

IV. FACTORS IN SOVIET FORCE BUILDING AND STRATEGIC DECISION MAKING

The literature review by Stephen Meyer presented a wide range of explanations for Soviet force building.²¹⁸ Most Soviet specialists either argued that Soviet weapons acquisitions were designed to fulfill specific military missions or attributed the USSR's procurement processes to interest group politics. Among the proponents of interest group models, some emphasized the consensus among the political leadership, the Armed Forces, and the defense industry.²¹⁹ According to this interpretation, the predisposition of the Brezhnev Politburo converged with military doctrine, and a mutual accommodation was struck between the Party and the military whereby the military was granted most of its strategic program requests.²²⁰ Other experts on Soviet institutions explained the USSR's arms buildup as the result of risk aversion, particularly of the Soviet tendencies to introduce technological innovations in small increments and to produce several different types of weapons, such as ICBM models, in the same generation in order to keep competing design bureaus in business.²²¹

In trying to understand Soviet strategy and force structure, U.S. leaders and analysts have tended to focus, with little success, on the personalities of the top leadership of the Soviet system and to have given even less attention to officials at the ministry level and below.²²² This was, in great part, a function of Soviet secrecy, whereby the details of the lives, roles, and relative influence of various actors in the areas of military policy and state security have been closely held.²²³ Differences that had been observed among leaders and organizations often were discounted based on the overriding assumption that the governing Soviet system was essentially monolithic and that all apparent personal and institutional differences represented Western misunderstanding based on misguided mirror imaging of the democratic political process or deception on the part of the

²¹⁸ Meyer, "Soviet National Security Decisionmaking," pp. 261-268.

²¹⁹ *Ibid.*, pp. 262-263.

²²⁰ Lambeth, *How to Think About Soviet Military Doctrine*, p. 18.

²²¹ Meyer, "Soviet National Security Decisionmaking," pp. 263-264.

²²² See, for example, Jerry Hough, "Soviet Succession: Issues and Personalities," *Problems of Communism*, Vol. 31, No. 5 (September-October, 1982), pp. 20-40; and Victor Wolfenstein, *The Revolutionary Personality: Lenin, Trotsky, Gandhi* (Princeton, N.J.: Princeton University Press, 1967).

²²³ Dale Herspring attempted to understand, based primarily on writings, the influence of senior military leaders on Soviet strategy and security policy. See Dale R. Herspring, *The Soviet High Command, 1967-1989*. (Princeton, N.J.: Princeton University Press, 1990).

Communist Party.²²⁴ Such views were held, both inside and outside the U.S. government, by those who believed that ideology was the defining, if not exclusive, factor explaining individual and institutional behavior in the USSR.

Excessive concern by some Western analysts with Communist ideological declarations, most of them widely ignored, shop-worn platitudes generated by the Soviet propaganda machine for internal consumption, tended to obscure the underlying reality. In authoritarian, hierarchical systems (Communist or otherwise) characterized by long periods of unchallenged incumbency in key leadership positions, organizations tend to develop and defend deeply entrenched positions. At the same time, the *de facto* directors-for-life of these highly structured bureaucracies comprising the governing Soviet *apparat* were able to exert tremendous influence downward through their subordinate substructures and laterally on their peers, depending upon the power they could derive from their respective organizations. Constraints on their authority had to be imposed by their common leader, should he be able and willing to exert authority, and by their peers, should they have the collective will and stature to do so.

Soviet sources indicate that, under Brezhnev, the top layer of Soviet leadership, and especially Brezhnev himself, was largely incompetent, indecisive, self-indulgent, and lazy. Such weakness and virtual indifference to the business of governing at the top helped to create conditions in which the massive Soviet state, with its stagnating economy and compliant society, drifted heavily and dangerously for decades, plodding with slow, powerful momentum in whatever direction compromises among powerful organizational and bureaucratic interests might take it. Under these conditions, willful officers, officials, and technocrats with large captive organizational and institutional constituencies, working largely out of sight of Western observers, were able to exert tremendous influence on Soviet foreign and domestic policy and behavior. In the areas

²²⁴ For example, William and Harriet Scott long insisted that there never were any serious differences between the military and the Party and that the Party *nomenklatura* system, which included top military leaders, commanded a loyalty that always transcended that to any other institutional affiliation. It is instructive that the Scotts identified three traditional power groups within the Soviet leadership: the Communist Party apparatus, the security-intelligence community (KGB, MVD), and "the military." The military industrialists, unquestionably the most powerful (and definitely non-military) group within the Soviet ruling class under Brezhnev, were not identified as a group separate from "the military." As we discussed earlier, the industrialists, in fact, had serious and persistent differences with the "operational," uniformed military, especially the General Staff. The military wanted a mix and quantity of weapons that supported the General Staff's operational strategy, weapons that embodied the most advanced technologies with which to counter a technologically advanced Western enemy. The industrialists wanted, above all, to produce and deliver as many weapons as possible, embodying "safe" (if obsolescent) technologies, the application of which would cause as few as possible interruptions in production. See Harriet Fast Scott and William F. Scott, *Soviet Military Doctrine: Continuity, Formulation, and Dissemination* (Boulder, Colorado: Westview Press, 1988), pp. 166-168.

of military strategy and force development, the absence of firm direction from above led to the emergence and persistence of contradictory strategic postures and policies. For example, stated policy (even for internal consumption) often co-existed with contradictory planning and preparation in several areas, the most noteworthy being a policy of no-first-use of nuclear weapons (a deterrence posture) and preparation for preemption (primarily a "warfighting" posture). Not surprisingly, there also developed serious inconsistencies between strategy and the force structure created to implement it, leading to a severely overburdened Soviet economy and confusion among Western leaders trying to interpret and respond to Soviet actions.

