

## V. CONCLUSIONS

The accounts by former Soviet General Staff officers and government officials of their experiences in helping to formulate and implement defense policy during the Cold War, when compared to U.S. assessments of that time, suggest that U.S. analytical efforts correctly identified basic Soviet military aims but in some cases seriously misjudged Soviet intentions. The analytical errors arose partly from a misunderstanding of the bureaucratic forces at work in the decision-making process in Moscow or from differences between the U.S. and the Soviet uses of quantitative analysis. Inaccuracies in U.S. assessments tended to exaggerate Soviet aggressiveness, but they probably exerted little influence in stimulating the arms race, because the Soviet strategic weapons buildup most likely would have proceeded apace regardless of whether or not the U.S. increased its nuclear forces. The U.S. probably exercised greater influence over the qualitative aspect of the arms race. The Soviet economic capacity to sustain the competition was greatly strained by attempts to keep up with U.S. modernization of weapons and introduction of new technologies through increases in production of weapons systems.

Most policy makers and analysts in Washington correctly identified the fundamental tenets of Soviet nuclear doctrine. They recognized the Soviet leadership's doubts about surviving nuclear exchanges and its interest in avoiding nuclear war. They understood that in the event of an East-West conflict, the USSR would try to keep hostilities at the conventional level for as long as possible. The primary military purpose of Soviet nuclear forces was to deter a U.S. attack. The Soviet High Command developed nuclear warfighting capabilities in preparation to fight if deterrence failed. Many U.S. officials and experts also noted that the Soviet Union was striving for strategic superiority.

In some cases, U.S. observers seriously misjudged Soviet intentions. A few U.S. assessments underrated the assertiveness of Soviet behavior. They argued that the USSR accepted strategic parity and mutually assured destruction.

More often, U.S. assessments erred on the side of overestimating Soviet aggressiveness. A number of officials mistakenly believed that in the event of a theater nuclear war the Soviet High Command planned to escalate to the global level. Analysts tended more than officials to exaggerate the Soviet military threat. A small but vocal group of analysts, for example, expressed the conviction that the Soviet Union was prepared to initiate nuclear use and to fight a nuclear war with the expectation of winning. They justified their views

largely based on the activities and pronouncements of an influential element in the Soviet leadership (to include the Minister of Defense Grechko) that ultimately did not dominate the Soviet decision process.

Virtually every U.S. observer underestimated the influence of the Soviet defense industry, particularly the Military-Industrial Commission (VPK) and the Defense Industry Department of the Central Committee. As a result, U.S. analysts perceived greater military planning and design behind the USSR's arms buildup than probably was justified. Missile deployments in the 1970s, for instance, gave the impression to some of the most astute U.S. experts that the Soviet Union was developing the ability to initiate limited nuclear strikes, when in fact, missiles continued to roll off Soviet production lines largely to satisfy the interests of the defense industry. The military-industrial sector typically manufactured a larger number and wider variety of weapons than requested by the General Staff and Ministry of Defense. Although the Soviet attempts to outpace U.S. strategic deployments naturally preoccupied U.S. observers, most officials and analysts failed to seriously consider the possibility that the USSR might be significantly more aggressive in its force building than in its nuclear strategy.

Underestimation of the power of the defense industry contributed in some measure to inaccuracies in U.S. assessments of Soviet strategy. Analysts who overlooked the VPK's influence, for example, were more likely to conclude that the USSR sought strategic superiority largely for military reasons, including to enhance its capability to wage nuclear war.<sup>297</sup> Similarly, the Soviet buildup of theater nuclear forces, particularly of tactical nuclear missiles, was considered by a significant part of the U.S. analytical community to be an indication of Soviet development of limited nuclear options, when in fact, the General Staff had generally opposed deploying tactical nuclear missiles and had very little interest in initiating limited nuclear strikes.

