

SUMMARY OF NARRATIVE

Subject: Vitalii Leonidovich Kataev

Position: Former Senior Advisor (1967-1985) to the Chairman of the Central Committee Defense Industry Department (Renamed "Defense Department" in 1991) of Central Committee of CPSU responsible for strategic arms and defense policy, arms control negotiations, and military doctrine

Location: Institute for Defense Studies (INOBS), Moscow

Date/Time: May 1993⁷⁰

Language: Russian

Prepared by: Ellis Mishulovich, based on audio cassette tape

Note: Also present: Viktor Popov, former senior staff member of the Central Committee Defense Industry Department.

Since the times of Stalin, decision makers worked in very close contact with the chief designers. Most chief designers were very erudite, capable people who understood well the problems facing the country, the economic constraints, and the scientific aspects of the problems. The military industrial complex absorbed the best technical and scientific capabilities of the state. The benefits and privileges inside the complex were also greater. In the end these circumstances gave the complex its own life which contributed to the fact that, despite the lack of necessity for massive series production of armaments, and without any military actions in which these arms were depleted, arms were stockpiled and the industry continued to grow independently of military needs. In the 1970s and 1980s certain branches of industry, such as the munitions industry, grew at three or four times the rate of the defense industry as a whole.

The defense industry never accepted simple solutions. Changes were made only in favor of the growth of the complex. All intelligence assessments of the probable opponent were skewed in favor of the maximal threat when they were made available to the leadership. The principle was always that it is better to overestimate than to underestimate the opponent. Our retaliatory measures were always taken in response to the opponent's maximal capability.

The corps of directors [comprised of directors of major defense conglomerates or "NPOs"]⁷¹ also helped to maintain high production levels. When the military was fully saturated with heavy strategic missiles, there were concrete instances when directors of production facilities, such as the director of IuzhMash, Makarov, would visit Minister of Defense Ustinov and would say: "Dmitrii Fedorovich, please take a few dozen missiles." And Ustinov would reply, "But what will I do with them, Aleksandr Maksimovich?" To which the director would reply, "But if you don't, how will I feed the working class?"

⁷⁰ INOBIS carried out the interviews resulting in this narrative at various times during the months of May 1993.

⁷¹ NPO — *Nauchno-proizvodstvennoe ob'edinenie* — Scientific-production conglomerate.

And Ustinov would take the missiles, which the army did not really need. But they were produced, and the Ministry of Defense had to buy them.

The army and the industry had a common interest in producing more and more powerful systems in greater and greater numbers, independent of changes in the international environment. And the pressure to produce was greatest on the most sophisticated kinds of systems, especially on the strategic systems. So, in the structure of the defense industry, space, missile building, and aviation accounted for 34% of all specialists; communications and radio electronics took up 20%; shipbuilding took up 9%; artillery, munitions, and small arms took about 12%. Only 55% of the capacity of the defense complex was employed in the production of military goods. 40% was employed in the production of civilian industrial and consumer goods. For example, at the Ural Railroad Car Plant in Nizhnii Tagil—the largest tank plant in the world—the proportion of defense production was 64%; at the Votkinsk missile technology plant, the proportion was also 64%; at Volgograd's "Barricade" works, which produced missile launch equipment and artillery, it was 72%; some of the shipbuilding plants were 80 - 95% dedicated to defense production.

Although generally speaking the defense industry was a monolithic structure, there were occasional rifts. While some designers were orthodox in their thinking, others were not. For example, the question of protection of strategic missile complexes led to a drawn-out debate. Iangel' and some other designers proposed to create silo-based, protected strategic missile complexes, with protection of at least 100 atmospheres. This proposal was opposed by some designers, including Rudiak,⁷² who insisted on retaining the old silo design, with in-silo engine startup, and which were not well protected against nuclear attack. As a result of lobbying by Iangel', Glushko and Piliugin, Rudiak was removed from his position.

The need to get ahead was not always determined by military necessity or by the scientific capabilities of the design bureau. It was largely determined by the military-technical leadership. In the early 1960s the well-known Miasishchev aviation design bureau was transferred to the Chelomei missile design bureau, where Khrushchev's son was working. Khrushchev relied on the information supplied by his son, which gave Chelomei great advantage. His missiles were not bad, and were highly esteemed by the troops for their reliability, ease of use, and good design. In order to avoid slighting the other design bureaus, their missiles, which were of the same class as Chelomei's, were also put into series production simultaneously. This caused some difficulty in the Rocket Forces, which at one time had more than 10 different missiles serving the same mission. This led to a kind of internal arms race inside the defense industry, which did not always adequately reflect the country's defense requirements. Of course, this arms race was defended on a theoretical basis, found expression in mini-doctrines of development of one kind of technology or another, and was supported by those members of the military who always believed that there could never be enough weapons.