It is probable that Brezhnev gained and held his position at the top of the post-Stalinist governing oligarchy *because* of his indecisiveness and almost obsessive concern with consensus—traits that made him accommodating and acceptable to the ruling collective of Stalinist-era aging technocrats whose objective was to satisfy their need for security, influence and, above all, stability. The collective never really gave up control to him nor to anyone else. The business of the state was dragged along in the wake of deals and favors traded among the ruling oligarchs whose ultimately destructive behavior was unquestioned by a Soviet citizenry trained under Stalin and the Tsars to follow blindly.

Ineffectual Leadership at the Top

The clearest picture to emerge of Brezhnev's inattention and ineffectiveness and the impact of his incompetence on the governance of the Soviet state is to be found in a surprisingly revealing book by two highly placed officials from Brezhnev's own state security apparatus. In the book, *Through the Eyes of a Marshal and a Diplomat*, Marshal of the Soviet Union Sergei Akhromeev, former Chief of the Soviet General Staff, and Gregorii Kornienko, former First Deputy Minister of Foreign Affairs, describe, in some detail, the ineptitude and mental incapacitation of Brezhnev beginning in the early to mid-1970s and the non-performance of his Politburo in the 1970s and early 1980s.²²⁵

Kornienko reported that Brezhnev's health deteriorated badly in the early 1970s and that the last time he was able to represent the USSR as head of delegation "in more or less working form" was at the summit with President Gerald Ford in Vladivostok in 1974.

²²⁵ Sergei F. Akhromeev and Gregorii M. Kornienko, *Through the eyes of a Marshal and a Diplomat (Glazami marshala i diplomata)*, (Moscow, in Russian: Mezhdunarodnye Otnosheniia, 1992). Kornienko oversaw publication of the manuscript after his co-author committed suicide in August, 1991.

Brezhnev subsequently degenerated into such a state of mental incompetence that "he could no longer carry on a substantive conversation," and was able to make public presentations only by reading from a text prepared by his staff. To the great embarrassment of his own ministers and staff he would, oblivious to his surroundings, comment loudly and rudely on "inappropriate subjects," including the presentations and responses of foreign heads of delegations in the presence of the foreign officials themselves, most of whom understood Russian.²²⁶ By 1975, the General Secretary was no longer mentally competent.

Marshal Akhromeev stated unequivocally, several times, that Brezhnev *totally ceased to work* and function beginning in 1976, the year in which the General Secretary experienced a massive heart attack. The Marshal complained emphatically that "for six years," until his death in 1982, Brezhnev chaired the Politburo but did not in any way lead it. He had fallen into a state of total "inactivity," creating a situation in which the General Secretary of the Central Committee of the CPSU in fact did nothing to unify or coordinate the work" of the Politburo, the governing body of the Communist Party and the Soviet state.²²⁷

Both Akhromeev and Kornienko expressed considerable, apparently deeply felt, anger that the USSR was so badly led for such a long and critical period of its history. Their anger, perhaps misguided, was directed, to some extent, at Brezhnev himself. The most searing condemnation, especially on the part of Akhromeev, was reserved for the Communist Party, for failing to rectify such a harmful and dangerous situation when it first became apparent. Having pledged his loyalty to the Party, Akhromeev acknowledged that he was not blind to its shortcomings. "It was shameful," he declared, "both for the sake of the individual [Brezhnev] and for his comrades, that they [the Party leaders] tolerated a General Secretary such as Brezhnev, who did nothing and who permitted such deception and corruption."²²⁸

The comments of Kornienko and Akhromeev raise several questions about leadership of the Soviet state in the 1970s and early 1980s. Among the most relevant to this study: How did the leadership function at all without direction from the General Secretary? Why did the Politburo or Central Committee not rectify the situation by replacing

²²⁶ Ibid., pp. 39, 40.

²²⁷ Ibid., pp. 15, 23, 31, 32.

²²⁸ Ibid., p. 31.

Brezhnev? Most important, given that the Party leadership did not act, what were the consequences for national decision making, strategy, and military force structure?

The most direct answer to the question concerning how the leadership could function without a General Secretary is that, essentially, it did not. The Politburo was unable to serve as an effective governing organ for the CPSU and the Soviet state. In separate descriptions, Kornienko and Akhromeev characterized the Politburo as a collective of dotting, ineffectual sycophants. Akhromeev observed that when Brezhnev stopped working in 1976, so did the Politburo. Stating that he frequently attended Politburo meetings during the last two years of Brezhnev's tenure, he observed that, "It was a bitter and insulting experience to watch as the [Politburo] members, for the most part senile people who had lost their capacity to work, devoted an hour and a half not to adopting but rather to rubber-stamping solutions to some of the most important issues in the lives of the people completely without substantive analysis or consideration."²²⁹ Kornienko commented independently that it was "always personally torturous" to observe the Brezhnev Politburo in session, as was often his misfortune especially beginning in 1977. He complained that, "The longer the meetings, the more painful it was to watch in that so many economic and other issues were decided incompetently and often just not seriously, while a great deal of time was devoted to compliments to the chairman and, in general, to idle gossip."²³⁰

Struggles Among the Princes

Personalities

Because the Politburo, in the absence of a functioning General Secretary, was unable to govern the Party or the state, real power, by default, devolved downward to various Party secretaries and state officials, each working independently or in issue-specific alliances with other functionaries to produce decisions for "rubber-stamping" by the senile old men at the top. After Brezhnev's 1976 heart attack, there emerged a group of leaders, each member of which was responsible to the Politburo for a specific area of work. A. A. Gromyko, D. F. Ustinov, and Iu. V. Andropov were responsible for foreign policy,

²²⁹ Ibid., p. 32.