Misunderstanding of Soviet military intentions was also the result, to a certain extent, of differences between the U.S. and Soviet conclusions drawn from similar quantitative analysis regarding the effects of nuclear weapons. U.S. scientists, for instance, calculated less lethal effects from blast overpressure than their Soviet counterparts did, and

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<sup>297</sup> *The Report of Team B*, pp. 2-3, seems to associate the USSR's efforts to acquire nuclear superiority with a Soviet aim to develop the capability to fight and win a nuclear war. This, of course, left the *fact* of the massive Soviet capability, regardless of its origins, as the main threat, a capability, which in the hands of a malevolent or irrational leadership could, in any case, destroy the Western world.

therefore, they failed to recognize the Soviet expectation of high fatalities and slow rates of advance in a Soviet offensive in Europe.

(b)(1),(b)(2)

As a consequence, most U.S. observers failed to appreciate the depth of Soviet concern about silo vulnerability, and they mistakenly thought that launch times of Soviet missiles were reduced in order to carry out preemption rather than to enhance the credibility of Soviet retaliation (or launch-under-attack).

Senior Pentagon and White House officials achieved, on balance, a more accurate reading of Soviet strategic intentions than the experts did. On the one hand, some incorrectly concluded that the USSR was prepared readily to expand a theater nuclear war into a global nuclear war. On the other hand, U.S. officials accurately noted the Soviet leadership's aim to achieve strategic superiority and also understood that the Soviet Union had moved away from preemption. A few vocal analysts, not policy makers, were primarily responsible for propagating the alarmist (and false) view that the USSR was ready, if not eager, to initiate, and expected to win, a nuclear war.

Policy makers proved more successful than the analytical community in correctly identifying Soviet aims, apparently because they made selective use of the analyses available to them. Most officials considered the quality of the analysis they received to be mixed. To support their decisions, they took the time to examine data on their own, and they listened to the few Soviet area specialists who, they believed, offered the most sensible interpretations of Soviet strategic policy.<sup>298</sup> Expertise in Soviet affairs was not allowed to supplant common sense and sound judgment in deciphering Soviet motivations for the purpose of making policy decisions.

The mistakes made in assessing Soviet nuclear forces and strategy apparently had little impact on the course of the arms race. The U.S. government understood the main tenets of Soviet nuclear doctrine, and partly as a result, averted both nuclear war and direct armed conflict with the USSR. In fact, U.S. observers underestimated the extent to which

<sup>298</sup> Brown, November 8, 1991, *Vol. II*, p. 13-14; Brzezinski, November 21, 1991, *Vol. II*, pp. 16-17; Iklé, December 11, 1991, *Vol. II*, p. 77; McDaniel, November 12, 1991, *Vol. II*, p. 120; and Schlesinger, October 29, 1991, *Vol. II*, pp. 128-130.

the Soviet leadership was deterred from using nuclear weapons, as evidenced by the doubts of Soviet specialists about the ability of the C<sup>3</sup> system to release more than a fraction of surviving forces after a nuclear attack or by the trembling hand of Brezhnev at the 1972 exercise which simulated nuclear war.

U.S. official and unofficial assessments tended on balance to exaggerate the aggressiveness of Soviet intentions, which helped to spur U.S. nuclear weapons procurement, but even if the assessments had been more accurate, the outcome most likely would have been much the same. No matter what military objectives lay behind the USSR's nuclear arms buildup, it was large enough to present a cause for serious U.S. concern. Furthermore, the growth of Soviet strategic capabilities seemed to embolden the Soviet Union's expansionist policies, so the United States had good reason to counter not only the USSR's expansionist moves around the world but also Soviet nuclear force deployments.

Inaccurate U.S. assessments probably did little to stimulate the arms race mainly because Soviet behavior was fairly unresponsive to U.S. actions and policy statements from the mid-1960s to the early 1980s. The Brezhnev Politburo was striving for strategic superiority, and Soviet nuclear weapons procurement was directed largely by a defense industrial class interested in keeping design bureaus and arms manufacturers occupied in an ultimately self-destructive pattern of expansion. A slowdown in U.S. deployments or a change in the U.S. nuclear force structure, therefore, was very unlikely to have altered Soviet decisions.