The defense plants never stopped production of defense goods, but rather aimed to increase production, independent of the demand, which led to the stockpiling of expensive technology. For example, there were at different times up to four, five, and, in the case of particular systems, eight nuclear basic loads [*boekomplektov*] of naval strategic missiles. The submarines themselves permanently carried approximately 0.7

⁷² Authors were not able to identify this person in the military-industrial sector.

nuclear basic loads, which was quite sufficient for all sorts of testing, etc., as was also the case with the American side. Not more than 1.5 nuclear basic loads would have been sufficient.

While working in the Defense Department of the Central Committee, I attempted to bring these facts to the attention of the leadership, but was simply told not to concern myself with these matters. The work of the Defense Department aimed constantly to increase weapons production, to make sure that the technological level of the weapons being produced did not fall behind that of our probable opponent. The role of the Defense Department was limited to the development of new kinds of weapons, organization of their series production, and their transfer to the active forces. Use of new systems and their incorporation into the force structure was entirely the role of the military. What the army did with their weapons was not under the control of the specialists inside the Defense Industries Department. The traditional approach inside the Defense Industries Department, which dated back to the days of Stalin, was that the customer, that is to say the MoD, is always right. However, what was meant by the MoD was often the view of the Minister of Defense. This subjective view was the decisive one in the creation of new weapons systems and in the arms race in general. So, for instance, in the early 1960s the Iangel' design bureau suggested responding to the Americans' increasing accuracy by designing mobile missiles which would in effect counter accuracy by creating uncertainty about the location of our missiles. It should be noted that with the appearance of the highly precise MX missile, we faced a significant gap in retaliatory capability using silo-based missiles. Bringing on-line the mobile missiles eliminated this shortcoming. When the science committee of the Rocket Forces agreed with this view, Minister of the Defense Grechko disbanded the committee and unilaterally rejected the rail mobile missile complex, thereby stalling its development by 10 to 12 years. If the decision to develop these mobile missiles had been made in the mid-1960s, as was planned, it is doubtful that the U.S. would have invested in the MX. In this case we [Soviets] would not have invested in various other countermeasures to the MX.

In practice, our government did not have a structure for making important political-military decisions of this type. Such decisions were made by the top three or four leaders: the Secretary of the Central Committee, the Minister of Defense, the Central Committee Secretary responsible for the defense industry, and the Chairman of the Military-Industrial Commission (VPK). However, these decisions were not always made based on a balanced discussion of options. For example, the decision to build the Krasnoiarsk radar site was made by this troika or foursome in violation of the ABM Treaty. But this was easily demonstrated, and in the end led to the liquidation of this site. A similarly thoughtless decision was made regarding the deployment of Pioneer [SS-20] missiles in the European part of the USSR. In response to this we got the Pershings, which led to a complete strategic destabilization in Europe and we later had to liquidate these missiles at great political and economic loss to us.

RECORD OF INTERVIEW

Subject: Vitalii Leonidovich Kataev

Position: Former Senior Advisor (1967-1985) to the Chairman of the Central Committee Defense Industry Department (Renamed "Defense Department" in 1991) of Central Committee of CPSU responsible for strategic arms and defense policy, arms control negotiations, and military doctrine

Location: Institute for Defense Studies (INOBIS), Moscow

Interviewer: John G. Hines

Date/Time: June 23, 1993, 3:30 p.m.

Language: Russian

Prepared by: John G. Hines, based on notes

Note: Also present: Viktor Popov, former senior staff member of the Central Committee Defense Industry Department.

Q: In your narrative discussion, you indicated there was no formal structure for political-military decision making but that a "troika," or perhaps a foursome of top officials actually made such decisions; the Defense Minister, the Central Committee Secretary for defense industries, the Chairman of the Military Industrial Commission (VPK), and the Secretary, I assume General Secretary, of the Central Committee. In our earlier discussion you and Viktor Popov mentioned the "piaterka" [the five] who had the final say on defense issues. The five you mentioned were: Smirnov, Chairman of the VPK; Ustinov, the Minister of Defense and Secretary for Defense Industry; Gromyko, Minister of Foreign Affairs; Andropov, the head of the KGB, and Brezhnev, the General Secretary.

A: The broader "piaterka" with Andropov and especially Gromyko was more likely to be involved on defense questions that went beyond the interests of only the military or the industrialists, questions related to doctrine and high-level, international decisions related to arms-limitation negotiations.

Q: It has come up in earlier discussions that the Chelomei missile [SS-19] presented for decision in Yalta in July 1969 was assessed to be less reliable than the Iangel' missile [SS-17]. What determined the reliability [*ustoichivost'*] of a missile system?

A: First of all, Chelomei's missile had a low survivability [*zashchitnost'*] rating, low reliability [*ustoichivost'*] rating, and an overall reliability [*obshchaia nadezhnost'*] rating of 90%. (The Minuteman was rated between 70% and 80%.) The overall reliability is the product of several factors—the missile's inherent stability and the hardness of onboard control and launch systems, the silo, the local control system, the central control system, especially to include its survivability and the survivability of the control links under nuclear attack (including Electromagnetic Pulse, EMP)—that would affect a missile system's ability to launch and strike its target in the aftermath of a nuclear attack. Kataev made clear that, by Soviet criteria, the Minuteman was systematically less reliable

under or after attack than the SS-19 (even though, in the late 1960s, Minuteman was hardened to 20 kg/cm² [284 psi] versus the Soviet Union's 2 kg/cm² [28 psi]).