²³⁰ Ibid., p. 39.

defense readiness, and law and order; A. N. Kosygin and K. T. Mazurov for the economy; and M. A. Suslov, B. N. Ponomarev, and M. V. Zimianin for the party and ideology.²³¹ In this division of labor, not all groups enjoyed the same level of delegated (or surrendered) authority. For example, Kosygin, according to Akhromeev, was constantly subjected to interference from the bumbling and manipulated Brezhnev in the area of economic reform—to the great detriment of the Soviet state.²³² The state security and defense group (Andropov, Gromyko, Ustinov) in contrast, rarely faced opposition and their recommendations, with very few exceptions, were accepted by the full Politburo without amendment.

Various Soviet sources, some slightly contradictory, most mutually supportive, provided other useful insights into how defense-related issues were resolved in the absence of competent guidance from the General Secretary. First, the group that exercised dominant influence in the area of defense and security varied slightly in size and composition depending upon the nature of the questions under consideration. More important, in all manifestations of the core defense issues group, certain personalities such as Grechko and, above all, Ustinov, emerge as giants who overshadowed other personalities and largely drove the decision-making process. Second, on issues of military doctrine, strategy, and force posture, Brezhnev himself was very dependent and, as his health declined, perhaps totally dependent upon an academician, President of the Academy of Sciences, Mstislav V. Keldysh, whose name had been rarely, if ever, mentioned in Western discussions of Soviet defense decision making. The professor's role as the deteriorating General Secretary's surrogate brain in the area of defense strategy was, apparently, well understood within the inner circles of the Soviet leadership, whose members accorded him respect commensurate with his influence as well as an important place at the table during key security deliberations.²³³

²³¹ Ibid., p. 15.

²³² Ibid., pp. 15-16.

²³³ Former Deputy Foreign Minister Gregorii M. Kornienko credited Keldysh, through his influence on Brezhnev and Ustinov, with virtually single-handedly putting a stop to Soviet plans to go into competition with the United States to deploy a large-scale ABM system. Kornienko went so far as to assert that, even in the 1970-1972 period, before Brezhnev's health began to seriously deteriorate, the General Secretary, "accepted as truth whatever Keldysh said, to the extent that, until the end, [Brezhnev] had not broken through to any understanding of the substance of such issues. This was for him by that time material too difficult to grasp." *Marshal and Diplomat*, pp. 40, 41. In a separate discussion, Gen.-Col. Illarionov, a special assistant for 24 years to Marshal Ustinov, stated that, "Keldysh played the most important part," at the July 1969 extraordinary meeting of the Defense Council where Keldysh and Ustinov composed what was "practically a military doctrine for the country." The new doctrine endorsed survivability as an objective to be pursued in the interest of creating a secure retaliatory capability in order to deter the United States from initiating a first strike. See interview with Gen.-Col. Illarionov, April 1993, *Vol. II*, p. 82. A further indication of Professor Keldysh's stature in national security decision making was his membership on the "Politburo Commission" formed in the 1970s to discuss and resolve U.S.-Soviet arms control issues at the highest levels. The other members of

De Facto and De Jure Decision Makers

While groups of leaders emerged to fill the vacuum left by Brezhnev's incapacitation, certain individuals were more prepared and more effective in exploiting the resultant lack of formal structure at the top, as well as the profound need of most Soviet *apparatchiki* to be led. Certain individuals stand out in this process for different reasons. Marshal Grechko (Minister of Defense, 1967-1976), essentially a field soldier and in every sense a holdover from a simpler time, embodied the most conservative attitudes of the aging uniformed military leadership. For him, nuclear missiles were, above all, military weapons, and he resisted, with considerable effect, attempts by those who thought otherwise to change Soviet strategy and force structure to fit some other, more complex paradigm. Arrayed against Grechko were two capable, very powerful people who ultimately prevailed, in part at least, because they outlived him. (Even though overruled, many of Grechko's ideas lived on in the minds and hearts of the operational military well into the 1980s.) Professor Mstislav Keldysh, mathematician, mechanical engineer, and President of the Soviet Academy of Sciences, worked for survivability and against nuclear arms racing, because he thought the latter to be wasteful, self-destructive, and unrealistic. His opinion mattered because of the tremendous influence he exerted over the apparently dim-witted and ailing Brezhnev and the clever and powerful Ustinov. Ustinov, in turn, formed alliances with everyone, including his enemies such as Grechko with whom he shared a desire to build a large arsenal of weapons for reasons that had little to do with the military defense of the Soviet state. As will be discussed, Ustinov's preoccupation with production over strategy ultimately led him to oppose and then remove in 1984 his aggressive, intelligent Chief of the General Staff, Marshal Nikolai Ogarkov. How these personalities interacted to help formulate the strategy and force structure of the USSR deserves closer examination.

Marshal Andrei Antonovich Grechko, Minister of Defense from 1967 to 1976, emerges from the research in stark, bold colors. Very much a combat commander, a cavalry officer, of the era of the Great Patriotic War, Grechko's thinking about strategy and weapons was simple and forceful. More weapons are better than fewer; overdependence on any given type of weapon is very dangerous; and any strategy that relies on any factor other than overwhelming power used massively and preemptively is misguided. By

the Commission included Ustinov, Grechko, Smirnov, Gromyko, and Andropov—all of the key Politburo members on national security issues except for Brezhnev himself. Keldysh in effect, sat in for the General Secretary on such questions. See *Marshal and Diplomat*, p. 37.

strength of his ministerial positions, his personality (especially his simplistic single-mindedness), and his bureaucratic allies, Marshal Grechko was able to stalemate, postpone, or ignore numerous decisions proposed or taken in the 1960s and 1970s by the Ustinov-dominated defense policy group described above.

