times as many engineers in the 1970s as the United States, and turned out roughly five times as many new engineers as U.S. universities graduated, shortages of manpower continue in the area of new technologies in Soviet factories. TSSU, Narodnee khoziaistvo SSSR v 1975 godu, (The National Economy of the USSR in 1975), Moscow, 1976, p. 156. A U.S. aircraft expert says, for example, that Soviet airplane technology suffers because Soviet engineers in general

are thought to receive narrow, overspecialized training, and the military gets the best production factors first. "Russian Know-How," The Wall Street Journal, March 25, 1980, p. 1. For the prewar period, see B. L. Vannikov, "Oboronnaia promyshlennost' SSR nakanune voiny" (The Defense Industry of the USSR on the Eve of the War), Voprosy istorii, 1969, No. 1, pp. 127-128. I used my interviews for the Polish experience.

- 7. In Polish, *Przedstawiciele Wojskowi*; but Polish professionals used the Russian acronym *voenpredy*.
 - 8. Ciaston, 1969, pp. 67-68; my interviews.
- 9. Edward Sitek, Ekonomika a obronnose (The Economy and Defense), Warsaw, Ministry of Defense Publishing House, 1970; Ciaston, 1969; Waclaw Stankiewicz, Ekonomika Wojenna (War Economy), Warsaw, Ministry of Defense Publishing House, 1970; Boleslaw Chocha, Obrona Terytorium Kraju (Territorial Defense), Warsaw, Ministry of Defense Publishing House, 1974, pp. 52ff. General Chocha is the Commander of the General Staff Military Academy in Poland.
- 10. Dziennik Ustaw PRL (The Government Gazette of Poland), 1967, No. 44, November 29, 1967.
- 11. Waclaw Stankiewicz, *Planowanie obronne* (Defense Planning), Warsaw, Ministry of Defense Publishing House, 1977, p. 72.
- 12. Ibid.; Stankiewicz, Ekonomika Wojenna, pp. 549ff.; Mala Encyklopedia Wojskowa, Vol. 2, p. 367.
- 13. In this context I discuss the role of the local military and the civil defense staffs only as part of the military-industrial decisionmaking system. A more detailed description of the role of these two military bodies would require a separate study.
- 14. Michael Checinski, "Ludowe Wojsko Polskie przed i po marcu 1968" (The Polish Army Before and After March 1968), Zeszyty Historyczne Kultury (Paris), 1978, No. 44.
- 15. An official document that confirms the existence of the Military Industrial Commission of the Comecon is contained in a recently published book, Czarna ksiega cenzury (Black Book of Polish Censorship), London, ANEKS, 1977, p. 31.

- 16. Groups of experts are collected sometimes ad hoc and sometimes as permanent bodies. They resolve specific technological or economic problems in the framework of cooperation between the USSR and other Soviet bloc states.
 - 17. Ciaston, 1969, pp. 137-138.
- 18. B. G. Diakin, L. Y. Lukin, and V. A. Prokudin, Sotrudnichestvo stran chlenov SEV v oblasti nauki i tekhniki (The Cooperation of the CMEA Countries in the Field of Science and Technology), Moscow Ekonomika, 1978, p. 11.
- 19. Soviet sources define the role of the Warsaw Pact Technical Committee as unification of military-technological policy, helping to create new kinds of weaponry, and coordination of the efforts of the WTO armies in the area of R&D. General-Maior M. Titov, "Nadezhnyi oplot sotsializma" (The Reliable Foundation of Socialism), Krasnaia zvezda, January 8, 1979, p. 3. See also Sovetskaia voennaia entsiklopediia, Vol. 2, Moscow, 1976, p. 21; A. Ross Johnson, Soviet-East European Military Relations: An Overview, The Rand Corporation, P-5383-1, 1977, pp. 16, 21.
- 20. Hutchings noted that the East European countries usually receive new Soviet weapons about a decade after their appearance in the USSR. However, "it has been rumored that specially designated Polish, Czechoslovak and East German units, equipped with the most modern weapons in their inventories and maintained at the highest state of combat readiness, have been employed alongside first-line Soviet divisions in Warsaw Pact manoeuvers." Hutchings, 1980, p. 4.
- 21. WPH, 1979, No. 1, p. 327; Zolniers Wolnosci (Soldier of Liberty) (Warsaw), January 19, 1979.
- 22. Unless otherwise indicated, the following is based on information from Polish newspapers and journals.
 - 23. WPH, 1979, No. 1, p. 327; and 1977, No. 3, p. 318.
 - 24. WPH, 1977, No. 3, p. 318.
- 25. The role of General Bronowiecki is not explained in Polish official sources, but he is mentioned as a participant in preparation of the supply system for the Territorial Defense Forces (Polish: Wo,jska Obrony Terytorium Kraju). Bronowiecki was also known as an expert on intelligence

technology and as high ranking officer of Department II of the Polish General Staff (military intelligence service). WPH, 1978, No. 2, p. 343; Mieczyslaw Obiedzinski, Opowiadanie nie dokonczone (An Unfinished Story), Warsaw, Ministry of Defense Publishing House, 1978, p. 321.

- 26. WPH, 1978, No. 3, p. 374.
- 27. WPH, 1978, No. 3, p. 378 and 1979, No. 1, p. 326.
- 28. Waclaw Stankiewicz, *Planowanie obronne* (Defense Planning), Warsaw, Ministry of Defense Publishing House, 1977; Antoni Rogucki, *Analiza systemow w planowaniu obronnym* (An Analysis of Defense Planning Systems), Warsaw, Ministry of Defense Publishing House, 1975.
- 29. Stankiewicz, *Planowanie obronne*, Chs. 3 and 4, pp. 97-202; Sitek, 1970, pp. 114-131; General-maior M. Cherednichenko, "Ekonomika i voennotekhnicheskaia politika" (Economics and Military Technical Policy), *Kommunist vooruzhennykh sil*, 1968, No. 15, p. 15; *Sovetskaia voennaia entsiklopediia*, Vol. 5, Moscow, Voenizdat, 1978, pp. 295-296.
- 30. Stankiewicz, *Planowanie obronne*, pp. 53-61; Michael Checinski, "The Armament Administration of Soviet Bloc States; Organization and Function," *Sonderveröffentlichung des Bundesinstitut für ostwissenschaftliche und internationale Studien*, Cologne, April 1979.
 - 31. Stankiewicz, Planowanie obronne, pp. 62-63.
- 32. Stankiewicz, *Planowanie obronne*, pp. 146-153; Rogucki, 1975, pp. 60-68; Obiedzinski, 1978, pp. 322-324.
- 33. The process of preparing the plan of requirements is described in a more detailed manner by Stankiewicz and Rogucki. This very interesting and complicated aspect of the WTO countries' military-economic planning will be analyzed in more detail in a separate paper.
- 34. In the stage of preparing the list of requirements, the conflicts among different military forces about "what is more important" are sometimes very serious. Probably this was one of the reasons that General Novak was appointed Vice-Minister of Defense, with the function of "main coordinator of military supply."
 - 35. Adapted from Stankiewicz, Planowanie obronne, p. 168.
 - 36. *Ibid*.; Rogucki, 1975.
 - 37. Cherednichenko, 1968, pp. 15-16.

- 38. This definition is found in Stankiewicz, Ekonomika Wojenna, p. 555; and the same author's Planowanie Obronne, p. 72. I am familiar with Polish mobilization planning from the time I worked in the Institute of War Economy in the Military Academy in Warsaw. A Polish defense economist emphasized that "the capacity to carry out the mobilization of the economy in secrecy is one of the highest qualities of defense planning," Stankiewicz, Planowanie obronne, p. 188. For the Soviet experience see S. Spirin and A. Titov, "Sotsialisticheskoe planirovanie i oborona strany" (Socialist Planning and the National Defense), Kommunist vooruzhennykh sil, 1971, No. 4, p. 43.
- 39. Stankiewicz, *Planowanie obronne*, pp. 148ff, 172. In his memoirs, a high-ranking Soviet expert also wrote about "inertia resistance" in Soviet military industry. Vannikov, *Voprosy istorii*, 1968, No. 10, p. 123.
 - 40. Stankiewicz, Planowanie obronne, p. 181.
- 41. "Good Relations" with the *voenpredy* for the whole military-industrial bureaucracy are very important. A tacit agreement with the *voenpredy* enabled the producers to ignore an order by Stalin with regard to producing submachine guns. To take such a risk was not simple. See B. L. Vannikov, "Oboronnaia promyshlennost' SSSR nakanie voiny" (The Defense Industry of the USSR on the Eve of the War), *Voprosy istorii*, 1969, No. 1, p. 123.
- 42. See also in this matter Marian Koch (ed.), Ekonomika wo.jskowa (The Military Economy), Warsaw, Ministry of Defense Publishing House, 1979, subchapter 7: "Planowanie budzetu MON" (The Budget Planning of the Ministry of Defense), pp. 128-132.
- 43. V. K. Konoplev, Nauchnoe predvidenie v voennom dele (Scientific Forecasting in Military Affairs), Moscow, 1974; Iu. Solnyshkov, Ekonomicheski faktory i voorushenie, Moscow, 1973; E. Nikitin, B. Kanevskii, "Problemy oboronosposobnosti strany i boevoi gotovnosti Sovetskikh voorushennykh sil v voennoi politike KPSS" (Problems of the Defense Capability and Military Preparedness of the Soviet Armed Forces in the Military Policy of the CPSU), Voenno-istoricheskii zhurnal, 1979, No. 9, p. 8; Stankiewicz, Planowanie obronne, pp. 84-86, 157; M. Cherednichenko, "Modern War and Economics," in Selected Soviet Military

Writings 1970-1975, translated and published under the auspices of the U.S. Air Force, Washington, D.C., 1977, p. 51; Antoni Rogucki, "Teoria potencjalu wojenno-ekonomicznego a poczatki 'teorii' napiec politycznomilitarnych i odprezenia" (The Theory of Military-Economic Potential and the Beginning of the "Theory" of Political-Military Tensions and Detente) in "Potencjal wojenno-ekonomiczny," Zeszyty Naukowe WAP, Military-Political Academy Publishing House, Warsaw 1979, No. 99, pp. 3-24.

