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CIS/RUSSIA ARMED FORCES

Imposter Makes Off With Equipment From Western Forces

93UM0244A Moscow ROSSIYSKAYA GAZETA
in Russian 8 Dec 92 p 8

[Article by Yelena Shaposhnikova under the rubric "Criminal Business": "The 'Terminator' From DOSAAF"]

[Text] The time is autumn, 1991. Germany. For our Western Group of Forces it is time to prepare for home. How will the homeland greet them? Where are they going to live? And one other headache: the enormous quantity of weapons built up over the decades at this forward edge of the socialist camp. By order of the command element this equipment was to be turned over to strictly regulated organizations within a short period of time. Organizations, however, which were in no big hurry to fill out the forms and haul it away....

It was just at this dramatic moment a sharp and charming DOSAAF agent showed up and reported to the ZGV [Western Group of Forces] headquarters, showering the worried generals with the long-awaited requisitions. Events then developed with lightning-like military speed. The command element immediately satisfied the volunteer society's request, and within a few days the energetic captain had dispatched 30 motor vehicles of various kinds to the Soviet Union.

In the spring the savior returned to Germany with another requisition: "Request that you allocate... for equipping DOSAAF organizations." This time the captain operated large-scale, loading up seven railcars with motor-vehicles, aviation equipment... and sending them out of Germany.

Hurry as he would, the captain could not manage everything within the deadline specified in his TDY orders. At this point the army finance workers began to worry. They were paying with currency for every day of the TDY abroad. They shot off a telegram to the Central Finance Directorate of Russia's armed forces asking for clarification of the schedule for the visitor's stay in Germany. The reply from Moscow stunned the paternal commanders: There was not and never had been such a captain in DOSAAF.

Regulations required the command element immediately to notify the district prosecutor's office of this ChP [extraordinary occurrence].

For still-unknown reasons, however, the ZGV took a different course of action. The background letter and the documents of the self-proclaimed captain were securely stored away in a fire-resistant safe. After that, having notified the superior command of what had happened, they placed the "captain" onto a special flight for Moscow. However... either the handsome "captain" was amazingly lucky or his "infraction" was considered insignificant, but no convoy enveloped him in its firm embrace at the military airfield near Moscow. And all traces of the DOSAAF agent disappeared in the big city....

The career of 40-year-old Vladimir Akulin (the name has been changed due to the investigation) has followed a

meandering pattern. A truly civic-minded person, he has wandered from one military establishment to another.

Having thoroughly looked over the procedures of the military, the observant "captain" came up with a simple technique for bilking it out of millions.

A couple of years ago Akulin got himself a job as an electrician in a paramilitary civil-defense unit deployed in a village near Moscow. He spent several months looking over the personnel and equipment. Some time later, when the unit was being disbanded, he reported to the commander once again and offered as an agent of DOSAAF to take over the military equipment. As you can imagine, the commander was happy to oblige.

It took more than just the commander's consent to transfer the brand-new, expensive equipment, however. Numerous documents of various kinds were needed. And, you know, Akulin had all of them completely in order. If you please: orders with credentials on forms of the DOSAAF Central Committee, embellished with the seals and stamps of that organization (even though the DOSAAF leadership swears that these are not accessible to outsiders). And that is not all. Akulin submitted to the unit orders for each type of equipment of interest from the appropriate branch directorates of the Moscow Military District. The "captain" then spent an entire month in the paramilitary unit, painstakingly filling out papers on each vehicle. The booty was considerable, though: two amphibious, tracked personnel carriers, a chemical lab and a chemical shop mounted on a ZIL chassis, five military radio units on wheels and mobile repair shops.

Akulin soon reached the conclusion that it would be far easier to "operate" in the army as a military man. So he made a visit to the Personnel Directorate of the Moscow Military District with a bogus request for four blank copies of the officer's identification form. Akulin immediately received all of five! Wasting no time, he filled out one in his own name, conferring upon himself the rank of captain.

The investigative organs consider it entirely likely that other units to be disbanded turned over to the "Captain from DOSAAF" with the same willingness that floating, flying and possibly firing equipment crammed with unique gear which is in such great demand today in "hot spots."

The investigation continues. It involves the command element and certain units of the Moscow Military District and the command element of the Western Group of Forces. And in the meantime the "terminator" (the name conferred upon Akulin by investigative agencies for the scope and speed of his actions) continues to do his thing. It is no longer "Captain Akulin" but "Colonel Petrov," let us say, who is making deals now with military and civilian organizations, though. Thanks to the negligence of military officials, the scoundrel still has four blank officer's identification cards in his possession!

But can all of the fantastic absurdities with which the case of the "terminator from DOSAAF" so abundantly be attributed to negligence alone?

P.S. After the article was ready for publication, the editors received a call from the military prosecutor's officer. The "terminator's" luck had changed. Akulin was arrested there in the Western Group of Forces.

CIS: STRATEGIC DETERRENT FORCES

Nuclear Weapons Scientists Interviewed

934P0026A Moscow VEK in Russian No 15, 4 Dec 92 p 10

[Interviews with nuclear scientists and designers Academician Yu. Khariton, Federal Nuclear Center Director V. Belugin, Academician A. Pavlovskiy, Academician A. Trutnev, and Chief Designer S. Voronin, by Vladimir Gubarev at Arzamas-16; date not given: "The Atom Bomb—Superstar"]

[Text] *Politicians and journalists, housewives and journalists, "greens" and diplomats are today contemplating, arguing, and chatting about the fate of nuclear arms, the disarmament process, and the future of the nuclear arms industry. Unfortunately the only voice that is not heard in this chorus is that of the creators of nuclear and thermonuclear arms. Unlike others, they fully understand the complexity and length of the process currently called disarmament.*

A group of journalists specializing in science, who formed the Nekos studio, visited the Russian Nuclear Center—Arzamas-16, where these arms are developed. They met with distinguished scientists and designers. We offer their point of view to VEK readers. The interviews were conducted by the head of the Nekos studio, Vladimir Gubarev.

So, here it is.

Academician Yu. Khariton

[Gubarev] *Yuliy Borisovich, what are modern nuclear arms?*

[Khariton] You see, a modern atom bomb is a rather delicate and elegant, I would say, construction. Everything about it: the method of initiating the detonation in order to produce a converging spheric wave, the method of placing the plutonium, the assembly—there is a lot of subtlety and ingenuity there. We cannot share these design details with anyone because it may lead to very widespread nuclear proliferation.

[Gubarev] *Yuliy Borisovich, it is quite natural that the general public has a wary, to put it mildly, attitude towards such a formidable weapon. To put it simply: People are afraid of the bomb! We are concerned: Can what happened to the Chernobyl reactor happen to the weapons as well? After all, just shortly before the catastrophe physicists maintained that nuclear power stations are absolutely safe. And then a major disaster... Are there any guarantees with respect to weapons?*

[Khariton] We have never said that our "products" are absolutely safe! On the contrary, we emphasize in every possible way that they are dangerous and that a great degree of care is required in working with and gaining access to nuclear arms. They have to be transported, for instance, by rail, where accidents are possible. Moreover, there are occasionally fires and derailments on the railroad. Therefore we constantly call for the greatest possible care, keeping transportation to a minimum, and so on. We made this margin of safety a special area of our efforts. Production facilities were spread out, so we had to do some reshuffling in order to reduce the transportation of assembled warheads to a minimum... In the past, in my opinion, this used to be done very frivolously, but since our

interference much has changed, and unnecessary transportation reduced. We are not talking about a nuclear explosion. If, for instance, a malefactor takes a shot at the spheric charge, in a number of designs this may cause a detonation of the explosives. The shock wave reaching the plutonium by itself may cause dispersion, possibly with an attendant atomic cloud—then the wind carries it and contamination occurs...