Grechko's very simple approach to strategy and preparation for war led him to advocate consistently the need to be prepared to destroy preemptively the enemy's nuclear arsenal and control systems to minimize the latter's ability to inflict damage on the USSR.²³⁴ Any strategy that assumed the Soviets would ride out and retaliate or launch under nuclear attack was to be strongly opposed: first, because it was inconsistent with the basic objective of preserving the Soviet state; and second, because such a strategy imposed difficult, if not impossible, requirements on Soviet missile forces and associated control systems in terms of survivability and control responsiveness. Consistent with this view, Grechko strongly opposed investment in survivability measures such as silo hardening and mobile missile launch platforms,²³⁵ apparently because such measures took resources from the building of still greater *numbers* of missiles and warheads to cover *all* important enemy targets (the only force building posture that makes sense in an essentially pure, first-strike strategy).

Most important, perhaps, investment in survivability promoted the kind of cautious, non-provocative mind-set that led to the horrible events following Hitler's attack on the Soviet Union in June of 1941.²³⁶ Predictably, Grechko generally opposed arms control measures, probably because they never would produce the asymmetrical Soviet advantages that would satisfy his sense of security against U.S. technological superiority. More important, perhaps, successful arms reduction agreements would tend to strengthen the position of advocates for limiting production and deployment of armaments—something to be opposed at all costs.

Finally, in both external and, more significantly, internal audiences, Grechko was the most outspoken opponent of any compromise of the Soviet declaratory position that *any* nuclear use against the USSR, its forces, or allies would result in a massive nuclear response from the USSR. As Gen. Danilevich explained Grechko's position, "He rejected all variants for limited use of nuclear weapons, and asserted that we would

²³⁴ Mozzhorin, April 1993, *Vol. II*, p. 123.

²³⁵ Illarionov, June 23, 1994, *Vol. II*, p. 84.

²³⁶ Mozzhorin, April 1993, *Vol. II*, p. 122.

respond to any use, in any geographic region, even if only tactical nuclear weapons, with a full-scale use of our nuclear potential, both strategic and tactical.”²³⁷

It is not surprising that an officer of Grechko's background and wartime experience held such extreme views. It is important to note, however, that he was able, for several years, both to dilute decisions and to reverse or postpone implementation of weapons and infrastructure programs that contradicted his position, even though such initiatives were supported by the Politburo.

A number of Soviet sources reported that defense and security issues typically were decided by a Politburo group slightly larger than the “troika” of Gromyko, Ustinov, and Andropov identified above. The composition of the core group varied slightly depending upon whether the issues under consideration related to specific weapons programs or to broader questions of strategy and policy. Sources from the Central Committee Defense Industry Department commented that a formal “structure” for political-military decision making *did not exist* but that real power in this area belonged to the “*piaterka*,” (the five), comprising for most of the 1970s and early 1980s: Marshal Dmitrii Ustinov (the informal chairman and dominant force) in his capacity as Secretary of the Central Committee for Defense Industry and, beginning in 1977, also as Minister of Defense; Andrei Gromyko, Minister of Foreign Affairs; L. V. Smirnov, Chairman of the State Military Industrial Commission (VPK); Iurii Andropov, Chairman of the State Security Committee (KGB); and Leonid Brezhnev, the General Secretary. While Brezhnev tended *not* to contribute in a substantive or constructive fashion, the General Secretary's position often was represented by his strategist-surrogate, Keldysh, regardless of whether Brezhnev was physically present.²³⁸ The membership of “the five” is virtually identical to that of a special group, called the “Politburo Commission,” formed in the early 1970s to support Soviet-U.S. arms control negotiations.²³⁹ The few differences are instructive. “The Politburo Commission” included: Ustinov, the commission chairman; Grechko, then Minister of Defense; Andropov, Smirnov, Gromyko, and Professor Keldysh. “The five” was then six, because Ustinov, Central Committee Secretary for Defense Industry, had not yet added control of the Defense Ministry to his portfolio, something which occurred in 1976 upon Grechko's death. Second, it is noteworthy that even though two

²³⁷ Danilevich, September 24, 1992, *Vol. II*, p. 40.

²³⁸ Illarionov, April 1993, *Vol. II*, p. 82.

²³⁹ Kataev, June 23, 1993, *Vol. II*, p. 99; and Summary of Narrative from Boris A. Strogonov, formerly of the Central Committee Defense Industry Department, March 1993, *Vol. II*, p. 132.

ministers, Grechko and Gromyko, and the chairmen of the powerful VPK and KGB were on the commission, Ustinov, neither minister nor state committee chairman, was at the helm of the core defense-policy decision-making group for resolution of arms control and related issues. Finally, Brezhnev himself was not even on the commission, his place, in effect, entrusted to Professor Keldysh.

A second group with a similar name but responsible for oversight of missile technology development and production shared members with "the five" and the arms-control "Politburo Commission." The collective, literally "the commission subordinated to the Politburo" (*Kommissiia pri Politburo*), formed in the late 1960s, was officially chaired by Brezhnev. His deputy chairman on the commission was Dmitrii Ustinov. The members included Minister of Defense Grechko; Vasilii M. Riabikov, Deputy Director of GosPlan for Defense; all of the ministers of defense-related industries (at least nine); and general designers and members of the Academy of Sciences from the various institutes involved in work for the defense industries.²⁴⁰ This commission served as a *de facto* political-military-industrial review committee, led by the most senior members of the Soviet Defense Council and composed of leaders of the industries and institutes over which they were to exercise oversight. As a Central Committee insider reported on the process, the decisions of the commission "were passed on for *pro forma* approval by the Defense Council, but were never amended by it. Issues were always debated in the commission and decisions made by a few individuals."²⁴¹ In Western parlance, the commission constituted a missile industry lobby in which the petitioners and government decision makers were on the same team.

Soviet testimony on political-military and military-industrial decision making reinforces the earlier observation *that no formal defense decision-making mechanism was operating in the Brezhnev era*. Soviet interview respondents, nevertheless, referred regularly to the "Defense Council" (*Sovet Oborony*), a state organization with formal authority to evaluate and make judgments on defense issues.²⁴² The Council met approximately three times a year.²⁴³ Its membership included at its core "The Five": General Secretary Brezhnev, Minister of Defense and Central Committee Secretary for Defense Ustinov, KGB Chief Andropov, Foreign Minister Gromyko, Military-Industrial Commission

²⁴⁰ Strogonov, March 1993, *Vol. II*, p. 132.