- 44. Stankiewicz, Planowanie obronne, p. 157.
- 45. This kind of economic planning has been typical of the USSR since the First Five Year Plan and has been continued in Poland since 1950, with a brief interruption between the years 1956-1960. See P. N. Goremykin's preface to Vannikov's memoirs in Voprosy istorii, 1968, No. 10, p. 114, as well as the memoirs themselves, pp. 116-123; and Voprosy istorii, 1969, No. 1, pp. 122-135; Sitek, 1970, p. 158. For R&D, a lot of evidence has been published by two Soviet experts who defected from Russia in the 1970s: A. Fedoseev, Zapadnia (In the Trapdoor), Frankfurt/Am Main, Posev, 1976; Mark Popovskii, Upravliaemaia nauka (Manipulated Science), London, Overseas Publications Interchange Ltd., 1978.
- 46. The name and role of General Waluchowski are mentioned in the memoirs of the head of the Rear Services of the Polish Army, General M. Obiedzinski. General Waluchowski is mentioned as the Deputy Chairman of the Polish Central Planning Commission and as a participant in solving the problem of supplying the units of the Territorial Defense Forces. Obiedzinski, 1978, p. 321.
- 47. Those civilians and military officials appointed by the Head of the Party Central Committee Administrative Department, or by a Party Secretary, can be moved from their position *only* with the approval of that Party official or a superior.
- 48. In the Soviet-modeled bureaucratic system, the independent role of the Deputy Chairman of the CPC in relation to his immediate superior is not an exception. A typical example would be the superior function of the Russian second secretaries of the Party Committees in the non-Russian "Republics." Until 1955 the Soviet "advisers" in Poland

were in most cases designated as "deputy chiefs" in the security service, and "deputy commanders" in the military. Also in the "multi-Party" Polish political system, some ministers are designated from the puppet "Peasant-Party" or "Democratic-Party," while their deputies, who are the real rulers in the ministry are from the Communist Party (PZPR). A more detailed analysis of the role of these "deputies" should help to explain this bureaucratic phenomenon in the USSR and in the Soviet satellite countries.

- 49. The most sensitive positions in Poland, which often entail links with secret Soviet activities, are designated with the approval of the KGB and CPSU Central Committee Party Department. The head of the Mobilization Section of the Military Department of the CPC is, of course, among this cadre of Polish bureaucrats requiring the approval of the KGB.
- 50. Sitek, 1970, pp. 104-105; Ciaston, 1969, pp. 105-106; 227; W. Zak, "Niektore aspekty zabezpieczenia materialowo-technicznego potrzeb sil zbrojnych" (Some Aspects of Ensuring the Material-Technical Supply of the Armed Forces), Wojskowy Przglad Ekonomiczny (Warsaw), 1967, no. 4, pp. 11-12. A Polish economist made an estimate in the sixties that in the machine-building industry the effect of the mobilization program was to increase the cost of every unit produced for both civilian and military needs by 10 to 20 percent. Jerzy Borowiecki, Koszty posrednie w przemysle maszynowym (Indirect Costs in the Machine Building Industry), Warsaw, State Economic Publishing House, 1967, pp. 194-195.
- 51. In Polish: "Oddzial Specjalny," often abbreviated as "Specoddzial," like the Russian term spetsotdel.
- 52. Sitek, 1970, pp. 103-104; Ciaston, 1969, pp. 231-232; Stankiewicz, Ekonomika Wojenna, pp. 546-547. For the Soviet prewar experience in this field see Vannikov, Voprosy istorii, 1969, p. 124, and Goremykin's preface to Vannikov's memoir, Voprosy istorii, 1968, No. 10, p. 114.
- 53. The changing of each planned "annual supply plan" of the "five year military plan" can be caused by military-strategic, economic, or political and social reasons. A more detailed analysis of this aspect

of Soviet bloc military-industrial planning would require a separate study. In the present context, Cherednichenko suggested that, as abroad, the "united plan of strategic targets" changes each year, and that the military plan in the USSR is an integrated part of the civilian one— and five—year plans. "Ekonomika i voenno—tekhnicheskaia politika," p. 15. See also *Sovetskaia voennaia entsiklopediia*, vol. 2, Moscow, Voenizdat, 1976, p. 243.

- 54. Sitek, 1970, p. 110.
- 55. Ibid., pp. 169 ff; Cherednichenko, 1976, pp. 14-16.
- 56. Sitek, 1970, p. 158.
- 57. The "salary table" (in Polish: Tabela Uposazen) is an index of financial principles, which are the basis of officer salaries in the Polish Army. Salaries generally depend on military rank and position, as well as type, location, and length of service. Even officers serving in nonmilitary enterprises (military departments of the CPC and the ministries, civilian factories, military departments of the universities, etc.) can obtain their salaries only on the basis of the Ministry of Defense's "table of salaries."
- 58. Stankiewicz, Ekonomika Wojenna, p. 547. Information on underground Soviet military-industry factories is contained in the memoirs of a survivor of a Soviet concentration camp who for many years built and worked in such a factory. Leonard Gendlin, "Rastreliannoe Piatidesiatilete," (The Executed Half Century), Sovremennik, Toronto, No. 41, 1979, p. 120.

III. THE SOVIET ARMAMENT DECISIONMAKING SYSTEM

Only a few analyses have been published about the Soviet military-industrial complex and the armament decisionmaking system. The lack of sources is the main reason why even the most detailed studies have had obstacles in describing how the whole Soviet military-industrial complex operates. A comparison of Soviet practice with Polish practice can help to reveal a number of obscure and unknown Soviet bureaucratic links and activities in this area. Such a comparison can also help to identify the personal responsibility of the highest officials involved in armament planning, production, and procurement in the USSR.

To unravel the nature of the poorly understood bureaucratic links and arrangements of the Soviet armament decisionmaking system, a combination of three methodological approaches will be useful.

- Projection of the "Polish case" into the Soviet military-industrial complex without considering the specific conditions of the USSR.
- 2. "Morphological" analysis, based on available knowledge about the Soviet economic and socio-political system. Comparing this knowledge with that on the Polish armament decisionmaking system may illuminate those links in the Soviet military-industrial complex that are probable if the system is to operate effectively.
- 3. Knowledge about the Polish military-industrial complex for a more detailed searching of Soviet published sources can be helpful in seeking out additional information (efficial and otherwise) as a verification that certain links and bureaucratic establishments operate within the Soviet armament decisionmaking system.

The known Soviet armament decisionmaking bodies are as follows:

1. The Defense Council

- The Military Industrial Department of the Party Central Committee, and the Party Central Committee Secretary responsible for the armament industry
- 3. The Military Industrial Commission
- 4. Military-industrial ministries.

In addition, there are suggestions about some kind of planning coordination in *Gosplan* between the military-industrial and civilian sectors. The Polish case should help answer three questions about the USSR:

- 1. What is the function of the Military Industrial Commission?
- 2. Does Gosplan have a military department, and if so, what are its size and functions?
- 3. Do the very specialized military-industrial Soviet ministries have military departments, and if so, what are their functions and tasks?

In Poland, the Head of the Military Group of the CPC simultaneously occupied the position of the Head of the Military Industrial Commission. That was possible because the Polish armament industry is fairly small. Given the complexity of the military-industrial bureaucracy and the size of the military industry within the USSR, however, it is hard to imagine that one individual could coordinate both the military-industrial bureaucracy and the large and dynamic military-industrial planning apparatus. Because such a planning apparatus probably does exist, it follows that such an apparatus can operate effectively within Gosplan only on the basis of day-to-day cooperation with the whole national planning apparatus. A more careful reading of Soviet writing may help to prove this statement.

Katasonov argues:

"Of extreme significance is the coordination of the planning of the buildup of the armed forces with the military-production activity of the whole economy. The military institutions, together with the national-economic authorities,

prepared the principles of the unified military-economic and military-technological policy, coordinated the plans of the rearmament and material-technological supply (of the Armed Forces) with the industrial-production plans, etc. The military authorities focused their attention on the timely submission of their demands, and, if their needs unexpectedly changed, on the quick correction of their orders.³

Cherednichenko writes: "Planning in the area of the buildup of military forces and the military-economic and military-technological policy is inseparable from the whole of state planning. It is strictly coordinated with the state plan of which it is an integrated part."

Given the operation of a military planning apparatus in Gosplan, its function and organizational structure may be described on the basis of the Polish case. Probably there is a Mobilization Section within the Military Department of Gosplan, and its internal structure is more or less like that in Poland. The size and the number of different departments or sections are, from this point of view, not important.

Extending the analogy to military industry, a military department would also operate in each industrial ministry. Military industry must be an integrated part of the civilian not the military bureaucracy. Only Gosplan is able to function as the appropriate economic planner in each industrial ministry, even in the most militarized. It would be impossible to carry out a coordinated policy of allocation of resources if the military-industrial ministries were a part of an independent authority not subordinate to the Gosplan. Additionally, military influence on the activity of the military-industrial ministries would be enhanced by a military department inside these ministries.

From the point of view of Gosplan, the process of planning and controlling the activity of the "nonmilitary" and "pure military" industries is identical. Ministries that specialize in the production of weapons and military equipment are, of course, better treated; but Gosplan has ordered their privileges and preferences. The military customer whose concern is that the military supply plan not be disrupted can grant priority status to the military department of such a ministry. The military departments of the "pure military" industrial ministries are responsible for the military plan, which is an integral part of

the ministry's whole economic plan, which in turn is the responsibility of the ministerial managers and includes all determinations of production, investments, manpower, wages, organization, social, and other aspects of the economic plans. Gosplan's Military Department delegates to the military departments of these ministries only that sector of the economic plan dealing exclusively with the projected final and semimanufactured production that is to be delivered to the military customer. The military departments overses the most significant (for the military) part of the production plan that the ministries will be carrying out in accordance with the timetable. These departments must also prepare the ministry's mobilization plan while fulfilling such other functions as mediating between the voenpredy and the managers of a factory if a conflict develops.

THE DEVELOPMENT AND INTERNAL CONFLICT OF INTERESTS OF THE SOVIET MILITARY-INDUSTRIAL COMPLEX

In the Soviet Union every production program, civilian and military, is, in principle, carried out in a centralized way. In the western countries, military production is also planned, developed, produced, and sold in a centralized way, but the existence of a centralized armament production and procurement system in both the Soviet Union and the Western countries does not mean that they are similar. Two main factors lead to the differences between the two economic systems in the area of armament production decisionmaking: the political and economic development of the Soviet Union, and the nature of modern armament production and equipment.