[Gubarev] *Have you been present at hydrogen bomb testing?*

[Khariton] Of course. I was 70 kilometers away. At the edge of the settlement was a building, and below, something like bleachers. There were many military people and scientists there; they were learning, or, more precisely, trying to understand what this bomb is... Igor Vasilyevich Kurchatov and I were in the upper row... The explosion took place in the air—the bomb was dropped from an aircraft... The shock wave came three minutes later; it blew the caps off all the military people. It took them a long time to find them afterwards... After the explosion we went to the site, that is, under the point of explosion, and saw how the earth had "buckled"... This is a horrible weapon; it was necessary for the preservation of peace on the planet. I am convinced that without nuclear deterrence the course of history would have been different—more aggressive, probably. I am convinced that nuclear arms are necessary for stabilization; they can help avoid the big war, because only a madman would attempt such in our times. As long as we have modern nuclear arms, they meet the toughest standards. Nevertheless, I constantly bring up the issue of security, the complex of measures that must ensure it. In my opinion this is the main problem today. The rest we have already found solutions to in the past...

V. Belugin, director of the Federal Nuclear Center

[Gubarev] *Your main task is the development of state-of-the-art nuclear arms that meet modern tasks. Correct?*

[Belugin] Yes, but not entirely, because there is no plan. Nor is there any certainty in our business. The president of Russia came here and said that we are needed, after all. He said it for all to hear. Before that a number of public figures, ecologists, and scientists were saying that we were not needed, that all we can do is harm the planet. Now the word is: We are needed! It turns out, however, that this is not enough, given our system, our structure. Nobody respects the law or the rules... Uncertainty is our chief bane. We are not saying that all of us have to make nuclear arms, and lots of them at that. We agree that reductions are needed, that they have to be brought to a certain minimum that ensures security. But nobody knows yet what "security" is and what "sufficiency" is. There ought to be some kind of security doctrine, in which the role of nuclear arms should be defined. It is the responsibility of the politicians together with specialists to do this work.

So, you define its place in the military doctrine, then create a program for carrying it out, and it has to be a long-term one. This is a rule for every kind of production. Even if you decide to grow bananas, you cannot do so without a program. People must know to what extent they are needed, what they will be doing this year and five years from now. What I am talking about is not that much

production but first and foremost science and development. With this comes confidence, effectiveness, and everything else. In short, everything positive. This is what is lacking today.

[Gubarev] Neither the politicians of the past nor the current ones can put this program together on their own. You probably should have your own state policy, which you should present to the government, the Supreme Soviet, and the president. Do you have such a policy? It is another matter whether others would agree with it or not, but at least it would provide a subject for discussions and decisions.

[Belugin] We have already presented our proposals to both Gorbachev and Yeltsin. We have our own understanding of the problem. We do not claim that we know the ultimate truth, but we do have an understanding of the role and place of nuclear arms in the modern world. We have described it many times, and sent papers "up the line" with varying degrees of classified contents—I think this is all we have been doing over the past few years. We have literally pursued Gorbachev, but he never bothered to reply to us. Just once he attached a resolution saying that this should be considered, but from then on—silence... Political turmoil has not done any good for us. There was an attempt to reduce the administrative system, but instead it became more bloated. There are new people coming all the time; the structures are unstable. No traditions... Sometimes they ask such naive questions that it leaves you at a loss, not knowing why a question is being asked. Therefore, it is hard to demand something serious from such people. Still, I am an optimist by nature, and therefore I hope that within the next few months things will fall into place, the problems of security and sufficiency will be resolved, and thus the place of nuclear arms in our life will be defined.

[Gubarev] Do you not think that a major mistake has been made over the past 10 years? Both we and the United States have accumulated so many nuclear arms that each country now has enough to annihilate the globe 10-15 times over.

[Belugin] We were warning about this five, seven years ago, but we were told that it was none of our business. Now as to whose fault it is... We could, of course, beat ourselves up and repent. But neither scientists nor weapons designers (and I am one of them) feel that they are to blame, because we had a completely different psychology. You cannot look at every past event from the position of today, without taking into account the situation in the world, the psychology of people, and the real state of affairs. At that time our task was to ensure national security. We were not privy to many issues. We knew our secrets and protected them, but we did not have any notion of the quantity of our "product," even less its intended targets—these were secrets we were not supposed to know... Long before perestroika, by the way... We knew what the Americans have. We knew that our range of weapons is considerably broader. We did propose to make cuts and redirect the resources into advanced development that promised great effect in the future. Frankly, we were coming up against a stone wall... Then we began to realize that there are too many incompetent people "at the top." First, a fact here and there pointed to that; then later we learned that the nuclear arms advisers to the national leadership are people who have no notion of it. That is when we really starting

sounding the alarm, but unfortunately we were not heard and still are not being heard—are they deaf or what?

Academician A. Pavlovskiy

[Gubarev] Are you trusted as a nuclear arms designer? Your ideas, your words? Or not always?

[Pavlovskiy] Fortunately my circle of friends and acquaintances is such that I am trusted. It is natural... In a normal society everything should be based on trust. In this city, among the people within my orbit, this has always been the case. It would have been impossible to accomplish what we did in a different atmosphere, and it would be impossible to work. This is an unshakeable moral principle. Perhaps it is not applicable in society as a whole today, but trust is the only solid guarantee.

[Gubarev] As is known, there are goods that are being diverted. Is this possible with respect to an atomic bomb?

[Pavlovskiy] In principle, nothing is impossible. I can allow for the possibility that such a task will be set: to steal a nuclear warhead, and some group of people will attempt to accomplish it. If they come up with something original, such an operation could be successful. In short, I admit such a possibility. But a nuclear warhead is a somewhat unusual item; one has to be a good specialist—of very broad expertise in the area of warhead construction, by the way—in order to first accomplish this and second, attempt to use it. But this is pure speculation, since apparently the existing system of accounting precludes such a possibility.

[Gubarev] I realize that the degree of control reliability is very high when, for instance, five warheads a year are produced. But what if there are hundreds or thousands?

[Pavlovskiy] The system of control does not depend on quantity. It has been formed over many years and there are several independent organizations that prevent accidental mishaps. In principle, it is possible to steal a bomb, but in practice it is not. At least, if you offered me this task, I would not be able to accomplish it.

I want to add that any bomb produces too much "noise" and this is such an effective method of control that there cannot be anything better. A man can be deceived, his vigilance relaxed, but there is not much we can do about physical laws—we do not yet have power over them.

[Gubarev] Are you an optimist?

[Pavlovskiy] I am concerned that we may deprive ourselves of our future. I am not talking about the impending impoverishment, the disintegration of industry, and the state of the economy. This much is obvious. But also there is a falling birth rate, and our youth is becoming engaged in business, which in our understanding and our reality is nothing other than reselling, speculation. We are gradually becoming a country without a future, and this is the worst. The people who are making mistakes today will be gone, but where will others come from? We used to have one advantage—the children... I recall a joke. Our citizens asks a Japanese man for his impression of the country, and he says: You have good children, but you do not know how to work with your hands... Unfortunately, we are now losing this advantage as well... We had an arts school in the city; at the time, a lot of resources were put into it. Now it is being liquidated—there is no money, they say.