²⁴¹ *Ibid.*, p. 132.

²⁴² Danilevich, September 24, 1992, *Vol. II*, p. 52.

²⁴³ Kravets, June 22, 1993, *Vol. II*, p. 109.

(VPK) Chairman Smirnov, (and until his death in 1976, then Defense Minister Grechko). The basic membership of the Council, "8 to 10 people," also included the Minister of Internal Affairs and the Chief of the General Staff, the Chairman of the Council of Ministers (Kosygin for much of Brezhnev's tenure) and "several major military industrialists."²⁴⁴ It is worth noting that the Defense Council was the *only* defense decision-making group where the operational military was routinely represented by an operational uniformed officer, the Chief of the General Staff. (After Grechko's death, Ustinov, a life-long civilian military industrialist, was the only member of "the five" to represent the military, even though, as Gen. Gareev commented, he was far from being an Army person.²⁴⁵ Akhromeev matter-of-factly observed that, in 1976, "a civilian became defense minister.")²⁴⁶ The Defense Council, in other words, was *not a military* decision-making body. Until 1976, only two of its approximately 10 members were truly military; after 1976, only one. The chiefs of the five services, for example, did *not* normally sit on the Council. Even when the Defense Council's membership was expanded to support evaluation of special questions as occurred in June of 1969 when "50 - 60 people" participated, "top ranking military men" were invited, but they were far outnumbered by ministers of the branches of defense industry (at least nine), ". . . general and chief designers (no less than six), heads of the Central Committee and Council of Ministers apparatuses (possibly 20), and academicians from the Academies of Science of the USSR and the Ukrainian SSR."²⁴⁷

The General Staff then had a seat at the table in military policy making and force development only in the Defense Council, which, if some Soviet sources are to be believed, was simply a "rubber-stamping" military-political manifestation of the "rubber stamping" Party Politburo. The issues were worked out and the real decisions taken long before they reached the Council itself.²⁴⁸ In the June of 1969 meeting of the expanded Defense Council, Brezhnev was very disturbed that Grechko and Ustinov brought an issue to the Defense Council session (survivable missiles versus larger numbers of missiles) that had *not* been resolved in advance.²⁴⁹

²⁴⁴ Tsygichko, December 21 and 23, 1991, *Vol. II*, p. 153.

²⁴⁵ Gareev, *The Cold War and the Arms Race*, unpublished manuscript, April 1993, p. 16.

²⁴⁶ Akhromeev, *Marshal and Diplomat*.

²⁴⁷ Illarionov, April, 1993, *Vol. II*, p. 80-81.

²⁴⁸ Strogonov, March 1993, *Vol. II*, p. 132.

²⁴⁹ Illarionov, April 1993, *Vol. II*, pp. 81-82.

The real function of the Defense Council was essentially to advance and protect the interests of the military industrialists at the highest levels of the state and party leadership. A former director from the Aviation Ministry (and hence himself a military industrialist) expressed his conviction that the Defense Council was, in fact, "an instrument of the VPK [the Military-Industrial Commission of which Smirnov was Chairman]." ²⁵⁰ A senior analyst and department head in the principal analytical institute for the General Staff Main Intelligence Directorate (GRU) observed that American analysts generally underestimated the Military-Industrial Department of the Communist Party Central Committee, which, in his experience, "functioned as the *de facto* sitting Defense Council, setting military policy (*voennaia politika*)—which governed military doctrine and force development—and supported the formal Defense Council" Conversely, he believes that U.S. analysts generally overestimated the influence of the General Staff in military planning and force development. ²⁵¹

Rule of the Industrialists

Soviet sources emphasized the power of the defense industry, particularly in the late 1970s and early 1980s, in determining weapons acquisitions. They affirmed the view that the MoD, and in particular the General Staff, exerted relatively little control over the R&D and production processes. ²⁵² The Military-Industrial Commission (VPK), in contrast, dominated the Defense Council ²⁵³ and virtually dictated the types and numbers of weapons that the MoD and the armed services would receive. ²⁵⁴ The Central Committee relied heavily on the VPK for technical expertise. The VPK conducted preliminary studies on weapon systems and coordinated military production. ²⁵⁵ It prepared for decisions on weapons development and procurement by the Council of

²⁵⁰ Interview with Vladimir Rubanov, May 6, 1991, *Vol. II*, p. 127. Rubanov was an official in the Aviation Ministry.

²⁵¹ Tsygichko, December 21 and 23, 1991, *Vol. II*, p. 153.

²⁵² Interview with Col. Petr M. Lapunov, May 5, 1991, *Vol. II*, p. 117. Col. Lapunov was a Department Chief in the General Staff's Center for Operational and Strategic Research (TsOSI).

²⁵³ Rubanov, May 6, 1991, *Vol. II*, p. 127.

²⁵⁴ Batenin, August 6, 1993, *Vol. II*, p. 9; and Illarionov, June 23, 1993, *Vol. II*, p. 83.

²⁵⁵ Strogonov, April, 1993, *Vol. II*, p. 133.