## **Appendix A: A Chronology of Soviet Strategy**

### **Full Mechanization: 1945 - 1950**

The immediate post-WWII period was devoted to completing the mechanization and modernization of all branches of the Armed Forces, absorbing the lessons of the war and consolidating them into a doctrine. Soviet strategy emphasized the use of massive conventional armored land forces to gain a threefold to sixfold advantage over the opposing forces and to defeat them with fast, decisive offensive ground actions. Air and naval forces were modernized and strengthened through the introduction of jet aviation and modern air defenses but continued to play a supporting role.

### **Acquisition of Nuclear Weapons: 1950 - 1960**

By 1950, the Soviet Union had acquired the atomic bomb. At first, nuclear weapons were seen primarily as anti-city weapons, but their strategic and tactical importance was quickly recognized. By 1955, nuclear weapons had supplanted the tank as the central strategic weapon.

Despite the central role of nuclear weapons, their acquisition did not immediately lead to a revolution in military thought. Rather, at first nuclear weapons were absorbed into the existing structure of WWII strategic and operational thinking. Like the tank before it, nuclear weapons would be used to achieve a strategic breakthrough on the battlefield, which would be exploited by a massive conventional steamroller advancing at 20 - 30 km per day. The new doctrine was even more clearly offensive in nature. Strategic defensive plans were non-existent.

### **“Nuclear Euphoria”: 1960 - 1965**

The revolution promised by nuclear weapons arrived with Khrushchev. A strategy emerged based on global and theater preemptive nuclear use. Nuclear weapons gained in importance almost to the point that all other weapons were seen as superfluous. The Strategic Rocket Forces (SRF) were created as a separate military branch. Aviation, especially the massive fighter force, was sacrificed, as was artillery, which was replaced by tactical nuclear forces. Khrushchev even considered reducing the armored forces,

because they were deemed unnecessary. Defensive actions, including Front- and army-level defense, were now totally and explicitly rejected. Defense was seen to be possible only on the level of tactical maneuvers.

The new thinking found its most vocal advocate in Marshal V. D. Sokolovskii, who lectured on the new strategy at the General Staff Academy in 1962 and edited the influential book, *Military Strategy*. These ideas were embraced as doctrine at a Ministry of Defense conference in the same year and were put into practice during exercises in 1962 and 1963. The core of the strategy was an attack in two phases.

The first phase involved an intercontinental preemptive strike against the U.S. The plan to use Cuba as a base for intermediate-range missile attacks on the U.S. had backfired during the "Caribbean Crisis." However, the new R-16 missiles gave the USSR a limited ability to strike U.S. territory.

The second phase involved a single, strategic offensive along the entire Front, with the use of preemptive nuclear strikes, followed by a decisive, uninterrupted land advance. R-12 and R-14 medium range stationary missiles would be used to attack strongpoints in Europe. Although their numbers were relatively small, these missiles carried powerful 1.8 and 2.4 megaton warheads. Following the nuclear strikes, land armies would sweep west, using envelopment, cleanup, and other offensive operations. The rate of advance was now planned to be 40 - 100 km/day and the entire strategic operation was expected to take no more than 10 days.

Such optimistic forecasts were made based on the assumption that the opponent would be preempted in his use of nuclear weapons. Missile technology of that era put a heavy premium on preemption because the long time required to fuel the missiles and attach their warheads made a "retaliatory-meeting strike" impossible and a purely retaliatory strike highly unlikely.

### **"Descent to Earth" and ICBMs : 1965 - 1975**

With the ouster of Khrushchev, conservatism and realism returned to military thought. Their return was marked by the realization that the usefulness of nuclear weapons had been overestimated, and by the acknowledgment that the enemy had a large number of nuclear weapons which could cause "unrecoverable losses." The new thinking proclaimed that a single type of weapon cannot be relied upon to achieve victory and that

each type of weapon, including conventional weapons, has an appropriate role in war. Conventional forces, decimated during the Khrushchev period, began to be restored. Greater attention began to be paid to strategic theater operations, which were broken down among several Fronts and included expanded naval and air operations, as well as strategic anti-air operations. It was no longer thought possible to conduct a one-stage strategic operation. The strategic advance was divided into two operations—the advance to Germany's western border, and the advance to the English Channel. The rate of advance was scaled back, with the projected time for the conquest of Europe pushed back to 1 month. Defense was gradually revived, first on the level of army, then Front, and finally, around 1972 - 1975, on the strategic level.