[Gubarev] Do you feel that the inflow of young people into your business is diminishing?

[Pavlovskiy] Of course. I can even allow for a possibility that after a certain number of years there will not be anyone left who will know how to handle nuclear weapons. The weapons will still be there, but everyone will be afraid to touch them. Without young people our field will die. Even now we, people of advanced age, are forced to a certain extent to continue working, although by all logic we should have made room for a new generation. It is slow in coming, though... In short, problems that are sometimes barely perceptible in society come into sharper focus here—it so happens that we have to live in tomorrow and constantly think about it.

Academician Yu. Trutnev

[Gubarev] Do you have a special point of view on nuclear disarmament?

[Trutnev] Why "special"? I think of it as a citizen and as a specialist. We are getting used to hearing: "All they want to do is blow things up!" It is imputed that we fear losing our jobs, etc. We will never be out of work, even if we stop making weapons. Our profession requires such a broad range of skills—we deal with various fields in physics, technologies, design—that we will always find somewhere to apply our expertise; it is already happening now to a certain extent. Because of the cutbacks in the spectrum of work. It is important to understand that arms reduction is a very natural process. So this kind of talk about losing jobs and the "blow-up itch" often reflects not merely incompetency but a desire to earn political capital. It is fashionable now to berate nuclear arms and everyone involved in military subjects. We should not forget, however, that in our world—complex, gripped with crises—the country still needs defense. In my view, nuclear arms are the cheapest way to avert any threat, any danger. Nuclear arms are also a political weapon. A potential aggressor is forced to think twice before engaging in a conflict with a country that possesses nuclear weapons. For us it has a special importance, considering the geopolitical situation of our country. Americans have it good—they are surrounded by three oceans, while we are right in the middle of a continent. And who says it is a quiet one? Remember the borders, the territorial claims against one another, including those against Russia. I am not speaking from the point of view of imperial ambitions; I am simply describing reality.

[Gubarev] Were you just fulfilling tasks? Or did you actually define the country's nuclear strategy?

[Trutnev] Of course, we did not define it, but our work did influence the behavior of political figures. I want to tell you that I have no intention of apologizing; moreover, I have no regrets about coming here and participating in the development of nuclear arms. We worked for the strengthening of the defense capabilities of our country; we gave it our all. Together with the entire country, because nuclear arms are the product of the work of many thousands of people. Our conscience is clear, because we did not have Hiroshima or Nagasaki. Neither did we have any weapons-related nuclear accidents...

[Gubarev] A group of specialists was recently invited to the United States where they were shown ways and methods of dealing with such accidents—the Americans were, so to say, sharing their own sad experience.

[Trutnev] Fortunately we have never had such serious accidents... As to the current situation... I think nuclear arms will exist for a rather long time. They are called "weapons of mass destruction." But what about Dresden? How many people died there as a result of "blanket bombing raids"? About 40,000... This is without any nuclear weapons. And what about Iraq?.. Of course, nuclear weapons have their own peculiar qualities, a multifactor effect, but modern weapons also are, I would say...

[Gubarev] Not a gift to humanity.

[Trutnev] Exactly! So we have to think more broadly, not just about nuclear arms, although their quantities have to be reduced, of course. In my opinion the future of nuclear arms is first and foremost reduction in the number of armaments and their increased safety, especially in our country, as well as the creation of new, more reliable and safe types.

[Gubarev] Which means testing is needed.

[Trutnev] Nuclear arms cannot exist without it. I sometimes hear the opinion that it is possible to create nuclear weapons and not test them. Those who say this refer to Andrey Dmitriyevich Sakharov. I talked to him about it three days before he died; he did not change his point of view, although I tried to argue my point, and reminded him of several incidents from our joint work. I have the greatest respect for Andrey Dmitriyevich and I am one of his disciples, but in this case he is wrong. If we treat arms as technical means, we cannot do without testing... By the way, most interestingly, people who say this are those who stop working in the field or have nothing to do with weapons development... In reality, the issue of testing is very politicized. Yes, there had been above-ground tests. This is one thing. Underground testing is something completely different. Even during our memorable conversation Andrey Dmitriyevich admitted that underground nuclear explosions are safe. I am saying this for those who are used to quoting authoritative sources.

[Gubarev] Is the problem of the "brain drain" artificial?

[Trutnev] Much will depend on how the events develop. I personally think that it is unlikely that our people will leave, although I cannot preclude it. Actually, many of those who worked in Arzamas-16 have now found themselves "abroad"—I mean Ukraine, Kazakhstan... But this is not the most important issue.

[Gubarev] And what is?

[Trutnev] I am concerned about something else. Over the decades—almost half a century—a unique scientific-technical collective that joins the efforts of professionals of the most varied specializations has been created and is functioning here. Such is the specifics of nuclear arms, whose development brought together theoretical physicists, experimenters, technologists, designers, chemists, etc. This conglomerate is a unique phenomenon. I am afraid that under current circumstances this collective will

disintegrate. And this will be a loss not only for Russia but for world science as a whole. This concerns me more than anything else.

Chief Designer S. Voronin

[Gubarev] What is happening today with respect to nuclear arms?

[Voronin] We are at a new stage now. The arms that are left after deep cuts require a different approach. The fact that we have accumulated so many arms is madness! There are about 50,000 warheads on the planet—15,000-20,000 megatons. I repeat, this is madness. They are not needed for military purposes or even as a deterrent; I think even the most militarized circles understand this now, regardless of where they are—across the ocean or here. And it makes sense that negotiations on arms reductions are going on, except that they need to be conducted in such a way that at any given stage the nuclear balance will be maintained. Tilting it leads again to global destabilization, so it is very important to maintain this balance—then under the threat of retaliation nobody will think of using nuclear arms.

[Gubarev] But is this possible at all?

[Voronin] At the initial stage not much thought was given to the fact that nuclear arms are not designed to be used on a battlefield. Now it is clear that they are a political weapon, a means of deterrence. Sensible people will never use them, but they force any aggressor to refrain from adventurist decisions. Anyone who may conceive or is conceiving something bad understands very well the terrible retaliation strike that may befall him.

[Gubarev] You mentioned some figures—50,000 warheads and 20,000 megatons. If all of this explodes at once, what will happen to the planet?

[Voronin] Everything that lives will be annihilated many times over.

[Gubarev] You knew very well that there is no need for so many armaments. Why did you not protest?

[Voronin] When I was young I frequently had the opportunity to be in the company of Andrey Dmitriyevich Sakharov. I was a designer, worked at a drafting table; the theoreticians, headed by Sakharov and Zeldovich, frequently stopped by. And almost by default, while discussing design they touched upon more philosophical issues, such as whether we are doing something useful, what the consequences will be, and so on. Andrey Dmitriyevich—and he was an unusual man!—even made impromptu calculations as to what would happen if a bomb of this or that capacity was exploded, in what generation gene mutation may take place, and who would suffer from this. Therefore, as a result of these discussions all of us were concerned from the very beginning with the consequences of the work we were doing. When some time later I had to get involved in the problem of nuclear arms effectiveness and strategic balance, we paid attention to the American approach, which was more sensible—they used a systems approach and did not spend money thoughtlessly. They had longer-term programs, with more clearly defined goals, and they made cardinal changes to the weapons once every 10-15 years. Under our system of

totalitarian, central leadership changes were demanded constantly, and we created new prototypes practically every three to four and sometimes every two years. Thus we acquired an immense range of hardware. As well as excessive quantities. All of that involved expenditures, spending. We knew the real state of affairs, expressed our negative opinion, but bringing this kind of information to the highest level just was not the way things were done in those times. We have reports that analyzed in detail the state of affairs in the United States and in our country; by the way, we compared quite unfavorably with the Americans. It was clear that the work was not organized well, but the people who were receiving such materials from us and who had access to the higher echelons of power, in my opinion, were simply afraid to report this. After all, this could have produced an unpredictable reaction—first and foremost directed at themselves.