Ministers, playing a substantial role in directing new R&D efforts,²⁵⁶ and defined what weapon systems and quantities of equipment were required and which production facilities would manufacture them.²⁵⁷

Promotion of the VPK's interests, in a series of cases, became an end in itself, Gareev remarked.²⁵⁸ Other former Soviet officials complained that as a result of VPK influence, obsolete weapons systems, including many obsolete missile systems, were kept in production and development of advanced systems was retarded.²⁵⁹ Soviet force building promoted production stability instead of innovation or fulfillment of the General Staff's operational requirements.²⁶⁰

Industrialists shaped decisions on weapons procurement primarily through the Defense Industry Department of the Central Committee. The Department comprised, according to Tsygichko, mainly defense industrialists, both chief designers and ministers responsible for arms production, and also political officers who served the Communist Party's interests inside the Armed Forces. A former senior official in the Central Committee Defense Industry Department, Vitalii Kataev, explained that the Department worked on the development of new weapon systems and organization of their series production. It had the largest say over decisions related to weapons procurement, and inside the Department, the interests of the defense industry carried more weight than those of the General Staff or the Ministry of Defense.²⁶¹ The Defense Industry Department constantly aimed to increase the output of weapons factories. When Kataev brought evidence of waste to the attention of the Department's leadership, he was told not to concern himself with those matters.²⁶²

Soviet arms production became even more supply-driven after Ustinov was promoted to the position of Defense Minister. Prior to 1976, the General Staff Directorate for Armaments Orders (*Upravlenie zakazov*) played a central role in shaping weapon programs. It made recommendations on the basis of which the General Staff allocated

²⁵⁶ Illarionov, April 1993, *Vol. II*, p. 80.

²⁵⁷ *Ibid.*, June 23, 1993, *Vol. II*, p. 83.

²⁵⁸ Gareev, June 20, 1993, *Vol. II*, pp. 75-76.

²⁵⁹ Stroganov, March, 1993, *Vol. II*, p. 133.

²⁶⁰ Interview with General Staff Col. Petr Lapunov, May 5, 1991, *Vol. II*, p. 117. Col. Lapunov is director of a department for force analysis, Center for Operational-Strategic Research (TsOSI) of the General Staff.

²⁶¹ Kataev, May 1993, *Vol. II*, p. 98.

²⁶² *Ibid.*

funding to the services and placed orders for weapons. In 1976, with Ustinov's approval, the directorate was taken out of the General Staff and reconstituted as an independent directorate of the Ministry of Defense. The VPK was allocated funds directly, and the services thereafter appealed to the MoD or directly to the VPK for funding.²⁶³ Disagreements between the VPK and the General Staff were constant, but the VPK almost always won the decision.²⁶⁴

Senior General Staff officers complained bitterly of Ustinov's tendency as Defense Minister to side with the military-industrial complex against the Armed Forces.²⁶⁵ Danilevich recounted that Grechko resisted pressure from the defense-industrial sector to procure certain weapon systems before they were fully developed, or if they failed to meet specifications. Ustinov, in contrast, would scold industrialists but in the end would give in to them. During Ustinov's tenure as Defense Minister, Danilevich asserted, strategic objectives often were subordinated to, and built around, weapon systems.²⁶⁶

The defense-industrial sector used its political clout to deliver more weapons than the armed services asked for and even to build new weapon systems that the operational military did not want. Efim Liuboshits, an analyst with over 30 years experience in the Strategic Rocket Forces' main institute [NII-4], wrote in *Krasnaia zvezda* that studies conducted in 1979 showed that the large number of missiles in storage exceeded by tenfold the number required for alert duty. Stocks of missiles reached surplus levels, he continued, because additional missiles were delivered at the initiative of industry even though the Ministry of Defense had not placed orders for them.²⁶⁷

In some instances, Kataev recounted, directors of production facilities approached Defense Minister Ustinov directly in an effort to sell their weapons. The Director of IuzhnoMash, Aleksandr Maksimovich Makarov, once visited Ustinov to ask him to take a few dozen more missiles. Ustinov replied, "What will we do with them, Aleksandr Maksimovich?" to which Makarov answered, "But if you don't, how will we feed the workers?" In the end, Ustinov took the missiles, even though the army did not really

²⁶³ Tsygichko, *Soviet Use of Mathematical Methods*.

²⁶⁴ Tsygichko, *Kommentarii k interv'iu*.

²⁶⁵ Danilevich, September 21, 1992, *Vol. II*, p. 36; and Gareev, June 20, 1993, *Vol. II*, p. 75.

²⁶⁶ Danilevich, September 21, 1992, *Vol. II*, p. 37.

²⁶⁷ *Krasnaia zvezda*, July 9, 1991, translated in JPRS-UMA-91-022, August 21, 1991, p. 35.

need them.²⁶⁸ Kataev asserted that the ongoing efforts of defense plants to expand production generated large stockpiles of military equipment. There were at different times, for instance, up to 4, 5, and, in the case of particular systems, 8 nuclear basic loads (*boekomplekty*) of naval strategic missiles. Submarines carried approximately 0.7 nuclear basic loads, and 1.5 nuclear basic loads per submarine would have sufficed.²⁶⁹

The defense complex developed several new weapon systems for which there was little demand, as illustrated by two examples. First, construction of aircraft carriers was opposed by many General Staff officers.²⁷⁰ Second, the Defense Ministry under Grechko resisted the development of mobile ICBMs, which Ustinov was pressing for.²⁷¹ The Iangel' design bureau in the early 1960s proposed development of mobile missiles as a response to the increasing accuracy of U.S. weapons. When the science committee of the Strategic Rocket Forces endorsed that proposal, Grechko disbanded the committee and stopped development of a rail-mobile missile complex.²⁷²

Retired Gen.-Lt. Nikolai Kravets, who worked for over 30 years on force design, systems acquisition, and testing and evaluation in the Strategic Rocket Forces, said that the Chelomei design bureau began to develop operational-tactical mobile missiles in 1964. Iangel' designed a longer range mobile missile that combined a liquid-fueled first stage with a solid-fueled second stage.²⁷³ He tested it in 1968 with terrible results—there was a massive explosion—and the program was canceled.²⁷⁴ Another mobile ICBM program was initiated in 1968 as Soviet scientists improved their competence with solid fuel.²⁷⁵

The military tried unsuccessfully to reduce the number of different types of missiles. The Soviet Union had a much greater variety of missiles than it needed. Kravets complained that in the internal competition among various chief designers and industrialists, each designer and industrialist ultimately had his own way. After development and testing, all

²⁶⁸ Kataev, May 1993, *Vol. II*, pp. 96-97.