From the first Five Year Plans, one of the most important goals of Soviet industrial development was building a base for military production. According to Holloway, "One of the main aims of Soviet industrialization was to provide the Red Army with modern military equipment. The first Five Year Plans for economic development were accompanied by Five Year Plans for the development of the Red Army."

The directives of the XV Congress of the Soviet Communist Party emphasized that the role of the First Five Year Plan was "to focus maximum attention on a more rapid development of those sectors of the national

economy, industry in particular, bearing the main role in ensuring the defense and economic stability of the country in time of war." During the early 1930s the Soviet defense industry was maintained and developed in the framework of specialized main administrations (glavki). But in December 1936 a Defense Industry Commissariat (NKOP) was created into which four previously existing glavki were incorporated (for aircraft, armament, ammunition, and shipbuliding). In 1939 the NKOP was divided into four different Commissariats: aircraft, armament, ammunition, and shipbuilding. In addition, the Commissariat of Machine Building was dissolved and three new Commissariats were created in its place: General Machine Building, Medium Machine Building, and Heavy Machine Building. New, more specialized Commissariats were also created, each having its own administration, construction trusts, design enterprises, and educational establishments. 7

The specialized ministries made it easier to carry out a selective supply system in which the defense factories enjoyed special privileges. In such a way a specially organized military-industrial complex was created and remains until the present day. All the best production factors are mobilized for this sector, enabling it to exploit the best resources of the country. "The economic, scientific, and technical achievements of the USSR made it possible to increase the military might of the Armed Forces to an unprecedented degree."

Although the military-industrial complex was segregated within the framework of the national economy as an organizational unit, it was also integrated with the national economy, playing a leading role in its development. The functioning and development of this complex was and is based on specific connections with the military, the party apparatus, the industrial bureaucracy, and the planning apparatus. This organized, bureaucratic military-industrial complex has existed throughout the history of the Soviet Union, although its form varied slightly at different stages.

The Soviet military-industrial complex is not a product of one political decision or ruler; it is a child of the Soviet economic system, with its underdeveloped civilian sector and its strong emphasis on heavy industry, both of which served primarily to support the modern armament industry. The preference for military and heavy industry

was possible only at the price of permanent discrimination against the civilian sectors of the economy, resulting in a freezing of the standard of living at a very low level. This in turn was made possible only through the use of a very strong terror apparatus which exists to the present day, and through heavy political indoctrination of the people. The very expense of the terror apparatus further limited the possibility of raising the standard of living. Thus, there is a vicious circle, in which the military-industrial complex, the terror apparatus, and the political party apparatus cannot exist without one another, if the military is to be strong and modern.

Soviet economic planning is based on the existing or known production factors or on their predictable development. The planning of economic development on the basis of maximum use of the existing production factors is a holy principle of this system. A small reserve of production factors that can be used for unexpected needs or unexpected changes in the economic plans remains at the disposal of the *Gosplan*. Every attempt to alter the one- or five-year plans in an unexpected way is expensive, complicated, and inconvenient for the bureaucratic apparatus. It is not just a question of adding something to the economic plan, but of rearranging the plan of each sector of the economy, even though they are not directly connected with one another.

Before World War II, the USSR started to produce heavy armaments, for which a lot of steel was needed. To obtain this steel, the production plans of all nonmilitary goods were reduced, including cars and tractors. As a result, even the very modest agricultural plans were not fulfilled for several years. In other words, the Soviet economy-like the Polish, a centrally planned economy with a small reserve of production factors—is not adapted to rapid or serious changes in the production program. If such changes must be made for objective reasons, such as natural disasters, they are publicized and used to justify to the population the lack of consumer goods; but if such changes must be made as a result of the permanent pressure of a very strong bureaucratic organization, such as the military—industrial complex, they are concealed from the people so as to prevent the mobilization of negative public opinion against that bureaucracy. In such a case, the

responsibility of explaining the reduction of the consumer goods sector to the people belongs to *Gosplan* and the civilian ministries and not to the military-industrial complex.

The dynamic development of modern weaponry sometimes causes the General Staff to demand unexpected and far-reaching changes in military-industry programs, making the General Staff an adversary of Gosplan. Every new discovery in the area of military armament or equipment that influences the General Staff's strategic plans becomes an instrument of pressure against the bureaucracies of Gosplan, the ministries, and part of the Party apparatus. The nonmilitary bureaucrats engaged in carrying out the economic plans do not like unexpected changes; for their own convenience, they prefer to work in a rhythmic, stable, and conservative way. Therefore, every new, unexpected, or exorbitant demand of the General Staff must break the strong resistance of the nonmilitary apparatus.

The reason for general resistance to innovation by the enterprises is quite simple. Factories that want to use new technologies and produce new manufactures are usually not able to perform in full the quantitative elements of the one-year plans and consequently lose very high bonuses. 12 The bonus for introducing new products or new technologies is much lower than that for performing the quantitative production plan. As an example of strong resistance of the enterprises and ministries against technological innovations, the Deputy Chief of the State Committee of Prices of the USSR argues that the ministries of machine building industries intentionally exaggerated by about 30-50 percent, and even more, the economic-technological effectiveness of new products and technologies. 13 In such a way they try to "fulfill" the plan of technological "progress." The machine-building industries are the most significant producers of weapon and military equipment. Only administrative pressure combined with special economic stimuli are able to overcome the "inertia resistance" of the military-industrial factories. 14

Industry, including military industry, the planning apparatus of the ministries, and even *Gosplan* are not allies of the quick development of modern weaponry; this apparatus is "heavy" and "sluggish" from the point of view of the military elite. The military industrial ministries

and the managers of military production enterprises are also unwilling to change production plans unexpectedly. In the relations between different managerial-bureaucratic groups (military, industrial, Party), the High Command of the Soviet Army represents the most dynamic tendencies to modernize weaponry, and the industrial bureaucracy the most conservative. 15

In the hierarchy of the Soviet decisionmaking system, the Defense Ministry is located one level lower than Gosplan, but the Soviet military is the representative of the most important "national interests." It is the "defender against the encroachments of the imperialist aggressors and the foundation of world peace." In addition, the Defense Ministry is both a very secret and a very professional bureaucratic apparatus, whose demands cannot be verified or challenged by "osplan. For this reason, a special military segment was created in Gosplan whose role is, as in Poland, to be a "buffer" between Gosplan and the Soviet Army, to relieve it of the pressure of the General Staff, but also to break its conservatism. The task of this segment is also to moderate the exaggerated demands of the military, not only for quality but also for quantities of new weapons and military goods. The demands can sometimes be so exorbitant that they can disable the planned growth of the national economy.

There is no information and, of course, no analysis about the role of this extremely important department. Western experts have discussed only the Military-Industrial Commission (also known by its Russian acronym, VPK) and its head, Deputy Chairman of the Council of Ministries, L. V. Smirnov. We can, however deduce that Deputy Chairman Vladimir N. Novikov is the Head of the military department of Gosplan, and that his First Deputies are now Ya. Riabov and G. A. Titov. A huge, effective planning apparatus for military tasks can function only within Gosplan's framework. The Military-Industrial Commission can influence the direction and goals of military-industrial planning, but it is unable to carry out that kind of work. The imputation of the planning function to the Military-Industrial Commission is a misconception. It is certain that not one demand of the High Command of the Soviet Army in the area of military goods, R&D, import of machinery and equipment,

investments, reserves, etc. can be fulfilled without being discussed in one or both of the Military-Industrial Commission and the Military Directorate of Gosplan.

The leading party bureaucracy is well aware of the counter-tendencies between the civilian industrial bureaucracy planning apparatus and the military elite. The Military-Industrial Commission (VPK) and the Military Departments of *Gosplan* coordinate the counter-tendencies on a large scale, but they are not ready to resolve all conflict situations between two pressure groups. Together with the problems that must be resolved on the highest level of the civilian and military bureaucracy, there are also many similar contradictions at all levels of the bureaucracies. Only an organization that penetrates into all levels of the civilian and military bureaucracy can resolve these contradictions. Such an organization is the Party bureaucracy, and so is the KGB. All these organizations and bureaucratic groups are an integrated part of the Soviet military-industrial complex.

The Western socio-political military-industrial complex differs completely from the analogous group in the USSR or in other WTO countries. The military-industrial complex of the USSR includes the entire bureaucratic groups and authorities, organizations, and enterprises that directly initiate, collaborate, cooperate with or control and fulfill the military-industrial programs of the Party leaders. This group includes, therefore, first of all the Party Politburo, the Council of the Ministers, the Defense Council, and the military elite. Also in this group are all members of the military departments of Josplan, military-industrial ministries, and other ministries, as well as the members of the Military-Industrial Commission.

The Soviet military-industrial complex acts, therefore, as ${\bf E}.$ Jahn noted, as a

'statist' bureaucracy which fundamentally distinguishes itself from the traditional bureaucracy of the feudal and bourgeois state. In Soviet society the bureaucracy unites both the classic (civilian) political functions with military functions (i.e., political in the largest sense) as well as the 'extra economic' functions with those of a ruling social and economic class.²³

If this statement is correct, there can be no conflict in the Soviet military industrial complex between the military and the Party rulers. 24 The Party rulers are the best advocates of the interests of the military. This does not mean that the Soviet military-industrial complex is able to act as a closed group and is free from internal conflicting tendencies. These tendencies, however, manifest themselves differently than they do in Western society. An analysis can be useful in exposing the obstacles in Soviet armament planning, production, and procurement.

In the hierarchical structure of the Soviet administration the two highest leves are *governmental*, the third and the lower levels are managerial. The entire military-industrial complex will be examined from this point of view.

The highest governmental level organs (gosudarstvennye vysshye organy upravleniia) decide the overall defense program and coordinate the civilian and military-development programs. This level includes (a) the Party Politburo and Defense Industry secretariat of the Party Central Committee, (b) the Defense Council (Sovet oborony), (c) the Council of Ministers of the USSR, (d) Gosplan, composed of the civilian Managerial Council and the Military Department.