[Gubarev] Have you stopped this kind of work?

[Voronin] Why should we? No. We keep doing it even now.

[Gubarev] What are the complexities of nuclear arms destruction, their storage, dismantling? Or is it simple?

[Voronin] No, there are quite a few difficulties. Mainly it is that in the past we made a certain quantity of weapons—to modernize the arsenal—and dismantled the same quantity, that is, there was a routine volume of work. Now the process is proceeding differently. There are huge quantities of warheads to be utilized, and immediately several problems popped up. First, ensuring safety of transportation. Right now the volume of dangerous cargo being moved around has increased dramatically. And it is not just the quantity but also the attending circumstances: the condition of the railroads and rolling stock, increased crime, unpredictability of events, up to the point where a train may get shot at.

[Gubarev] Is all of this not taken into account in advance?

[Voronin] Do not forget that a routine event in an unusual situation is already dangerous by itself. Is the situation normal now? ...Second. By itself, the process of dismantling differs from that of assembling; the danger is somewhat higher. Because of the aging of materials; also, the construction gets "compacted", and so on. We take all precautions in the production environment; we know the technology, and we know what to do under particular circumstances... And, of course, there is a problem of storing what has been dismantled. We have envisaged all the technical steps to provide the technical aspects, but sometimes they cannot keep up with the political ones. Therefore, there should be no haste in our business... And lastly—storage of fissionable materials and ensuring their security. There is one inconsistency there, however. For some reason we are only talking about security on our side—how we will store fissionable materials. In my opinion, this is a common problem. If the Americans want to know how we store our plutonium and uranium, we should also monitor how they keep theirs. If we keep it sealed and locked, they should too. In reality, however, there is currently no security mechanism and, as far as I know, no negotiations are being conducted in this respect. There are demands on their part, but so far everything is going on unilaterally; we cannot agree with this state of

affairs; there should be order brought into this, on a parity basis. The security mechanism should be an international one, and it should be the same for all.

[Gubarev] *You have spent 38 years here; do you have regrets about the past years?*

[Voronin] You know—no!.. Where would I find more interesting, fascinating work? Probably nowhere. Our work is unusual, nonstandard. Also, where would I meet so many outstanding people?! And, most importantly: I had an opportunity to travel a lot around the country; I visited all kinds of collectives, and I can tell you frankly: I have never met a collective like the one we used to have and still have... Or perhaps it is my character trait: If I get involved in something, I see it through to the end. As to our collective, it truly is unique. We have a more or less permanent core of personnel, and we have great traditions—we ourselves have developed them and enhance them all the time. Therefore, life and work here bring satisfaction. We have absorbed the best there was in the country; hence, high reliability, quality, and attitude towards work. I believe that our system of design development is the best in the country. So it would be a sin to ask for anything else...

Tendencies in Development of Russia's Strategic Force

934P0040A Moscow ROSSIYSKIYE VESTI
in Russian 17 Dec 92 p 2

[Article by Petr Lapunov under the rubric "Opinion":
"Nuclear Forces—the Nucleus of Security"]

[Text] Russia, having become the successor to the USSR in the area of nuclear arms, has gotten down to work on the establishment of its own Strategic Nuclear Forces (SNF). Their main purpose is to guarantee the strategic stability and security of Russia and of the other CIS member states in accordance with the international treaties signed by the Russian Federation.

The final structure of the Russian SNF remains open; however, some rather clear trends have appeared—fewer delivery vehicles, fewer nuclear warheads, and a lower level of readiness.

In accordance with the agreement reached in July of this year between the presidents of the Russian Federation and the United States of America ("framework agreement"), by the year 2003, and possibly even earlier, by the end of the year 2000, the countries will reduce the total number of warheads of each of the parties to a level between 3,000 and 3,500 units, or to a level that will be justified by each of the parties. Russia and the United States are eliminating all intercontinental ballistic missiles with multiple independently targetable reentry vehicles (MIRV'd ICBM's), and will reduce the number of warheads on submarine-launched ballistic missiles (SLBM's) to a level not to exceed 1,700-1,750 warheads.

The agreement that was reached extends the 1991 treaty on the reduction and limitation of strategic arms (OSSV), and expresses the additional intentions of the parties. These intentions are supposed to be recorded in the form of a document of a treaty nature, which will have to go through the complex route of signing and ratification in Russia and

the United States. It is for this reason that we will make some preliminary estimates in order to eliminate miscalculations and errors that could damage the national security of either of the parties.

At the time of the signing of the OSSV treaty, the USSR and the United States possessed SNF groups (SOA) [strategic offensive arms] that were approximately equal in combat capability, and which reflected principally different approaches of the parties to their construction. At the present time, substantial changes are taking place in the SNF structure under the influence of principal changes in the mutual relations between the United States and Russia. However, as before, strategic deterrence is provided by a nuclear triad consisting of ICBM's, SLBM's, and long-range heavy bombers (HB). Each component of the triad possesses unique capabilities that are extremely important for national defense and strategic deterrence.

Intercontinental ballistic missiles, for example, possess high speed and accuracy of delivery to target, can be retargeted quickly, and have a guidance system that allows the highest degree of defense and readiness (in comparison with the other components of the triad). In the case of silo basing, and this relates to all missile complexes of the Armed Forces of Russia with the exception of the SS-25 (NATO classification), they represent the most reliable and cheapest operational component of the triad. As is apparent, ICBM's, by virtue of their unique qualities, possess the greatest capability for deterring a potential aggressor. It is true that, in the opinion of individual experts, it is believed that silo-based ICBM's, especially with multiple reentry vehicles, by virtue of their vulnerability to an aggressor's first strike, create the preconditions for their launch immediately on receipt of the first warning signals of an enemy missile attack. In view of this, ICBM's with multiple reentry vehicles respond in the least degree to the requirements for preserving strategic stability in a crisis situation.

Missile submarines are sufficiently survivable and possess high concealability and mobility; however, they have a significantly lower degree of readiness. These SLBM qualities practically exclude missile launches after receipt of the first signals warning of a missile attack, which, in general, contributes to the preservation of strategic stability in the event of a crisis. However, the deterrent capabilities of SLBM's relative to ICBM's are significantly lower. Heavy bombers are not a first-strike weapon by virtue of low concealment and substantial flight time, and they can even be "recalled" after takeoff and return to their bases before cruise missile launch in the event of a change in the situation. Consequently, heavy bombers can be viewed as the most stabilizing component of the triad. They provide the military-political leadership extensive possibilities when making decisions, from a demonstration of force to participation in combat actions for delivering both nuclear and conventional weapons on enemy targets. However, owing to their high vulnerability, they possess the least deterrent capabilities.