Q: In your calculations, what assumptions did you make about U.S. intentions and capabilities to launch against the Soviet Union?

A: We assumed that the U.S. would launch first and, given your focus on accuracy and relatively smaller yields per warhead, that you intended to strike our weapons and control systems in an attempt to disarm us.

Perhaps the single most important factor affecting our calculations was the accuracy of your strategic missiles. In our estimation, the U.S. began its pursuit of very high accuracy in 1963 in what we called the MX program. Your determination to increase warhead accuracy led us to be more and more concerned about the survivability of our systems. By 1965 we had decided to develop mobile ICBMs. By the early 1970s, we were to have tested the first rail-mobile system. Grechko, however, canceled the mobiles program.

Nuclear power [*iadernaia moshch'*], in our assessments, is a function of yield, number of weapons, and accuracy. Accuracy can have a decisive effect as a multiplier to greatly increase the effective power of a nuclear missile. Several factors, especially accuracy, for example, increased the power of the U.S. nuclear arsenal by a factor of three in the years leading up to difficulties associated with RIA^N [*Raketno-Iadernoe Napadenie*—nuclear missile attack] in the early 1980s.

Q: Could you expand on the role of the "Dead Hand" missile communications system?

A: "Dead Hand" represented one of two trigger mechanisms on a basic system of command missiles [*komandnye rakety*] designed to launch Soviet ICBMs. The basic command-missile system is comprised of a command missile or missiles deployed near, but not in, clusters of silos. The command missiles are well concealed, physically hardened well beyond the hardening of weapons launch platforms and especially well hardened against damage from electro-magnetic pulse [EMI—*elektro-magnitnyi impul's*]. Each command missile is linked in its communications package with a specific set of launch platforms. Upon command, the missiles are launched into near space from which each missile transmits launch orders to that cluster of ICBMs to which it is linked. (The scenario under which the system would be used assumes that all ICBMs are retargeted from enemy missiles to objectives that have economic and infrastructure value.)

There are two means by which each command missile might be launched to transmit its message to the ICBMs. The first is under positive control from the central control system. The decision is taken to launch and the time before impact of the enemy's strike is seen to be insufficient to permit normal launch procedures. The second is the "Dead Hand" launch mechanism. Under the "Dead Hand" mechanism, the decision maker at the center unblocks [*razblikirovat'*] the no-fire mechanism at the center, thereby releasing launch control to local automatic triggers associated with each command missile. The triggers, fed by numerous sensors, will launch its local command missile and, in turn, its associated cluster of ICBMs once the sensors are excited by the light, or seismic shock, or radiation, or atmospheric density associated with an incoming nuclear strike.

Q: Were the missiles operational by 1981?

A: Yes, definitely operational by the early 1980s.

It is important to understand that unblocking of "Dead Hand" assumes the scenario of a situation that is extremely threatening to the political and military leadership of the state. The basic expectation is that all decision makers are dead when the command missiles automatically fire.

Q: I would like to touch once more on the question of selective strikes.

A: We never accepted a limited strike option, not in the Central Committee, not as an element of the military policy of the CPSU [*Voennaia Politika KPSS*].

Q: But very well informed generals in the General Staff claim that they analyzed limited options of various kinds, and, under some conditions, would be prepared to implement them.

A: Of course the military played with this inside their own little box to which they would then pull down the cover, shutting themselves in the dark away from exposure to what was really going on. [He formed a box around his eyes with his hands and then pulled an imaginary cover out and down over his eyes]. Even though the military looked at limited options I know, personally, that they were not accepted. I attended many very high-level [the Defense Council supported by Central Committee Defense Industrial Department] meetings where major weapons and other development and procurement decisions on missile systems were debated and made. At many if not most such meetings, the doctrinal and strategic rationale for such force development decisions were reviewed and sometimes challenged. At such meetings selective use was occasionally raised as a possible option and was always rejected. Selective use was not approved, even for the tactical level.

Q: It seems to me that holding on to a position that "one little nuclear weapon from the enemy will end the world," was designed to deter [*sderzhat*] the U.S.

A: (Kataev and Viktor Popov, with recognition and enthusiasm): Of course. Exactly so!

Q: All right, what if for some reason deterrence failed and the Americans did what General Korobushin said we exercised in the mid-1980s, two or three nuclear missiles on remote military facilities in Siberia—or even seven to twenty tactical nuclear strikes from NATO in Europe against Soviet Forces in the course of an ongoing war? What would the Politburo do—in the 1980s or 1970s? End the world by retaliating with a massive strike? Ignore the strike? Respond with limited strikes and negotiate?

A: [After a fairly lengthy and very serious pause] I just don't know. That would be a very tough decision. [Viktor Popov also thought that the actual response would be very difficult and very hard to predict. Both seemed to be caught by surprise by the question—as if they actually had never considered it before.]