The second governmental level agencies (otraslevye i mezduotraslevye organy upravleniia) prepare analyses and initiate decisions for the highest level and are the central distributors of the goods of the national economy. This includes (a) the Ministry of Defense and military-industrial ministries, (b) the Military-Industrial Commission, (c) the Main Administration of State Reserves, (d) the State Committee for Science and Technology, (e) other interministerial committees.

The third level (managerial) bodies (glavnye otraslevye upravleniia-glavki--and funktsional'nye glavnye upravleniia) execute all programs submitted by the first and second governmental levels, using only those resources at their disposal. This level includes (a) Vice-Ministries of Defense and commands of the different military forces (army, navy, air, engineering, missile, etc.), (b) military departments of the civilian and military-industrial ministries, (c) all-Union and Republican industrial production associations (Vsesoiuznye i respublikanskie promyshlennye ob"edineniia), (d) other central economic and administrative bodies of the third level.

This scheme of the hierarchial relations in the military industrial complex does not necessarily mean that each level is administratively subordinate to its superior. For example, the Ministry of Defense and the General Staff are not subordinate to Gosplan. However, in the problems of military production planning, only those plans and programs have legal force that are approved by Gosplan and accepted by the Council of Ministers and the Supreme Soviet. Concerning military production such approval must be received from the Military Department of Gosplan. In other words, only in this specific field is Gosplan one level higher than the Ministry of Defense and the General Staff.

This structure also does not explain what kinds of functions and tasks the different levels in the industrial decisionmaking system carry out. In the diagram adapted from the work of a Polish economist (Fig. 2), the armaments directorates of the Ministry of Defense and of the General Staff have initiating and directing functions in the planning and execution process of armament production, but the approval function lies in the Defense Council—the Party Politburo and the Council of Ministers.

THE DEFENSE COUNCIL, THE POLITBURO, AND THE PRESIDIUM OF THE COUNCIL OF MINISTERS WITHIN THE MILITARY-INDUSTRIAL COMPLEX

The relations among the Defense Council, the Party Politburo, and the government have decisive significance for the whole defense policy of the CSSR and, of course, for military-industrial decisions as well. The majority of students in this field try to analyze the functioning of the Defense Council on the basis of the socio-political relations that developed within the Soviet Party and the USSR. To explain these relations requires a detailed description of the position of the Party First Secretary in the Politburo and the Defense Council.

It is a sacred principle of the Communist, Soviet, and Russian traditions that security, defense, and foreign affairs are directly supervised by the ruler of the country. This role of the Party First Secretary is motivated by doctrinal concepts and is ensured by organizational arrangements. The doctrine of "Party centralism" creates a permanent tendency to accumulate responsibility and power in the hands of

a small and tightly knit group. The statement used in official Soviet Party documents and in mass media propaganda that the Party Central Committee is the elected ruler of the Communist movement and of the country is merely a stage prop intended to convey the image of party democracy in action. Members of the Party Central Committee are appointed in advance by the Party Politburo, and the political role of that body is limited and formal because of the tendency to concentrate political power in the Party secretariat and its departments, which serve the Politburo members. The limited role of the "elected" Party Central Committee is also a result of considerations of pure expediency, As Jaroslawski, a Polish expert, noted: "Such a wide forum, composed of Party functionaries from all over the country, could never be sufficiently well informed to be able to make rational political decisions."²⁹ Therefore, the national level decisions are made by the Party Politburo apparatus--Central Committee Secretariat and its departments and other non-Party administrative establishments. 30

The Party Central Committee has to be first an instrument of the highest Party decisionmakers, the Politburo. The process of concentration of power cannot, of course, be arrested even in the Politburo itself. Therefore, a natural and inevitable development is that the main decisions of the Politburo are in the hands of the Party First Secretary. I believe Kissinger was mistaken in thinking that in the early 1970s "Brezhnev was gaining in influence. He seemed to extend his role from the management of party affairs and the domestic economy into international politics." This remark contradicts his statement, probably correct, that "the Party General Secretary--Leonid Brezhnev since 1964--has the most important voice." 32

The Party ruler is the most competent and powerful person in military affairs because "the raison d'être of the Party has always required priority attention to military needs." This competence of the Party First Secretary is ensured by his nomination to be the head of the Defense Council (or the Higher Military Council, as it was known under Stalin and Khrushchev) simultaneously with his nomination to the post of the First Party Secretary. The almost monopolistic position of the Party First Secretary in the area of defense policy is also stimulated

by the system of an exact divided functional competence among the highest Party bureaucracy. "The bureaucracy is entitled to a view only in its area of competence; it appears not to have the right to an opinion regarding some other department's specialization, even if it is related in substance," Kissinger noted. This almost monopolistic position of the Party General Secretary is not diminished by the fact that the Minister of Defense has been elected to the Politburo. "It should rather be seen in . . . accordance with the Politburo's interest in a wide gamut of functional representation."

The clear comprehension of the position of the Party ruler in the area of defense policy has great importance for Western scholars and policymakers. The Soviet leadership cultivates mythical "differences of opinion" between the supposedly "liberal" Party First Secretary, inclined to make concessions to the West, and his supposedly more extreme, bellicose, and aggressive political opponents, especially inside the Soviet military command. This is a way of putting psychological pressure on Western statesmen, to get them to agree to so-called "moderate" proposals (e.g., on SALT or other international problems) as put forward by the First Secretary in power, who is presented as a "nice fellow."36 Although it is possible for certain members of the Soviet elite to hold more extreme views on certain subjects, it is practically out of the question for the ruling First Secretary to be repudiated by anyone else, including army leaders. This statement does not contradict Tatu's thesis that "the USSR has undergone some decentralization of power." 37 In the area of crucial economic, political, and military affairs, the Politburo still remains the sole purveyor of final decisions, and the General Secretary is the first among equals. tion of the Party leader is a result of a strong and rigid tendency in the Soviet political system toward monolithism, concentration of power, and "personalization." It is also-as well described by Alexander-a result of Soviet "cultural effects": the popular conviction that only the "strongest man" with a "strong hand" can be the correct ruler. 39

The party apparatus, the military elite, and even the KGB can deliver opinions and expert analysis, which may or may not influence the Politburo's decision. If they do influence the decision, it is either as a result of their expertise or because they represent a specific "pressure-group" whose interests and tasks to a great extent are identical to those of the Politburo. In other words, the "great armament drive in progress since the middle 1960s" and "the increasing part played by the military in peacetime diplomacy" and also the military invasion of Afghanistan do not mean that the role of the military elite in the decisionmaking process increased. The Politburo and the Party First Secretary simply decided to carry out a more "militarized" policy. No doubt, "Brezhnev and the marshals share the same view of the role of armed force, that is, that it should influence the course of world affairs by its presence alone and from that presence derive political advantage." However, even in the most bellicose time, the Politburo would not permit the marshals to create a "pressure-group" that could contradict its political decisions.

This same kind of relationship operates inside the Politburo too. Its members are obligated to express their opinion in each important discussion. The most significant decisions are formally approved on the basis of majority vote. Nevertheless, it is difficult to believe that any member of the Politburo would survive as a "long-term counterweight" against the General Secretary. The members of the Politburo must be very careful if they want to express an opinion in contradiction to the Party ruler's suggestions. To support this view, although Khrushchev was overthrown in a conspiratorially prepared Party Plenum, he was the most powerful decisionmaker to his last ruling day. 41

This statement contradicts the opinion of some western experts, 42 requiring an explanation of the relationship between the Party's ruler and the bureaucracies of the Party, military, and government. 43 The members elected in all branches of the Party play only an incidental role in the decisionmaking system of the USSR. Party members, those active in Party channels, the secretaries of the different cells, and even members of the Central Committee have no right to make independent political or economic decisions. They are to carry out proposals or other political and economic acts only after they have been fully accepted by the Party apparatus supervisors. The Party cells can decide for themselves solely on marginal questions. All other political

activity is possible only with the permission of Party superiors located in the Central Committee departments—in other words, in the Party bureaucratic apparatus.

The heads of the Party departments act under the direct control of the Central Committee secretaries or, in special cases, under the control of those members of the Politburo who are not simultaneously Central Committee secretaries. All Central Committee secretaries are themselves members of the Politburo or have a sponsor who is a member. Aside from these relations, all Central Committee secretaries are directly subordinate to the First Secretary. The Central Committee secretaries are in fact "Vice Premiers" of the current Party leader. One of these "Vice Premiers" is responsible for military industry, and another is in charge of the military itself.

The most important "Vice-Premier" of the Party leader is the Prime Minister (Chairman of the Council of Ministers). In principle he is responsible for the current activity of all ministries, but in practice the responsibility is divided. Some activities are under the control of the Party First Secretary, others are under the supervision of the Prime Minister. 47 Here it is important to analyze some aspects of these divided responsibilities. Presumably, three Vice-Premiers of Kosygin are actually directly engaged in the planning of the defense industry: N. N. Baibakov, the Chairman of Gosplan; V. N. Novikov, who has been identified as the Head of the Military Department of Gosplan; and L. V. Smirnov, the Chairman (or head) of the VPK (Military-Industrial Commission). Between Novikov and Smirnov, the position of the latter is probably stronger, because Novikov is only a member of the VPK, while Smirnov is its Chairman. Novikov, however, is the head of the immense military department apparatus in the Gosplan and the ministries and, as Vice-Premier, he is in an equal position with Smirnov. These two high ranking officials are in a stronger position than the Chairman of Gosplan, Baibakov. The difference between Baibakov and them is that they are responsible for military-industrial affairs and Baibakov for civilian plans. Baibakov's sponsor is the Prime Minister, but Smirnov and Novikov's is the Party Central Committee Secretary responsible for military industry. 48 As head of the Military-Industrial

Commission, Smirnov is in permanent contact with the Chairman of the Defense Council—Brezhnev—and participates in Defense Council sessions when military—industrial problems are under dicussion. The formal equality of Smirnov, Novikov, and Baibakov as Vice—Premiers is important for the proper coordination of the activities under the control of the Prime Minister. But if there is a conflict between Baibakov and Novikov, it cannot be resolved by Kosygin alone. On such a matter, a decision can be taken only with the participation of the two high ranking officials, the Party Secretary responsible for military industry, and the head of the Party Central Committee Military Industry Department. They act in full coordination with the directives of the Party First Secretary.