Thus, if we want to achieve effective deterrence of potential aggressors, rule out the blackmail of a politically and economically weakened Russia, and ensure guaranteed implementation of combat tasks with strategic nuclear forces, in reducing strategic nuclear forces (SNF) on a

treaty basis it is advisable to maintain not only the leading role of RVSN [strategic missile troops] in the triad but also silo-based MIRV'd ICBM's, which to a greater degree meet the requirements of ecological and nuclear security and minimal cost. If political measures for the maintenance of strategic stability are assigned a paramount position, by risking a certain measure of reliability of strategic deterrence, national defense, and defense of our allies, we can allow ourselves to proceed not only with radical reductions in SNF but also to reorient their structure principally on SLBM's and heavy bomber aviation.

It is structural changes like this that can take place in Russia's SNF at the 2000-2003 year point in the event of implementation of the "framework agreement" at a time when the SOA of the United States practically are not changing. In addition, implementation of the "framework agreement" could also lead to significant additional expenditures. After all, the reductions being established according to the agreement in question will be carried out by means of the destruction of missile launchers and "a reduction in the number of warheads on existing ballistic missiles, except for the SS-18 missile." This provision alone gives Russia unequal status with the United States. After all, the question is not about a decrease in the number of warheads on ballistic missiles, which it is proposed to implement on the American Trident-2 and Minuteman-3 missiles, but about the physical destruction of missiles in silo launch facilities. But this, as is known, means the labor of millions of people for more than 30 years and new multibillion expenditures associated with the deployment of single reentry vehicles, which it is recommended to have after the implementation of the "framework agreement."

Of course, reductions in strategic arms are imminent. It is for this reason, from a political standpoint, that the "framework agreement" should undoubtedly be viewed as the next major step to reduced nuclear confrontation. It opens the way for a qualitatively new state of strategic stability in general. However, from a military standpoint concern for the reliability of the defense of Russia and its allies, and also for strategic deterrence, which even in the 21st century apparently will remain problem number one, will unfortunately continue. What is the cause of this? I will dwell only on two main points.

First, the danger of the withdrawal of the United States from the ABM [Antiballistic Missile] Treaty of 1972 and the possibility of the deployment of a limited ABM system with space-based and ground-based elements. In such a case the military balance will be characterized by instability, which will render impossible further radical SNF reduction. Consequently, in preparing a document of a treaty nature in which an extremely expensive program is established—implementation of the "framework agreement"—Russia has the right to expect real guarantees on the part of the United States concerning compliance with the 1972 ABM Treaty and, moreover, guarantees of departure from a policy of monopolistic creation of a multi-echelon ABM system.

Second, in reaching decisions concerning structural reorganizations and radical reductions in Russia's SNF, a comparative analysis of capabilities in the sphere of long-range precision weapons in a nonnuclear mode, most of all

air- and sea-based, is of no small importance. In the process of radical reductions of SNF it will become extremely necessary to take into account the influence of such weapons on strategic stability and national security, inasmuch as these weapons approach nuclear weapons in their destructive features for resolving a number of tasks. Therefore it is advisable to link the limit levels of strategic nuclear weapons with the resolution of questions on problems of limiting long-range conventional weapons.

Is the United States prepared to recognize our concern and meet us halfway? The answer to this question can be found on the pages of the daily report to Congress by the chairman of the Joint Chiefs of Staff of the U.S. Armed Forces for 1992: "We continue to move toward the creation of a global defense system against limited strikes (read, nuclear), which could represent a limited defense of American forces in forward positions."

As is apparent, the question concerns a global system that is capable of defending not only the continental part of the United States but American troops at forward positions: in Europe, in the Near and Middle East, in South Korea, and, apparently, in strategically important areas of the world ocean.

Thus, implementation of the SDI program is assuming an irreversible character: Tens of billions of dollars are being spent, more than a thousand contracts being concluded, and in the next three to five years not less than \$3-4 billion will be appropriated annually. There is uncertainty only over the scales and dates of deployment.

I would not want to forestall events and reach hasty conclusions, including for the American side. Undoubtedly, SNF reductions are necessary. However, it is necessary to compare the scales of the impending reductions, most of all with the security of Russia and its economic capabilities, which, as is well-known, are physically limited.

CIS: GROUND TROOPS

Evaluation of Tactical Exercise

93UM0193A Moscow VOYENNY VESTNIK in Russian
No 7, Jul 92 (signed to press 1 Jul 92) pp 15-18

[Article by Colonel V. Ryazanov and Lieutenant-Colonel A. Prikazchikov]

[Text] Under present conditions heightened demands are placed on training troops and command and control entities. They must be capable of conducting aggressive combat operations continuously for a lengthy time in a difficult situation against a well trained, technically outfitted enemy. This is achieved above all by strictly implementing the principle of teaching what is necessary in war. Naturally, intensive combat training involves no small outlays of material and financial assets. For example, ammunition and motor vehicle resource consumption rates in the U.S. and FRG armies substantially exceed those adopted in the CIS Armed Forces (Table 1) and the cost of training servicemen is accordingly several times more, but the high level of troop proficiency and combat readiness compensates for everything.

Table 1

Country	Ammunition Limit, rounds			Motor Vehicle Resources, km	
	Tank Artillery Rounds	12.7-mm Cartridges	7.62-mm Cartridges	Tank	BMP
United States	90-150	600	5,500	700	750
FRG	50	50	4,200	800	800

With our overall shortage of resources, a need appeared to substantiate combat training plans from a military-economic aspect as expenditures for it are rather great, especially for tactical exercises. That approach, for example, will allow choosing training options according to an economic criterion based on least outlays (without lowering the quality of troop training). That demand, by the way, also was put into combat training guidance documents for 1992.

In particular, development of a detailed calculation of expenditures for conducting an exercise is envisaged as an annex to the exercise plan. This requires an appropriate methodology or set of methodologies. These have been created at the Military Finance and Economic Faculty of MGFA [not further expanded]. Let us examine them in more detail in an example of an expenditure estimate for a live fire tactical exercise. The subunits involved are a tank battalion reinforced by a motorized-rifle company in BMP's, an artillery battalion and a AAA platoon.

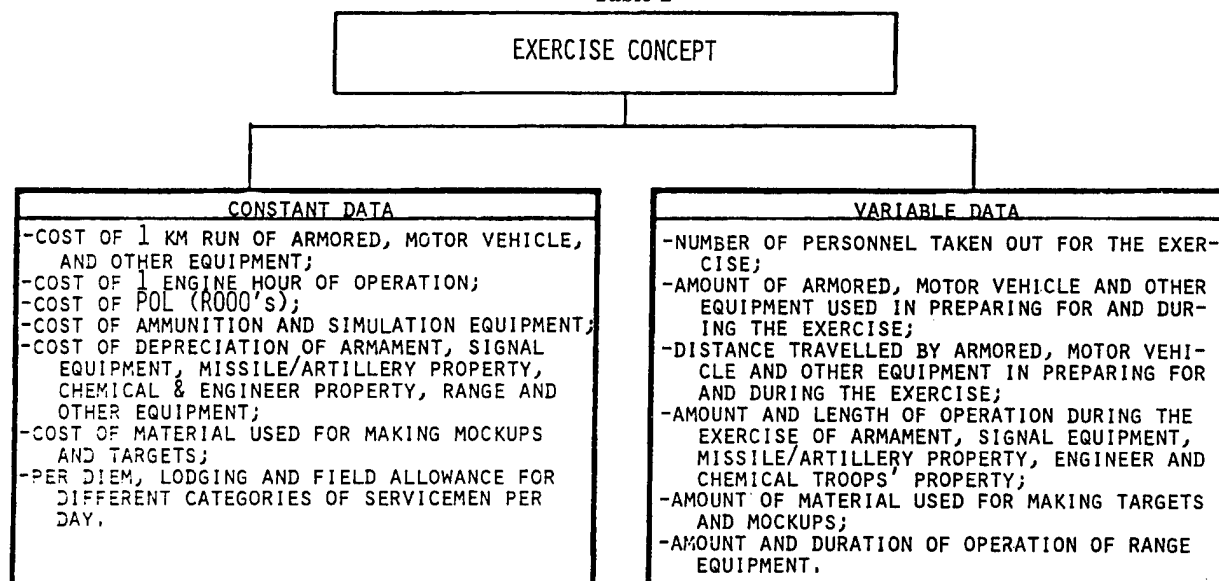
The overall amount of expenditures for the exercise is the sum of individual indicators, with specific initial data used to calculate the latter. Therefore initially it is necessary to prepare and systematize them in a certain manner (Table 2).