Despite the changes, war was still seen to be ultimately nuclear. A purely conventional war was not seen as a realistic possibility. However, technology and experience bred a greater sophistication of thinking regarding the use of nuclear weapons. The growth in the strategic arsenal and the beginnings of a secure second-strike capability on SLBMs, made possible options for Strategic Forces operations. Instead of a single massive salvo, multiple nuclear strikes were now planned.

Also during this period, a clearer appreciation of the devastating consequences of a full-scale nuclear exchange began to emerge. At a nuclear exercise in 1972, Brezhnev, Podgornyi, and other high-ranking Politburo members were presented with the results of a simulated U.S. first strike using ground bursts against the Soviet Union. The simulated damage shocked the leadership: 100 percent of non-strategic aviation wiped out; 100 percent of ground forces wiped out; 80 percent of strategic aviation destroyed; 100 percent of naval forces destroyed; the European part of Russia suffers radiation contamination from fallout with levels of 400 - 3,000 roentgens.

Meanwhile, ferment in strategic thought in the U.S. yielded new theories of escalation, flexible response, limited use, etc. At first the Soviets considered these theories to be unrealistic and strongly rejected any notion of a limited nuclear war. Officially, Soviet policy was to respond with a full nuclear attack to even a single hit. However, from 1970 to 1975 the position shifted away from rejection toward the necessity of a "controllable conduct of nuclear war." In concrete terms, this shift manifested itself in three doctrinal changes.

A preemptive strike was no longer the only option. Retaliatory-meeting and retaliatory strikes became valid options.

Multiple-scenario strikes were developed: either global, or regional, depending on the military situation.

A "new periodization of war" was developed. The course of the war was expanded to four stages: a non-nuclear phase, a nuclear phase, follow-up actions, and concluding actions. Of these, the most important addition was the non-nuclear phase, which gradually grew in length from several hours to 7 - 8 days. Still later, it was planned that the first frontal operations would remain non-nuclear up through the advance to the Rhine. Intercontinental strategic operations, however, remained nuclear.

### **Strategic Balance: 1975 - 1991**

This long period was characterized by rough parity in strategic systems between the two superpowers, rapid growth in both sides' nuclear arsenals and bitter technological competition. Although the Soviets still lagged behind in C<sup>3</sup> and silo protection, a series of technological advances greatly expanded Soviet strategic capabilities. A new, more efficient method of "direct drilling" was developed, which allowed 200 silos to be built every year. Missiles with self-contained fuel tanks [*ampulizirovannye rakety*] and, later on, solid fuel missiles reduced ready times to 1 - 2 minutes. Strategic bomber aviation was advanced with the deployment of the Tu-16 and Tu-22 bombers. The Soviets very quickly matched and surpassed U.S. MIRV technology. By the end of the 1970s the development of the R-18 and R-36 gave the Soviets a throw-weight of over 20 tons, surpassing the U.S. capability.

The period can be broken down further into three parts, each of which saw profound changes in the Soviet military doctrine as a result of technological and political developments:

At first, limited nuclear war was still officially rejected, but it was now considered possible to conduct the war at the conventional level from beginning to end.

Later, limited nuclear war was now accepted in documents and planning for options presented to the political leadership. Different options became available for use of nuclear weapons during the new limited phase: only on the battlefield; only against



military targets; limited strategic strikes; proportional retaliation to limited strikes (either with escalation or de-escalation). Gradually, the projected length of the limited phase was expanded from hours to several days.

Finally, there was adoption of a defensive doctrine and realization that a nuclear war cannot be won. Preemptive strike was ruled out—only retaliatory strike remained. The new foundations of doctrine becomes: deterrence, war prevention, and limited war, if war must be fought.

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