The strength of these two Party officials with regard to the Prime Minister and other vice-ministers is also due to their acting as Party secretaries and heads of the Party Central Committee department, the official managing body in the Soviet system. They fulfill the "ruling role of the communists" in accordance with official doctrine. The Party is the first ruler, and the government is of secondary importance. Such relations exist at every level of the administrative sytem of the Soviet Bloc states. Ministries of the USSR, including military industry ministries, and the administration system of the "republics," regions, provinces, cities, etc. are primarily instruments of the Party apparatus. 49 Together with the KGB, the Party apparatus is the most powerful agent in every aspect of national life. The heads of Party departments and sections at every level of administration are nominated by the Party secretaries, each by their immediate superior, and are personally checked by Brezhnev. 50 Some of them are formally "elected" to the Central Committee by the Party Plenum. These members, however, are mostly well-paid Party administrators, not politicians. 51 Each head of a Central Committee Department operates his own special bureaucratic Party network. The number of these departments is identical to the number of the specific bureaucratic Party networks in different areas--heavy or light industry, military industry, agriculture, finance, military, ideology, etc. Every head of such a Party network executes the directives of the current Party leader.

There is a fundamental difference between the role played by members of the Party apparatus and the duties left to members of the Party Central Committee and Party cell secretaries and to most Party members. All these bodies, including the Party congresses, are figureheads for non-existent Party democracy. Inclusion in the Central Committee is of little importance if the Party member has not simultaneously been nominated to fill a pivotal position in public life or has not been in such a position before his Central Committee affiliation. A Central Committee member has potential but not actual strength. He has a chance but not a guarantee to be nominated to a higher and more significant position in the Party or government apparatus, and if he does achieve such a position he may even enjoy influence without being a member of the Party Central Committee. 52

Each high-level Party or government official, even the high ranking military bureaucracy, must keep on good terms with the Party secretaries, the heads of the Central Committee departments, and even the lowest ranking instructors of this apparatus. Only maintaining such a relationship can guarantee official power and security for the future. Every bureaucrat must also keep on good terms with the second mainstay of the Soviet ruling system, the KGB.

The Party departments represent an apparatus of professional Party administrators who are subordinate to high level Party secretaries.

All important administrative, economic, political, educational, military, and other activities must be accompanied by a similar activity and body in the Party apparatus. These bodies are matching "fathers" for each part of national life. Party officials are the controllers, advisers, trainers, and supervisors for subordinate authorities and officials.

They are also the arbiters and the judges in all conflict situations. Problems that cannot be resolved in ministries or other enterprises are settled by the Party apparatus. In principle there are two departments subordinate to two different Party secretaries, one for military industry and one for the military affairs. Even though the Minister of Defense is now a member of the Politburo, there is also a Party secretary for military problems who may or may not be subordinate to the Defense Minister. Their relations, moreover, are decided upon by the

First Secretary and to a great extent are dependent on the shifting power arrangements among the ruling Party members.

Decisions concerning military industry are also quite closely related to the activity of Party heads of different Central Committee departments and two different Party secretaries. This multiplicity is what lies behind the different Central Committee departments—the Military—Industry Department, the other industrial departments, and the Administration Department, which is also responsible for specific military affairs. As might be expected, the tasks and interests of these different Party bureaucratic networks are not identical in every case. Interdepartmental contradictions and conflicts arise with respect to personnel policy, the distribution of scarce machinery or raw materials, manpower, know-how, etc.

In principle the Central Committee Party Military-Industry Department must resolve conflicts between the Military Directorate and the Managerial Directorate of the Gosplan, including those related to the demands of the military. In such conflict the Military Industry Department acts as an objective judge; non-Party officials will not and cannot resolve these conflicts and contradictions without authorization from Party apparatus supervisors. Problems that are not settled by the Central Committee departments of secretaries are brought for discussion and decision to the Politburo or the Defense Council. 55 In this body there are three spokesmen: the Prime Minister, representing the interests of Gosplan and the capabilities of the national economy and the industrial ministries; the Minister of Defense, representing the needs and demands of the military; and the Party General Secretary, who bases his position on the comprehensive information provided to him by the Secretary in charge of military industry and the Chairman of the Military-Industrial Commission.

The Military Industry Department is the single body in the Central Committee apparatus in regular contact with all sides of the military industry complex: with the military, with military industry, and with industry in general. For this task, it is organized similarly to the Military Department of Gosplan. Its sections and divisions are in direct contact with the Central Committee industrial departments, with

the General Staff, and with the deputy ministers of defense. The priorities given to military R&D and production strengthen the Central Committee in its relations with other industrial departments. The independence of the Military Industry Secretary in relation to the Minister of Defense enables him to ask for explanations and to justify different military demands. 56

These preferences strengthen the Military Industry Department in any arguments with other Central Committee industrial departments. The information prepared for the Party First Secretary also carries more weight. For this reason the suggestions of the Military Industry Department concerning the placement of new investments and development of factories, roads, bridges, research-institutes and projects, exportimport, manpower, know-how, etc. are in principle adopted by other Central Committee departments.

The second factor behind the strength of the Military Industry
Department is the large number of Party secretaries who act in the military-industrial ministries, production associations, plants, institutes, and other enterprises. The secretaries of the Party cells, divisions, or sections who act in the military enterprises, or in areas where such an industry exists, are the "eyes and ears" of the Military Industry Department. Because military production is given priority in the industrial plants, the directives of the Military Industry Department also take precedence. Any Party secretary at the province, city, or plant level will never officially neglect the production plan of military goods. In practice, the Party secretaries can be more flexible in their behavior, but officially they remain submissive to the Military Industry Department network. The obedience of the Party secretaries to the stated military demands also stems from voenpredy pressure.

The relationships between the Party rulers and the network of government offices, factories, and other enterprises justifies the thesis that the military does not need special representatives to defend its interests within the Soviet military-industrial complex. The Party leaders with their huge bureaucratic Party apparatus are the best defenders of this complex. The Soviet military-industrial complex is an integrated, organic part of the whole Soviet economic, social, and

political system. At the highest level, in the Defense Council, this complex is represented by the Party First Secretary and the Minister of Defense. The Defense Council is, in addition, a ruling instrument over the government, and even over the Politburo. I must agree with the statement of K. F. Spielmann that "ruling out the intrusion of civilian considerations would seem to require decisions taken in the (Defense) Council to be routinely and passively accepted by the rest of the Politburo members as faits accomplis when those decisions reach the Politburo." ⁵⁷

This does not mean that the Defense Council cannot act under the pressure of military and nonmilitary factors (not to mention "antimilitary" factors). The Defense Council has a dilemma how to divide the GNP, but not from the point of view of consumer vs. military goods. The problem is, as Becker pointed out, how to ensure a high level of military outlays and simultaneously the rapid progress of the economy and technology, which provide the basis for producing new generations of modern weaponry. 58 The most effective kind of pressure on the Defense Council comes from the military, but it takes the form of military strategy and doctrine prepared by the Soviet General Staff. Both the military elite and the "civilian representatives" must think, act, and formulate proposals and demands only in the framework of the political goals and tasks decided upon in a general way by the Party leader and approved formally by the Politburo. From this point of view the Defense Council is a very convenient instrument of the Party ruler. 59 It is his most operative and "narrow" bureaucratic body, and also a meeting place for the representatives of the two countertendencies (military, represented by the Minister of Defense, and civilian, represented by the Prime Minister), which do not act at this level as "pressure groups" but only offer advice and information. The arguments of the counterrepresentatives cannot be used to blackmail the Party First Secretary (and Head of the Defense Council).

Only the First Secretary of the Party can indicate the "red line" for each kind of military or civilian outlays. Even such a brutal and inhuman dictator as Stalin understood that it is impossible to totally neglect civilian needs. 60 For this reason also, the rulers of the

Soviet Party do not like to be under the pressure of respected military experts. 61 This gives them a feeling of incompetence and limits their independence as the "most clever rulers." It is not by chance that Brezhnev decided to be a "marshall" and appointed as Minister of Defense a military-industrialist, Ustinov, and not another military professional to succeed Grechko. If, in the future, such a convenient Minister of Defense cannot be found, he will be only a member of the Defense Council, and not a member of the Politburo. Thus can the Party ruler use the decisions of the Politburo to force Defense Council decisions. But if it will be more convenient to use the decisions of the Defense Council against the Politburo, it is very simple to do this as well. However, there are two special times when the pressure of each of these military-civilian counter-tendencies can exert real influence: when the Party ruler has to be replaced or when he is starting his political career, and his supporters are not yet entrenched in the highest level of the bureaucracy. Such a conjunction can occur in the USSR in the near future.

SOME REMARKS ABOUT THE SOVIET MILITARY INDUSTRIALISTS

The case of deputy Minister P.S. Pleshakov, an important member of the Soviet delegation in the SALT negotiations, was the cause of speculations in the West in regard to the political power of the military industry ministers and their role in Soviet armament policies. Recall the role of the deputy ministers in the Polish system of the military-industrial complex and the Defense Council's network. Pleshakov was probably a Deputy Minister before he was appointed Minister of the Radio Industry. But neither the military industry minister nor his deputy has any political influence in Soviet defense policymaking. That would contradict the principles of the Soviet ruling system. The ministers can be only executors, advisors, experts, and managers—never policymakers (except those who are members of the Politburo). 63

Pleshakov was probably responsible for the military department's activity within his ministry, and because he was well-oriented in the current military-technical problems of the electronics industry, he

participated in the SALT talks, but as an advisor, no more. If he proved to be a productive advisor, his career might flourish; but his path to becoming a policymaker is not connected with his role as a minister (which is purely administrative) but with his specific usefulness to the Party leaders.

In this context, examine the exaggerated role of Smirnov, as described in different studies. Even the Military-Industrial Commission no more than coordinates the huge military-industrial bureaucracy. From this point of view, Smirnov is located at the top. However, the role of the Military Department of the *Gosplan* has been inexplicably underrated in the West. Smirnov's power as a coordinator of military-industrial development depends to a large degree on the opinion of the Head of the Military Department of the *Gosplan*, Novikov.