It is advisable to arrange the necessary minimum of constant data as reference and calculation tables and the necessary minimum of variable data as formalized forms and keep the set of documents at unit headquarters. The requisite standard and design indicators are taken from references, price catalogs, data cards and price lists available in unit services.

The movement routes of "players" and supporting subunits should be graphically depicted on the exercise plan or on a separate map of the same scale, with an indication of the route length (see diagram). Distance travelled by all kinds of equipment; expenditures of vehicle resources, ammunition, simulation equipment and other supplies in preparing for the exercise and by exercise phases; and duration of operation of range equipment are prepared in tabular form (tables 3-10).

After this begin calculating resource expenditure and cost. It makes sense to break them down by exercise phases, and all equipment and armament having to do with the exercise, including supporting equipment, is to be accounted for (Table 3). Figure the cost of fuel using those same data (Table 4).

Table 2

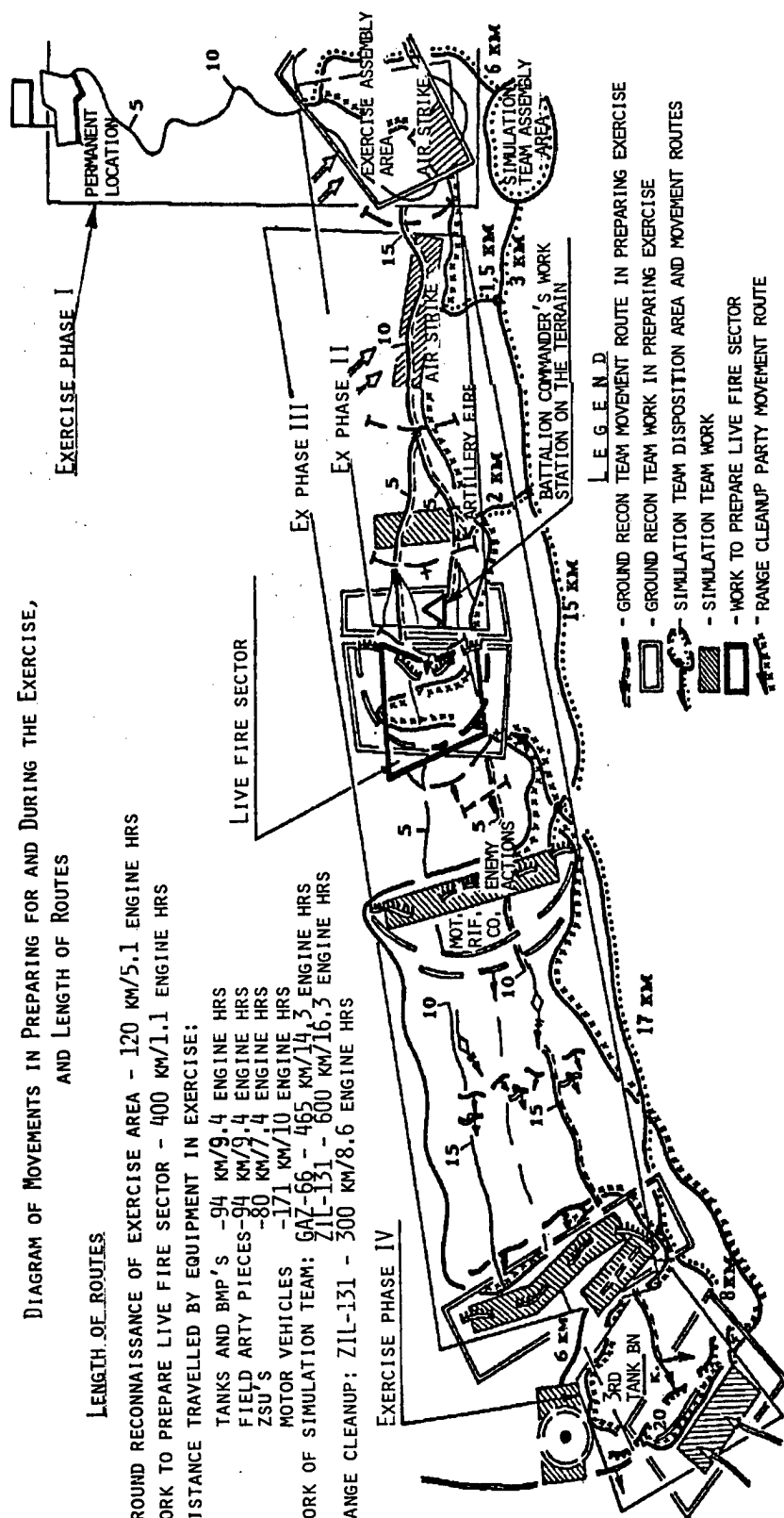


LENGTH OF ROUTES

1. GROUND RECONNAISSANCE OF EXERCISE AREA - 120 KM/5.1 ENGINE HRS
2. WORK TO PREPARE LIVE FIRE SECTOR - 400 KM/1.1 ENGINE HRS
3. DISTANCE TRAVELLED BY EQUIPMENT IN EXERCISE:

TANKS AND BMP'S	- 94 KM/9.4 ENGINE HRS
FIELD ARTY PIECES	- 94 KM/9.4 ENGINE HRS
ZSU'S	- 80 KM/7.4 ENGINE HRS
MOTOR VEHICLES	- 171 KM/10 ENGINE HRS
4. WORK OF SIMULATION TEAM: GAZ-66 - 465 KM/14.3 ENGINE HRS
ZIL-131 - 600 KM/16.3 ENGINE HRS
5. RANGE CLEANUP: ZIL-131 - 300 KM/8.6 ENGINE HRS

EXERCISE PHASE IV



DEPUTY CHIEF OF STAFF...TANK REGT
(RANK, LAST NAME)

Table 3 - Consumption of Resources in Preparing and Conducting an Exercise (Variant)