²⁶⁹ *Ibid.*, pp. 97-98.

²⁷⁰ Gareev, June 20, 1993, p. 75.

²⁷¹ Strogonov, March 1993, *Vol. II*, p. 132; and Gareev, June 20, 1993, *Vol. II*, p. 75.

²⁷² Kataev, May 1993, *Vol. II*, p. 98.

²⁷³ Kravets, June 22, 1993, *Vol. II*, p. 110. NATO never had a designation for either the Chelomei or the Iangel' mobile missiles because these programs were very closely guarded and were successfully concealed from NATO.

²⁷⁴ Illarionov confirmed that the mobile ICBM program was canceled in 1968. See Illarionov, June 23, 1993, *Vol. II*, p. 84.

²⁷⁵ Kravets, June 22, 1993, *Vol. II*, p. 110.

competing missile systems, usually two but sometimes more, were put into production and then deployed. As a consequence, the USSR fielded up to 12 types of ICBMs simultaneously.²⁷⁶

In order to avoid slighting design bureaus, Kataev explained, missiles of the same class that were developed by different design bureaus were put into series production simultaneously. The SRF at one time had 10 different missiles serving the same mission. Kataev characterized this process as a kind of *internal arms race* carried out inside the defense sector.²⁷⁷ Kalashnikov repeatedly proposed a reduction in the number of different types of missiles to two or three, but his proposal was rejected by Ustinov, who was concerned about the unemployment such a measure would generate.²⁷⁸

When the Soviet leadership gathered in 1969 to choose whether to put the SS-17 into production or to build SS-19s, it ultimately produced both. Gen.-Col. Igor' Illarionov, a personal assistant to Ustinov from 1965 to 1984, recalled that the task of developing a second-generation MIRVed ICBM to counter Minuteman II was assigned to two design bureaus—Chelomei and Iangel'. Both designs were completed and ready for production by mid-1969.²⁷⁹

Soviet leaders, Illarionov continued, were interested in reducing the time required to launch Soviet ICBMs. Defense Minister Grechko and chief designers in the late 1960s reached the conclusion that the USSR lacked the capability to release a retaliatory strike before incoming U.S. weapons had already detonated. At the same time, Brezhnev was intent on increasing the time available for discussion and decision making by the Politburo during a crisis, because he wanted to avoid taking personal responsibility for issuing a launch order.²⁸⁰

A special meeting of the extended Defense Council, described by both Mozzhorin and Illarionov, was convened near Yalta in July 1969 to draw up a 15-year plan, or at least guidelines, for weapons procurement and, thereby, to establish central direction over a

²⁷⁶ Ibid., p. 110.

²⁷⁷ Kataev, May 1993, *Vol. II*, p. 97.

²⁷⁸ Kalashnikov, April, 1993, *Vol. II*, p. 92.

²⁷⁹ Illarionov, June 23, 1993, *Vol. II*, pp. 83-84.

²⁸⁰ Illarionov, April 1993, *Vol. II*, p. 80.

force building process that had become unguided (*neupravliaemyi*).²⁸¹ The meeting, chaired by Brezhnev, involved 50 to 60 participants, including general officers, Defense Ministry officials, ministers responsible for industry, chief designers, officials of the Central Committee apparatus, and academicians.²⁸²

Both Chelomei and Iangel' made presentations. The R-37 [almost certainly the SS-19] missile developed by Chelomei received support from Grechko, the Defense Ministry, the operational military, and Minister of General Machine Building Afanas'ev.²⁸³ Iangel' emphasized the innovations, particularly the survivability, of the MR-100 [presumably the SS-17] ICBM that he had designed. Chelomei apparently did not consider the protection of ICBM launchers to be worth the cost.²⁸⁴ The military officers paid little attention to the presentations and instead focused on the quantitative characteristics of the two missiles. The Chelomei missile had six warheads; the Iangel' missile carried four.²⁸⁵

The R-37 designed by Chelomei had a low survivability (*zashchitnost'*) rating and a low stability (*ustoichivost'*) rating, Kataev explained. Its overall reliability (*obshchaia nadezhnost'*) was rated at 90 percent. (The U.S. Minuteman missile, by comparison, was rated between 70 percent and 80 percent.) The overall system reliability rating in the Soviet rating scheme was the product of several factors—the missile's inherent stability, the hardness of onboard control and launch systems, silo design, the local and central control systems, and its vulnerability to nuclear attack (including to electromagnetic pulse - EMP)—that would affect a missile system's ability to launch and to strike its target in the aftermath of a nuclear attack. Kataev made clear that, by Soviet criteria, the Minuteman was systemically less reliable than the R-37 (even though, in the late 1960s, Minuteman was hardened to 20 kg/cm² (284 psi) versus the 2 kg/cm² (28 psi) of Soviet silos).²⁸⁶

²⁸¹ Kravets, June 22, 1993, *Vol. II*, p. 109. Kravets did not attend the July 1969 meeting but had staff responsibility for implementing its decisions in the SRF.

²⁸² Illarionov, April, 1993, *Vol. II*, pp. 80-81.

²⁸³ *Ibid.*

²⁸⁴ *Ibid.*

²⁸⁵ *Ibid.*, p. 82.

²⁸⁶ Kataev, June 23, 1993, *Vol. II*, pp. 99-100. Tsygichko's comments about Soviet military intelligence estimates of the overall vulnerability of U.S. land-based missile systems in the late 1960s suggest that silo, EMP, and control vulnerability were the primary factors contributing to the Minuteman's low rating. The Soviets seemed to have had great deal of respect for the Minuteman's accuracy and reliability, once launched. See Tsygichko, December 21 and 23, 1991, *Vol. II*, p. 151.