Poland's situation can be very instructive in this regard. Smirnov, with the support of Novikov, must fight against inertia resistance of the Ministers and their subordinates, because only Novikov is competent to estimate the real capabilities of the factories and R&D enterprises. Smirnov must be armed with correct information to overcome inertia resistance. But even Smirnov is, most probably, far from being a defense-industrial policymaker. In this context we can also better understand why military departments in the Soviet military-industrial ministries might have been formed. Without these departments, the influence and power of the Smirnovs, the Novikovs, and the military bureaucracy in Soviet industry would be very limited.

NOTES TO SECTION III

1. For the prewar and postwar development of the Soviet militaryindustrial complex, see Marshall M. Zakharov, "Kommunisticheskaia partiia i tekhnicheskoe perevooruzhenie armii i flota v gody predvoennykh piatiletok" (The Communist Party of the USSR and the Technical Rearmament of the Army and the Navy in the Prewar Five-Year Plans), Voennoistoricheskii zhurnal, 1971, No. 2, pp. 3-12; Vannikov, 1968 and 1969; V. Emel'ianov, "O vremeni, o tovarishchakh, o sebe" (On Time, Comrades, and Myself), Novyi mir, 1967, Nos. 1 & 2.; Julian Cooper, Defense Production and the Soviet Economy 1929-1941, CREES Discussion Paper, University of Birmingham, 1976; Marshall G. Zhukov, Vospominaniia i razmyshleniia (Memoirs and Reflections), Moscow, 1971, pp. 191-193; (pp. 190-194 in the English translation by Seymour Lawrence, Delacorte Press, New York, 1971, of the 1968 edition of the Zhukov memoirs); David Holloway, "Technology and Political Decision in Soviet Armaments Policy," Journal of Peace Research (Oslo), Vol. XI, 1974, No. 4; David Holloway, "Science, Technology and the Soviet Armed Forces," Paper prepared for the Workshop on Soviet Science and Technology, Airlie House, Warrenton, Virginia, 1976; Andrew Sheren, "Structure and Organisation of Defense-Related Industries," in U.S. Congress, Joint Economic Committee, Economic Performance and the Military Budget in the Soviet Union., Washington, D.C., 1970; Joseph J. Baritz, "The Organization and Administration of the Soviet Armament Industry," Bulletin of the Institute for the Study of the USSR (Munich), Vol. IV, No. 11 (November 1957), pp. 12-21; Vernon V. Aspaturian, "The Soviet Military Industrial Complex--Does It Exist?" Journal of International Affairs, Vol. 26, No. 1 (1972); Karl F. Spielmann, "Defense Industrialists in the USSR," in Dale R. Herspring and Ivan Volgyes, Civil-Military Relations in Communist Systems, Boulder, Colorado, Westview Press, 1978; Spielmann, Analyzing Soviet Strategic Arms Decisions, Boulder, Colorado, Westview Press, 1978; Egbert Jahn, "The Role of the Armament Complex in Soviet Society. Is There a Soviet Military Industiral Complex?" Journal of Peace Research, 1975, No. 3, Vol. XII, pp. 179-194; Arthur J. Alexander, The Process of Soviet Weapons

Design, Santa Monica, The Rand Corporation, March 1978, (P-6137); Arthur Alexander, Decision-Making in Soviet Weapons Procurement, London, International Institute of Strategic Studies, Adelphi Papers Nos. 147-148, Winter 1978-79. Alexander's Adelphi Paper is the fullest and the most informative work yet published in the West in this field.

- 2. Dr. Adela Nikolskaya, a former staff member of the Institute of *Gosplan*, now Assistant Professor of Department of Economics, Illinois State University, told me that *Gosplan's* Military Department is on the first floor of its main building and is specially guarded.
- 3. Yu. V. Katasonov, "Borba za effektivnost' ispolzovania voenno-ekonomicheskikh resursov" (The Struggle for Effectiveness in Using Military-Economic Resources), in P. V. Sokolov (ed.), *Voenno-ekonomicheskie voprosy v kurse politekonomii*, Voenizdat, Moscow, 1969, pp. 286-287.
- 4. Major-General M. Cherednichenko, "Ekonomika i voennotekhnicheskaia politika" (Economics and Military-Technical Policy), Kommunist vooruzhennykh sil, 1968, No. 15, p. 14.
 - 5. Holloway, "Technology and Political Decision," p. 6.
- 6. Quoted in P. Smirnov, "Pervye piatiletki i voenno-tekhnicheskaia politika partii" (The First Five-Year Plans and the Military-Technical Policy of the Party), *Voenno-istoricheskii zhurnal*, 1979, No. 4, p. 68.
- 7. S. Spirin and A. Titov, "Sotsialisticheskoe planirovanie i oborona strany" (Socialist Planning and the National Defense), Kommunist vooruzhennykh sil, 1971, No. 4, p. 41; E. Lokshin, Ocherk istorii promyshlennosti SSSR (An Outline of the History of Soviet Industry), Moscow, 1956, p. 276. See also the chart on p. 127 of Sheren, 1970.
- 8. The Officer's Handbook. A Soviet View, General S. N. Kozlov (ed.), Moscow, 1971. Translated by the DGIS Multilingual Section, Translation Bureau, Secretary of State Department, Ottawa, p. 3.
- 9. See the works cited by Zhukov, Vannikov, and Spirin and Titov; R. W. Davies, "A Note on Defense Aspects of the Rual-Kuznetsk Combine," *Soviet Studies*, Vol. XXVI, No. 2, April 1974, pp. 272-273; Alexander, *Decision-Making*, p. 2; Smirnov, 1979.
- 10. There is a difference between the existence of a strong terror apparatus and a policy of brutal mass terror. The political effectiveness of such an apparatus in creating a psychological fear among the

population in the USSR is possible because there are still strong memories of the bloodthirsty days of the Stalin era. Terror does not have to be physically brutal to be useful. Soviet emigrants have provided a lot of testimony about the universality and the power of the KGB in current Soviet social and political life. For the role of KGB in the internal political life in Russia in the 1970s, see Vladimir Soloviev and Elena Klepikova, "Nineshinie i budushchie praviteli Rossii" (Current and Future Rulers of Russia), Vremia i My (Tel-Aviv), 1979, No. 44, pp. 134-156.

- 11. Spirin and Titov, 1971, p. 42. An insufficiency in the number of the tractors called for by the plan was one important reason, but not the only one, for the failure of Soviet agriculture. See Michael Checinski, "Agriculture and Nutrition in the USSR 1940-1945," Radio Liberty Research Supplement, April 18, 1975.
- 12. For a more detailed analysis of this question, see Joseph S. Berliner, *The Innovation Decision in Soviet Industry*, MIT Press, Cambridge, MA, and London, England, 1976.
- 13. A. Koshuta, "Sovershenstvovanie metodiki obrazovaiia tsen na produktsiu mashinostroenia" (The Improvement of the Method of Creating Prices of Machinery Products), *Planovoe khoziaistvo*, 1979, No. 8, p. 46.
- 14. P. Orlov, "Upravlenie obnovleniem proizvodstvennogo oborudovaniia i sistema amortisatsii" (Managing the Renovation of the Production Equipment and Amortization System), Planovoe khoziaistvo, 1979, No. 9, pp. 33-60; I. I. Punanov, "Ispolzovanie tovarno-denezhnykh otnoshenii dlia uprochenia oboronosposobnosti sotsialisticheskogo gosudarstva" (The Use of Commodity-Money Relations for Strengthening the Defense Capability of the Socialist State), in P. V. Sokolov (ed.), Voenno-ekonomicheskie voprosy v kurse politekonomii, Voenizdat, Moscow 1969, p. 228-229.
- 15. For the ponderous and torpid reaction of Soviet industry to the tasks of the Ministry of Defense, see Michael Agursky, The Research Institute of Machine-Building Technology: A part of the Soviet military-industrial complex (in Russian), The Soviet and East European Research Center, The Hebrew University of Jerusalem, Soviet Institutions Series, Paper No. 8, 1976, p. 34. Even in time of war, military-industry worked effectively only under the direct and daily control of Stalin. Vannikov

thought this a compliment to Stalin. As a typical Soviet bureaucrat, Vannikov did not understand that he was in fact blaming Soviet military-industry for being unable to work effectively without strong administrative pressure and sometimes even terror. See Vannikov, *Voprosy istorii*, 1968, No. 10, p. 117.

- 16. Sovetskaia Voennaia Entsiklopediia, Vol. 2, p. 345.
- 17. Several writers have mentioned the role of Gosplan, but in a very general way. J. Erickson, "Soviet Military Operational Research: Objectives and Methods," Strategic Review, Spring 1977, p. 68, quoted in Alexander, Decision-Making, p. 18; Holloway, "Technology and Political Decision," p. 260; Spielmann, Analyzing Soviet Strategic Arms Decisions, p. 54.
- 18. Smirnov's role is described in each study of Soviet military industry.
- 19. In view of his education and experience, Novikov must have been connected with Soviet military industry from 1928 to 1957. He must have continued as a military-industrialist after 1957 as well, when he was appointed Chairman of the most important district for Soviet military industry, the Leningrad Sovnarkhoz. From 1958 to 1962 he worked as Chairman of the Gosplans of the RSFSR and the USSR. At that time he was also the representative of the USSR in Comecon. Interviewees recall his name as the Soviet head of military-industrial affairs. Agursky also mentioned Novikov in this context. In 1968 Vannikov wrote about Novikov as Deputy Chairman of the Council of Ministers and also in the context of his role in military industry. Officially, the role of Novikov, who is also a long-term member of the Central Committee, is never described in detail. (He is only a deputy Chairman of the Council of Ministers). If Polish experience is a criterion, the head of the Military Department of the Central Planning Commission must be an economist or military engineer and hold the position either of Deputy Chairman of the CPC or Deputy Prime Minister; Novikov seems appropriate for this role. See Agursky, 1976, p. 5; Bolshaia Sovetskaia Encyclopediia, Vol. 18, Moscow, 1974, p. 64; Vannikov, Voporosy istorii, 1968, No. 10, pp. 116-123.