№№	SPHERES OF ACTIVITY	TYPE OF VEHICLES	RESOURCE CONSUMPTION IN PREPARING EXERCISE				RESOURCE CONSUMPTION BY EXERCISE PHASES							
							PHASE 1: "PLACING BATTALION IN FULL COMBAT READINESS"				PHASE 2: "ORGANIZING THE OFFENSIVE"			
			TOTAL VEHICLES		DISTANCE TRAVELLED, KM		OPERATION, ENGINE-HRS		TOTAL VEHICLES		DISTANCE TRAVELLED, KM		OPERATION, ENGINE-HRS	
			ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL
1	GROUND RECON	GAZ-463	1	120	120	2,3	2,3							
2	PREPARATION OF PRACTICE	GAZ-66	1	120	120	2,3	2,3							
	TARGET LAYOUT	GAZ-66	1	400	400	11,0	11,0							
3	DURING EXERCISE	ZIL-131	1	350	350	12,0	12,0							
		T-72						30	18	540	1,2	36		
		BMP						10	18	180	1,0	10		
		FLD ARTY						18	18	324	1,2	21,6		
		ZSU						3	18	54	1,2	3,6		
		MTU-20						1	18	18	1,2	1,2		
		BTS						1	18	18	1,2	1,2		
		R-145						2	18	36	1,0	2,0		
4	SIMULATION	URAL-375	1	200	200	5,5	5,5	10	18	180	0,5	5,0	1	36
		GAZ-66						1	50	50	1,5	1,5	2	80
		ZIL-131	2	180	360	5,5	11,0	2	50	100	1,5	3,0	1	80
5	RANGE CLEANUP	ZIL-131												

RESOURCE CONSUMPTION BY EXERCISE PHASES										RESOURCE CONSUMPTION IN CONCLUDING THE EXERCISE: RETURN TO PERMANENT LOCATIONS, RANGE CLEAN-UP AND SO ON								COST OF OUTLAYS FOR EQUIPMENT OPERATION, RUBLES									
PHASE 3: "ASSAULT AND EXPLOITATION"					PHASE 4: "SEIZING AND HOLDING FAVORABLE LINE"													TOTAL KM		COST OF DISTANCE TRAVELLED, RUBLES		OPERATION OF VEHICLES, ENGINE-HOURS		COST OF OPERATION OF VEHICLES, RUBLES		TOTAL, RUBLES	
TOTAL VEHICLES	DISTANCE TRAVELLED, KM		OPERATION, ENGINE-HRS		TOTAL VEHICLES	DISTANCE TRAVELLED, KM		OPERATION, ENGINE-HRS		TOTAL VEHICLES	DISTANCE TRAVELLED, KM		OPERATION, ENGINE-HRS														
	ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL		ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL		ONE VEHICLE	TOTAL	ONE VEHICLE	TOTAL		ONE VEHICLE	TOTAL	1 KM	TOTAL		1 CHINESE	TOTAL		1 CHINESE	TOTAL		
					1	28	28	0,7	0,7	1	48	48	1,2	1,2	232	0,01	2,3			5,1	0,01	0,1		2,4			
															120	0,01	1,2			2,3	0,02	0,1		1,3			
															400	0,01	4,0			11,0	0,02	0,2		4,2			
															350	0,02	7,0			12,0	0,02	0,3		7,3			
22	23	506	3,5	77,0	22	5	110	1,5	33	22	48	1056	3,2	70,4	2212	12,5	27650,0			216,4	8,3	1796,1		29446			
8	18	144	3,2	25,6						8	38	304	2,5	20,0	448	12,5	5600,0			45,6	8,3	378,5		5978			
10	23	230	3,5	35,0	10	5	50	1,5	1,5	10	48	480	3,2	32,0	778	6,3	4901,4			52,8	3,8	200,6		5102			
18	19	342	3,3	59,4	18	3	54	0,2	3,6	18	40	720	2,7	48,6	1440	5,5	7920,0			133,2	2,7	359,6		8479			
3	23	69	3,5	10,5	3	3	9	0,2	0,6	3	45	135	3,0	9,0	267	4,7	1254,9			23,7	3,0	71,1		1326			
1	15	15	3,0	3,0						1	33	33	2,2	2,2	66	5,5	363,0			6,4	2,7	17,3		380			
1	20	20	1,3	1,3						1	38	38	2,5	2,5	76	5,5	418,0			5,0	2,7	13,5		434			
2	19	38	3,2	6,4	2	5	10	3,0	6,0	2	48	96	3,2	6,4	216	8,3	1792,8			21,7	4,1	89,0		1882			
10	15	150	4,2	42,0						10	33	330	0,8	80,0	523	0,03	15,7			59,6	0,02	1,2		17			
1	250	250	6,3	6,3	1	80	80	2,0	2,0	1	40	40	1,0	1,0	700	0,01	7,0			18,6	0,02	0,4		7			
11	180	180	5,1	5,1	2	30	60	0,9	1,8	2	40	80	1,0	2,0	600	0,02	12,0			22,9	0,02	0,5		13			
	300	300	8,6	8,6									8,6		300	0,02	6,0			8,6	0,02	0,2		6			
										2	300	600		17,2	600	0,02	12,0			17,2	0,02	0,3		13			

NOTE: HERE AND FURTHER ON, THE STANDARDS FOR DISTANCE TRAVELLED, CONSUMPTION OF MOTOR VEHICLE RESOURCES, AMMUNITION & SIMULATION EQUIPMENT, THEIR COST INDICATORS AND SO ON ARE ARBITRARY AND ARE FOR ILLUSTRATING THE METHODOLOGY.

NOTE: ABOVE TWO PARTS OF TABLE SHOULD BE PLACED SIDE BY SIDE FOR CONVENIENCE IN READING.

Table 4 - Fuel Consumption and Cost (Variant)

Indicator	Kind of Fuel and Type of Equipment										
	Diesel Fuel						Motor Vehicle Gasoline				
	Tank	BMP	Artillery Piece	ZSU	MTU-20	BTS	R-145	URAL-375	GAZ-66	ZIL-131	UAZ-469
Distance travelled, km	2,660	778	1,440	267	66	76	216	523	1,220	1,850	232
Fuel consumption per km, l	1.0	0.6	0.9	0.4	1.0	1.0	0.8	0.56	0.4	0.6	0.2
Total fuel consumption:											
in liters	2,660	467	1,296	107	66	76	173	293	488	1,110	46
in tonnes	2.6	0.4	1.1	0.9	0.6	0.7	0.13	0.22	0.4	0.8	0.4
Fuel cost, rubles	156.4	27.2	74.8	61.2	40.8	47.6	25.4	57.2	78	156	78

Notes: 1. The following ratio was taken into account in converting liters to tonnes: 1 liter/0.85 kg for diesel fuel; 1 liter/0.75 kg for motor vehicle gasoline.

2. Cost of one liter of fuel is in the scale of 1988 prices.

After working out diagrams of the training target layout and of simulation, figure the cost of targets (Table 5), ammunition (Table 6), and simulation equipment (Table 7). It is important to estimate the cost of wear for missile and artillery armament service property. In particular,

take into account its wholesale price, service life (for weapons the number of rounds) and cost of medium-level maintenance (Table 8). Calculate the cost of communications equipment wear similarly based on the duration of its operation (Table 9)

Table 5 - Cost of Targets (Variant)

No.	Kind of Target	Number of Targets	Cost of One Target, rubles	Total Cost, rubles
1.	For tank gun:			
	N 12	56	102.1	5,717.6
	N 12b	16	10.8	172.8
	N 18	3	35.4	106.2
	N 19	18	40.3	725.4
2.	For BMP gun:			
	N 18	2	35.4	70.8
	N 19	4	40.3	161.2
	N 14b	4	58.8	235.2
3.	For PKT:			
	N 7	12	6.5	78
	N 8	78	9.3	725.4
	N 9	11	10.2	112.2
	N 10a	5	11.7	58.5
	N 11a	7	11.7	81.9
4.	For NSVT:			
	N 25	3	110.4	331.2
5.	For BMP PK, RPK, AKM:			
	N 7	53	6.5	344.5
	N 9	12	10.2	122.4
	N 10a	15	11.7	175.5
	N 11a	14	11.7	163.8

Table 5 - Cost of Targets (Variant) (Continued)

No.	Kind of Target	Number of Targets	Cost of One Target, rubles	Total Cost, rubles
6.	For ZSU:			
	N 25	2	110.4	220.8
7.	For helicopter:			
	N 12	16	102.1	1,633.6

Notes: Cost of training target layout under simulation plan is figured similarly as necessary.