The MR-100 missile by Iangel' was favored mainly by proponents of ICBM survivability²⁸⁷—Ustinov; most of the chief designers; Mozzhorin, Director of TsNIIMash; Ivan Serbin, Head of the Central Committee's Defense Industry Department; Professor Keldysh, President of the USSR Academy of Sciences; and other academicians.²⁸⁸ Keldysh argued that the choice between the two ICBMs stemmed from the doctrinal question of first- versus second-strike and that the USSR should acquire an effective second-strike capability in order to deter U.S. first use of nuclear weapons. Brezhnev instructed Ustinov and Keldysh to prepare a draft decision (*proekt resheniia*), and they worked out a compromise whereby both the SS-17 and the SS-19 entered production. The compromise reflected Brezhnev's indecisiveness²⁸⁹ but, in the view of Soviet experts, was costly and militarily unnecessary.²⁹⁰ The Defense Council agreed to manufacture both ICBMs but adopted Keldysh's proposal, which in practice amounted to a military doctrine,²⁹¹ outlining the requirements for strategic missile systems. When the signatures were collected, Grechko tried to delay the decision by hiding from Serbin when Serbin arrived at Grechko's dacha. Grechko left his dacha through the back door and did not return for several hours.²⁹²

Strategic Consequences

The volume of arms production in the USSR was conditioned by the internal dynamics and logic of the vast, civilian-dominated defense-industrial establishment. By contrast, qualitative advancements in technology and weapons systems seem to have been more directly products of confrontation and competition with the U.S. During the 1950s and early 1960s, the Soviets invested heavily in the research and development of new technologies, including ballistic missile submarines and SLCMs. However, many of these programs were curtailed in the early 1960s when heavy emphasis was placed on the production of land-based ICBMs.²⁹³ Beginning in the early 1960s, emphasis began to shift away from design and development of systems to production. There is evidence that the VPK and the Central Committee's Defense Department began to stress copying of

²⁸⁷ Illarionov, June 23, 1993, *Vol. II*, pp. 84-85.

²⁸⁸ *Ibid.*, April 1993, *Vol. II*, pp. 81-82; and June 23, 1993, *Vol. II*, p. 85.

²⁸⁹ *Ibid.*, April, 1993, p. 82. General Danilevich observed, with a certain frustration and black humor, Brezhnev's indecisiveness and timidity when required to launch a scripted nuclear strike in the course of a major exercise in 1972. See Danilevich, September 21, 1992, *Vol. II*, p. 27.

²⁹⁰ *Ibid.*, p. 83; and Kalashnikov, April 1993, *Vol. II*, pp. 93-94.

²⁹¹ Illarionov, April 1993, *Vol. II*, p. 81.

²⁹² *Ibid.*, p. 82.

²⁹³ Danilevich, December 18, 1990, *Vol. II*, p. 21.

foreign technologies and systems, rather than supporting domestic R&D.²⁹⁴ Almost all sources stated that during the period in question, new systems were developed primarily in reaction to developments in the U.S. The Soviets followed the U.S. lead in many technological areas, including MIRVs, missile accuracy, SLCMs, and other types of cruise missiles, intelligence systems, early warning systems and command and control, neutron weapons, low frequency, enhanced EMP, and other exotic weapons.²⁹⁵ SDI was often cited by sources as a prime example of the Soviets being forced to play technological catch-up. An important exception to this pattern was the development during the late 1970s of the SS-20 IRBM, a mobile, solid-fuel, multiple warhead missile that was a strategic and technological breakthrough for the Soviets which gave them a significant advantage in Europe. Another exception was the eventual development and deployment of the SS-25 mobile ICBM, which gave the Soviets a survivable land-based nuclear force.

The industrialists' domination of the force-building process seems often to have worked against innovation and qualitative improvement of weapons. Because stability and continuity of production were the governing imperative, the defense-industrial establishment resisted changes which threatened to disrupt this continuity. The bureaucracies of the defense industrial ministries were generally reluctant to introduce innovations into industrial production, thereby disrupting established manufacturing processes leading to production downtime and risking political fallout from failure in the attempt. Kalashnikov recalled many "titanic battles" between the military and the VPK and industrial ministries over the quality of weapons and related systems. For example, the Ministry of Radio Industry strongly resisted the introduction of signal scrambling (*shumoobraznye signaly*) devices for Soviet naval communications. Kalashnikov became convinced of the need to introduce these devices in the early 1980s after talking with Admiral Lobov, then commander of the Northern Fleet. Lobov described shadowing a U.S. fleet on maneuvers and not being able to pick up any radio traffic. A tremendous battle ensued between Mozhorin and the MoD on the one hand, and the Minister for Radio Industry, Kolmykov, on the other. The dispute was resolved in favor of creating

²⁹⁴ Almquist, Peter. *Red Forge: Soviet Military Industry Since 1965* (New York: Columbia University Press, 1990), p. 79.

²⁹⁵ Danilevich, September 21, 1992, *Vol. II*, p. 33.

the new technology only after proponents won support from the Soviet chief arms negotiator, who argued that introduction of such a capability would strengthen the Soviet negotiating position.²⁹⁶

The Soviet interviews portray the VPK pursuing its own interests rather than servicing the military's needs, and thus, they contradict the "military missions" interpretation of Soviet weapons acquisitions. The interviews do support interest group models. One interest group model overemphasizes agreement between the Armed Forces and the defense industry but accurately notes the general convergence in the aims of the Politburo and the military-industrial complex. Another interest group model corresponds most closely to the new information coming out of the Soviet interviews. The efforts of the VPK, particularly the designers, to ensure stable weapons development and production processes appear to have been the primary cause of the USSR's arms buildup.

²⁹⁶ Kalashnikov, April, 1993, Vol. II, pp. 88-89.