About the role of G. A. Titov, an A. Titov was the co-author of the 1971 article about the role of socialist planning in Soviet defense

policy, published in connection with the 50th anniversary of Gosplan and was described as a "Chief Expert of Gosplan"--a typical Soviet camouflage. In 1974 G. A. Titov was appointed First Deputy Chief of Gosplan. I assume that G. A. and A. Titov are the same and that he is the head of the Department of Current Military-Industry Production of Gosplan. (See Spirin and Titov, 1971.) Titov is also a member of the Central Committee, a remarkable position for the Deputy Chairman of Gosplan. If my suppositions are correct, there will soon be some changes in the elite of the Military Directorate of Gosplan. V. Novikov, who is now 72 years old, may be replaced by the younger (51) Yakov P. Riabov, who was recently appointed first deputy chairman of Gosplan, being removed from his post as Secretary of the CPSU Central Committee responsible for defense industry. It is also possible that in connection with the new armament program of the USSR, Gosplan's military-planning role will be strengthened. Riabov is thought to be responsible now for the new system of R&D planning. This appointment suggests that the improvement of R&D planning in the USSR is now the main focus in Soviet armament competition with the West. See Ya. Riabov, "Nauchno-tekhnicheskii progress i effektivnost' proizvodstava" (R&D Progress and the Effectiveness of the Production), Planovoe khoziaistvo, 1979, No. 12, pp. 3-10; see also RFE-RL Current Abstracts and Annotations--Supplement to the Radic Liberty Bulletin, No. 6, March 1979, pp. 21-22; and No. 9, May 1979, p. 23. In 1972 Holloway identified V. M. Ryabikov, a former defense industries manager, as a Gosplan First Deputy Chairman and as a representative of Gosplan in the Military-Industrial Commission. Holloway, "Technology and Political Decision," p. 260. Biographical sketches of defense industry leaders, including Ryabikov, can be found in John McDonnell, "The Soviet Defense Industry as a Pressure Group," in Michael MccGwire, Ken Booth, and John McDonnell, Soviet Naval Policy, Objectives and Constraints, Praeger, New York, Washington, London, 1975, pp. 116-121.

20. Alexander states that in the Gosplan there is a "separate division which develops the military production plan and integrates it with the rest of the economy." This is, I think, the most correct statement on this subject. However, on the same page he writes that the Military-Industrial Commission "is the working group responsible

for supervising, co-ordinating, and planning defense R&D and production." Alexander, Decision-Making, p. 20.

Spielmann states,

The VPK may thus bear particular witness to differences among the defense industrialists; it may also provide the defense industrialists with a forum for displaying their unity. Consequently, notwithstanding the usefulness of this organ to the top leaders as a tool for imposing their will on the defense industrialists, the latter may also regard the VPK as a political asset, insofar as it facilitates their efforts to press the case of the defense-industrialists' bailiwick as a whole. (Spielmann, "Defense Industrialists," p. 114.)

But what is the role of the *Gosplan* and the Party apparatus? Ministers in the USSR cannot build a "united front," and Spielmann correctly writes on the same page that they "are basically passive instruments of the regime." It is *Gosplan's* role to coordinate the production programs of the different ministries. The image of "unity" among military-industrialists has no basis in Soviet reality. The VPK must, of course, find a way for smoothing the *conflicts* among the industrial ministries, if a new production program must be carried out. No minister is happy to be involved in new production plans. The VPK can, therefore, act in only one of the directions Spielmann suggested.

- 21. The social aspect of the Soviet military-industrial complex is analyzed in the quoted articles of Aspaturian, holloway, John, Alexander, and Spielmann, among others.
- 22. Spielmann analyzes "the term interest interest in a content to identify and analyze the various components of the Soviet defense bureaucracy whose interests may affect the development, production, and development of strategic weapon systems." In another place he states that "the ranks of the defense industrialists would include managers at all levels in the defense-industrial ministries—from ministry—level administrators to individual defense plant managers." Spielmann, therefore, does not analyze the term military—industrial complex. See Spielmann, Analyzing Soviet Strategic Arms Decisions, p. 32, and "Defense Industrialists," p. 107.
 - 23. E. Jahn, 1975, p. 191.

- 24. "While there is but the most tenuous of evidence for those who postulate profound organizational or conceptual divergencies as between the Party and the armed forces, there is a wealth of evidence for those who see the two as intertwined, complementary, and mutually supportive." C. G. Jacobsen, Soviet Strategic Initiatives: Challenge and Response, Praeger, New York, 1979, p. 145.
- 25. Concerning future relations between the Party rulers and the military, after Brezhnev, Holloway states: "One cannot assume, however, that the politico-military relations will necessarily remain so good. They might change for the worse if a new leadership embarked on a political course which shifted resources away from the military effort."

 David Holloway, "Decision-Making in Soviet Defense Policies," in *Prospects of Soviet Power in the 1980's*, London, IISS Adelphi Paper No. 152, Summer 1979, p. 29. In my view this thesis appears to be far from Soviet reality.
- 26. Spravochnoe posobie direktoru proisvodstvennogo ob"edineiia i predpriiatiia (A Handbook for the Director of the Production Association and the Enterprise), Moscow, Ekonomika, Vol. I, 1977, pp. 41-47; M. Kozlov, Koordinatsia v upravlenii narodnym khoziaistovm SSSR (Coordination in the Managing of the National Economy of the USSR), Moscow, MGU, 1976, pp. 69 ff.
- 27. Kozlov, 1976, pp. 102-107; Stankiewicz, *Planowanie obronne*, pp. 164-169.
- 28. See the walks by Alexander, Aspaturian, Holloway, Sheren and Spielmann; also John McDonnell, "The Organization of Soviet Defense and Military Policy Making," in Michael MccGwire and John McDonnell, Soviet Naval Influence: Domestic and Foreign Dimensions, Praeger, New York, 1977.
- 29. Jan Jaroslawski, Soziologie der Kommunistischen Partei, Frankfurt/New York, Campus Verlag, 1978, p. 389. About the role of the Party apparatus see Merle Fainsod, How Russia Is Ruled, Harvard University Press, Cambridge, 1970, pp. 180 ff.
- 30. The role of the Party Central Committee is discussed here only in the context of the Party-military and Party-military-industrial relationship. Some western experts still believe that if the representatives of the military or military-industrialists are "elected" to the

Party Central Committee, they can organize a political pressure group that can influence the most significant Politburo decisions. J. McDonnell, analyzing the role of the military and military industrialists in the Soviet Central Committee, argues: "Even taken together...the military and defense industry contingents form but a small minority of the Central Committee, indicating their need for political allies, especially in the party apparatus, to secure the adoption of policies they would prefer," and "The importance of the defense industry in formulating military and foreign policy is suggested by the key role played by Smirnov in the final negotiations of the first SALT agreements." John McDonnell, "The Soviet Defense Industry as a Pressure Group," in Michael MccGwire, Ken Booth, and John McDonnell, Soviet Naval Policu. Objectives and Constraints, Praeger, New York, Washington, London, 1975, pp. 105-106; T. J. Colton writes: "Yet this represented only the political decision-making bodies of the ruling party. The thirty military members on the 1976 Central Committee were by far the largest contingent from any bureaucratic constituency." (Commissars, Commanders, and Civilian Authority. The Structure of Soviet Military Politics, Cambridge, Mass., Harvard University Press, 1979, p. 245.) The membership of the Central Committee is a formality and has no significance to the political role of the various decisionmaking elites in the USSR. My own experience in Poland supports the view of Kolkowicz who argues: "Thus, while it is very useful to compare the proportional representation of military spokesmen in the Central Committee during various periods of Soviet history, one must be careful not to relate such numbers to direct political influence or political power." This statement, I believe, is also correct for military industrialists. See Roman Kolkowicz, The Soviet Military and the Communist Party, Princeton University Press, 1967, p. 330; and also the view of Tatu, who writes that the Central Committee's sessions "take place only twice a year and are too brief to enable the average member of the Central Committee to take any real part in its (Politburo's) business." Michel Tatu, "Decision Making in the USSR," in Richard Pipes (ed.), Soviet Strategy in Furope, Crane, Russak & Company, Inc., New York, 1976, p. 47, note 2.

31. Henry Kissinger, White House Years, Little, Brown Company, Boston, Toronto, 1979, p. 527.

- 32. *Ibid.*, p. 526. Compare the following: "KGB"s own information [from abroad] and that of the Ministry of Defense go only to the Secretariat of the Secretary General of the CC CPSU, to Brezhnev's foreign affairs unit, currently headed by Alexander Aghentov." Vladimir Petrov, "Formation of Soviet Foreign Policy," *Orbis*, Vol. XVII, No. 3, Fall 1973, p. 821.
 - 33. Jacobsen, 1979, p. 146.
 - 34. Kissinger, 1979, p. 526.
 - 35. Jacobsen, 1979, p. 146.
- 36. "General Yepishev is a close political ally of Mikhail A. Suslov, the ideologist on the Politburo who is also reported to be the leader of hard-line forces believed to be dominating policy since the move into Afghanistan," noted The New York Times of April 12, 1880, p. 6. The soft-liners being the dominant power in the Politburo, they must therefore have decided to invade Afghanistan; Martha C. Mautner, Chief of the Soviet Foreign Policy Division in the U.S. Department of State's Bureau for Intelligence Research, noted: "Being acknowledged as an equal justifies the Soviets' willingness to negotiate in SALT to their allies, to themselves, and to their own domestic hawks." United States Security and the Soviet Challenge, Report of a Wingspread Briefing, Racine, Wisconsin, The Johnson Foundation, June 29, 1978, p. 10. However, Jacobsen, 1979, p. 148, argues "that the quantitative superiority of today's Soviet arsenal has not been dictated by military calculations. . . . It is the political leadership that would be inclined to authorize the requisite program in accordance with its traditional emphasis on the political role of military force." Tatu, 1979, p. 62, argues: "It should be made clear at once that it is not here a question of the well-worn picture of 'Brezhnev the peacemaker wants to salvage his policy of detente' opposed by 'Grechko and his marshals, the advocates of a hard line.'" A similar opinion is expressed by Kissinger, 1979, p. 121-122. See also W. E. Odom, "The Soviet Military: Party Ties," Problems of Communism, September-October 1973.
 - 37. Tatu, 1976, p. 45.
 - 38. Ibid., p. 52.
 - 39. Alexander, Decision Making-System, pp. 28-29.

- 40. Tatu, 1976, p. 62.
- 41. McDonnell, 1975, p. 103, argues that Khrushchev and Brezhnev assured the Western journalists that on Politburo sessions a consensus is achieved through discussion, a majority vote, or through a subcommittee appointed to resolve the question. At the Party Plenum of June 1957, seven members of the Presidium of the Party were against Khrushchev, and only four supported his position; it was Marshal Zhukov who saved him from being overthrown. In 1964, when Khrushchev was finally overruled, the conspirators had learned from experience how to act successfully. In the USSR, faction struggles are impossible. There is a different picture, however, inside the Soviet satellite countries. In their "faction struggles" the KGB and the Central Committee CPSU apparatus, which are outside and decisive powers, act as an additional factor that does not exist in the USSR. See Jaroslawski, 1978, p. 386, and p. 535, note 75; Wlodzimierz Brus, Sozialisierung und politisches System, Frankfurt, 1975, p. 66; Checinski, Ludowe Wojsko, 1978.
- 42. See, e.g., William Lee, "The Politico-Military Complex of the USSR," Journal of International Affairs, 1972, No. 1, p. 80; J. M. Deane, Political Control of the Soviet Armed Forces, New York, Crane Russak & Co., Inc., 1977; and J. M. Deane, "The Main Political Administration as a Factor in Communist Party Control over the Military in the Soviet Union," Armed Forces and Society, Vol. 3, No. 2, 1977; Holloway, "Decision-Making in Soviet Defense Policies," p. 29.
- 43. I discuss these problems only in the context of how the highest ranking military-industrial bureaucracy makes decisions. The term "Party" can be used only in the meaning "Party rulers" or "Party apparatus" and not as a political mass organization with elected leaders.
- 44. Schapiro writes: "No one who knows anything about the Soviet Union would, of course, dispute the fact that various interests, such as academics and their manifold institutes, and even individuals, make themselves felt before this policy is formulated." Leonard Schapiro, "Rewriting the Russian Rulers," *The New York Review of Books*, July 19, 1979, pp. 8-10. See also Jaroslawski, pp. 378-397.

- 45. It is a principle of the ruling system of the Polish Communist Party that all Party Central Committee secretaries who are not members of the Politburo have a sponsor who is a member of this highest Party body. The same system operates in the USSR. On the Soviet Union, see Jaroslawski, 1978, pp. 380-391.
- 46. The Polish case will illuminate the double responsibility for military affairs. Until 1968, Marshal Marian Spychalski was both the Minister of Defense and a member of the Party Politburo. However, Ryszard Strzelecki, who was also a member of the Politburo, was simultaneously the Party Secretary responsible for military and security affairs. The Head of the Administrative Department of the Central Committee and the Chief of the Main Political Administration of the Polish Army were subordinate to Strzelecki. The same system of double political control undoubtedly operates in the Soviet Union. Brezhnev personally, as the Party Central Committee General Secretary, is now probably responsible for military and military-industrial affairs. The heads of the Military-Industrial Department of the Central Committee and the Head of the Administrative Department of the Party CC, as well as the Chief of the Main Political Administration of the Soviet Army (Yepishev), are directly subordinate to Brezhnev.
- 47. Kissinger noted: "As Prime Minister, [Kosygin] was in operational control of day-to-day activities of the Soviet government--out-side of the security and foreign policy fields." Kissinger, 1979, p. 1214.
- 48. Y. P. Riabov may become head of the Military Department of Gosplan, replacing V. N. Novikov.
- 49. See the very interesting interview with a Soviet Party Central Committee functionary in Mervyn Matthews, "Inside the CPSU Central Committee. Interview with A. Pravdin," *Survey*, Vol. 20, No. 4, Autumn 1974, pp. 98 ff.
 - 50. Ibid., p. 99.
- 51. Jaroslawski, 1978, p. 380, noted that about 60 percent of the members of the Central Committee "elected" at the XXII Party Congress of CPSU were well paid apparatchiki.
- 52. The best example is D. F. Ustinov, who was "elected" to the Party Central Committee in 1952 after having served for 11 years in an

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important role in the military-industrial complex of the USSR and during the war (1941-1945). Now Ustinov controls the most significant affairs of the Soviet Party. See *Bolshaia Sovetskaia Entsiklopedia*, Moscow, 1977, Vol. 27, p. 129.

- 53. An interesting case was noted by Pravdin. A. M. Runiantsev was a member of the Party Central Committee, Director of the Moscow Institute of Sociology and Vice-President of the Academy of Sciences of the USSR. He lost his position after he was involved in a conflict with N. V. Pelepenko, a Central Committee Party apparatchik, who was not even a member of the "elected" Central Committee. Matthews, 1974, p. 99.
- 54. Military affairs are divided between two Central Committee Party departments: The Administrative Department, in charge of personnel policy of the high ranking military commanders, and the Main Political Administration of the Soviet Army. These two departments are subordinate to one of the Party Central Committee Secretaries. Military-industry affairs are subordinate to another Party Central Committee Secretary.
- 55. I believe that a number of decisions of the Defense Council are *not* brought for discussion and decision to the Politburo. The First Party Secretary decides what to select as "important" for the Politburo session.
- 56. If a Politburo member other than the General Secretary is responsible for military industrial affairs, or if the Secretary of the Party Central Committee responsible for military-industrial affairs is not a member of the Politburo, he can ask for explanations from each level and each office of the Soviet Armed Forces without asking the Minister of Defense. If he goes through the Minister of Defense he does this to respect convention, not because he is obligated to do so. No military secrets are kept from the Party Central Committee Secretary responsible for military-industrial affairs, from the Military-Industrial Department of the Party Central Committee, or from the Military Department of Gosplan.
 - 57. Spielmann, Analyzing Soviet Strategic Arms Decisions, p. 53.

- 58. Abraham S. Becker, Military Expenditure Limitation for Arms Control: Problems and Prospects, Ballinger Publishing Company, Cambridge, Mass., 1977, pp. 76-77.
- 59. Alexander, analyzing the phenomenon of the role of the Party General Secretary as a Party ruler and the Head of the Defense Council, formulated a pertinent question: "The implications of the Defense Council's relationship with the Supreme Soviet are not clear. It may have been a mechanism to assure Brezhnev's leadership of the military when he became President of the Supreme Soviet, or to raise the Defense Council to a status higher than that of Politburo subcommittee." Alexander, Decision-Making, p. 57, note 75.
- 60. Vannikov noted that Stalin was very impressed when the military-industrialists proposed buying a special machine in the West, with a price equal to a full ship of grain. "Bread is gold. We must think again," stated Stalin. Vannikov, Voprosy istorri, 1969, no. 1, p. 131.
- 61. An example of how the highest Soviet nonmilitary bureaucrats are kept disoriented in pure military affairs is cited by Kissinger: "Before he was elevated to the Politburo I occasionally had the impression that I was better informed about Soviet military deployments than Gromyko. Our SALT negotiators clearly made the military officers on the Soviet delegation uncomfortable when they discussed Soviet military dispositions in front of Soviet diplomats; early on one of their officers suggested to our delegation privately that it would be better if technical military subjects were not raised in front of diplomats." Kissinger, 1979, pp. 526-527.
- 62. Raymond Garthoff, "SALT and the Soviet Military," *Problems of Communism*, No. 1, January-February 1975, p. 29; Spielmann, "Defense Industrialists," pp. 116ff.
- 63. There are two ministers who have a special status in the decisionmaking system, even if they are not members of the Politburo: the Minister of Foreign Affairs and the Minister of Defense--and, of course, the Chairman of the KGB (which is a committee).
- 64. As Chairman of the VPK, Smirnov must act very carefully with such members of this body as Gen. N. N. Alekseev (Deputy Minister of Defense), Gen. V. V. Druzhinin (the Deputy Chief of the General Staff),

and, in my opinion, Novikov (head of Military Department of *Gosplan*), not to mention Serbin and Riabov, who also participated in the sessions of the VPK. I would like to emphasize the organizational and administrative functions of Smirnov, more than his creative or initiating functions.

- 65. Only Alexander devoted attention to Gosplan. Alexander, Decision-Making, p. 20.
- 66. There are several examples of the "inertia resistance" of the military-industrial ministries in the memoirs of Vannikov.

IV. CONCLUSIONS

The military-industrial complex represents a huge part of the economic, social, and political life of the USSR. The material substance of Soviet military and political power is built, first of all, by military industry. A thorough examination of how this complex operates, and how it was developed, makes it less difficult to analyze and comprehend Soviet military policy. Moreover, without knowledge about the Soviet military-industrial complex, it is difficult to form an accurate picture of the Soviet economy as a whole.

The lack of published sources in this area becomes the main obstacle to a detailed analysis of the Soviet military-industrial complex. Some Sovietologists have attempted to overcome this barrier by transferring western military-industrial experience and models to the Soviet socioeconomic system. This approach has been productive in only some limited respects. Many questions are still unanswered, and knowledge of the most important links and of the decisionmaking system in this area remains obscure. The approach of utilizing the more accessible literature and information on the Soviet satellite states, as a window to the Soviet military-industrial complex, was neglected. No one tried to use the existing knowledge about the Warsaw Treaty Organization countries to extrapolate understanding in this area to illuminate Soviet military-industrial policy.

The Polish experience in the military industry has special importance. Poland is not only the biggest WTO member, but in addition its industry, built from the ashes after World War II, is also the most sovietized. Poland is the single state among the WTO countries where military-economic publications are represented in the most multifaceted way, on a fairly high scientific level. Many Polish military-economic writers are directly involved in military-industrial planning and are well-represented in the military-economy teaching and research fields. Books and journals in this area are systematically published. These materials present informative analyses not only about the Polish system but about all the WTO countries, including the USSR.

Military-industrial problems are only one aspect of the military and war economy as a whole. It is difficult to analyze the Soviet and WTO military-industrial complex separately from the war economy. Soviet military economy doctrine and practice influence the main directions of the development and organizational structure of the military industry. Production planning and weapon procurement are also directly influenced by military-economy doctrine. This report treats one aspect of a more general problem. Nevertheless, the Polish experience serves not only as a pattern to facilitate the discovery of links and activities of the Soviet military-industrial complex, but it provides a better understanding of how the whole mechanism of armament decisionmaking, planning, and procurement operates.