Table 6 - Cost of Ammunition (Variant)

No.	Type Ammunition	Item Cost, rubles	Total Ammunition	Cost of Full Set, rubles
1.	125-mm (HE-fragmentation)	93.1	279	25,974.9
2.	30-mm (BMP)	7.1	150	1,065.0
3.	PG-7v	25.4	54	1,371.6
4.	7.62-mm Mod. 1943 rifle round*	70.0	1,280	89.6
5.	12.7-mm (B-32)*	420.0	60.0	25.2
6.	23-mm (HE-fragmentation-incendiary)	3.4	280	95.2
7.	5.45-mm*	54.0	1,280	69.1
8.	122-mm (HE-fragmentation)	95.0	48	4,560.0

Note: * indicates price per thousand.

Table 7 - Cost of Simulation Equipment (Variant)

No.	Type of Simulation Equipment	Item Cost, rubles	Total Simulation Equipment	Cost of Full Set, rubles
1.	IM-100	3.5	6	21.0
2.	IM-82	1.2	10	12.0
3.	NSP	1.2	20	24.0
4.	Battle noise simulator	0.18	40	7.2
5.	Artillery shellburst simulator	1.9	10	19.0
6.	IU-59	103.0	1	103.0
7.	26-mm signal cartridge	0.15	25	3.75
8.	30-mm signal cartridge	0.77	38	29.3

Table 8 - Cost of Armament Wear (Variant)

No.	Weapon	Wholesale Price, R000's	Service Life, rounds	Cost of Medium-Level Maintenance, R000's	Number of Rounds	Cost, rubles	
						One Round	Weapon Wear
1.	Tank gun	5.0	2,000	0.5	279	2.75	767.3
2.	Artillery piece	7.0	3,000	0.7	48	2.57	123.2
3.	Grenade launcher	1.0	15,000	0.1	54	0.07	4.0
4.	RPK, PK	0.5	1,000,000,000	0.04	1,280	-	1.0
5.	AKM	0.3	1,000,000,000	0.03	1,280	-	1.0

Table 9 - Cost of Communications Equipment Wear (Variant)

No.	Type of Communications Equipment	Cost of One Hour of Operation, rubles	Duration of Operation, hrs	Cost of Wear, rubles
1.	R-142	4.3	50	215.0
2.	R-145	5.7	63	359.0
3.	R-123	0.6	36	21.6
4.	R-105	0.17	18	3.1
5.	R-108	0.1	24	2.4

To take account of indirect costs, add expenditures for food, for payment of field allowance and for supplementary personnel training (unscheduled tank gunnery and gunnery drills on communications equipment, driving practices, and so on). In our example the costs for feeding 400 persons are added from the cost of rations ($R1.75 \times 400 = R700$) and supplementary meals ($R1.0 \times 400 = R400$) for three days and can be $(R700 + R400) \times 3 = R3,300$.

Put calculation results together in a table (Table 10), filling in the planned cost column. Fill in columns 5, 6 and 7 after the exercise according to actual outlays. It is possible to

assess the exercise's effectiveness subsequently based on their analysis (planned and actual costs) and on results achieved in the exercise. In our example the planned costs for motor vehicle resources and for supplementary personnel training were exceeded (with a saving on expenditures for ammunition). By comparing them with the final evaluation, it is possible to determine the effectiveness of efforts to conduct the exercise and the quality of battalion training, especially tactical-weapons training. In addition, the commander and staff are obligated to analyze reasons for damages to legal and physical persons (if that happened) and work out measures to preclude them in the future.

Table 10 - Overall Costs for Preparation and Conduct of Exercise (Variant)

No.	Kind of Expenditures	Exercise Costs				
		Exercise Cost, rubles			Ratio	
		Previous	Planned	Actual	In Rubles	In Percent
1.	Cost of armored and motor vehicle equipment resource consumption in preparation for and during exercise, rubles	46,859.0	52,869.2	54,344.0	+1,447.8	+ 3
2.	Cost of fuel, rubles	1,100.1	802.6	860.6	+ 58.0	+ 7
3.	Cost of ammunition, rubles	33,844.3	34,107.4	30,150.1	- 3,957.3	- 12
4.	Cost of simulation equipment	115.6	219.25	219.25	-	-
5.	Cost of armament life expenditure, rubles	796.1	897.0	750.0	- 147.0	- 16
6.	Cost of communications equipment life expenditure, rubles	684.3	601.2	691.1	+ 90.9	+ 15
7.	Cost of targets, rubles	10,800.0	11,237.0	11,237.0	-	-
8.	Cost of simulation and payment of field allowance, rubles	5,000.0	5,100.0	5,100.0	-	-
9.	Compensation for damage, rubles	6,100.1	-	8,200.3	+ 8,200.3	100
10.	Cost of supplementary battalion training, rubles	6,300.3	7,000.0	7,250.0	+ 250.0	+ 4
Total		111,602.5	112,842.7	118,802.1	+ 5,943.7	+ 5

Of course, considering the diversity of exercises conducted in the troops, it is impossible to reveal all aspects which require assessment in cost terms within the scope of one article. For example, illumination support costs arise at night, support costs arise in a river assault crossing, corresponding tariffs come into play in case of movement by rail or other form of transportation and so on. But we figured the important thing was to show the methodology for solving such problems in the interests of most effective expenditure of allocated combat training assets.

In conclusion we would like to note that today we are only in the first stage of a new approach to the problem of

thrifty resource consumption. The next stage, which is more important and more complicated, is to develop and master procedures permitting, first of all, economic substantiation of the advisability of a commander's decision in the planning stage and, secondly, at the end of the exercise (in summing up results), economic substantiation of the result actually achieved. Therefore we await readers' suggestions both on the methodology presented and on tasks of the second stage.

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Fortified Areas: Lessons and Conclusions

93UM0194A Moscow VOYENNY VESTNIK in Russian
No 7, Jul 92 (signed to press 1 Jul 92) pp 28-33

[Article by Colonel V. Bakharev under rubric "School of Combat Proficiency"]

[Text] An article by Candidate of Historical Sciences, Docent Colonel V. Sidorov was published under that title in one of last year's journal issues.¹ It talked about the history of the creation of fortified areas and their use in the Great Patriotic War. It is clear from the article that lessons were learned but, judging from the events which followed, the conclusions drawn were not quite correct. The material published below tells what condition fortified areas presently are in.

As Colonel Sidorov already noted, fortified areas did not justify the hopes placed on them, with slight exception, due to major errors and miscalculations made by the state political leadership. The Western Theater of Military Operations proved to be unprepared in the engineer sense by the beginning of the Great Patriotic War. Fortified areas on the old border had been disarmed and mothballed, and their construction at new defensive lines was not completed by June 1941. Moreover, some works of previous fortified areas extending for 1,200 km had been destroyed on I. Stalin's personal order in the spring of 1941.

Only in the Far East did they continue to be built, and even more actively with the beginning of the war. Fortification of the Far Eastern region served as a response to Japan's preparation of Manchurian territory as a springboard for attack. Fortified areas became a reliable cover for a certain time, but already in 1954 they were subjected first to reduction and later also disbandment.

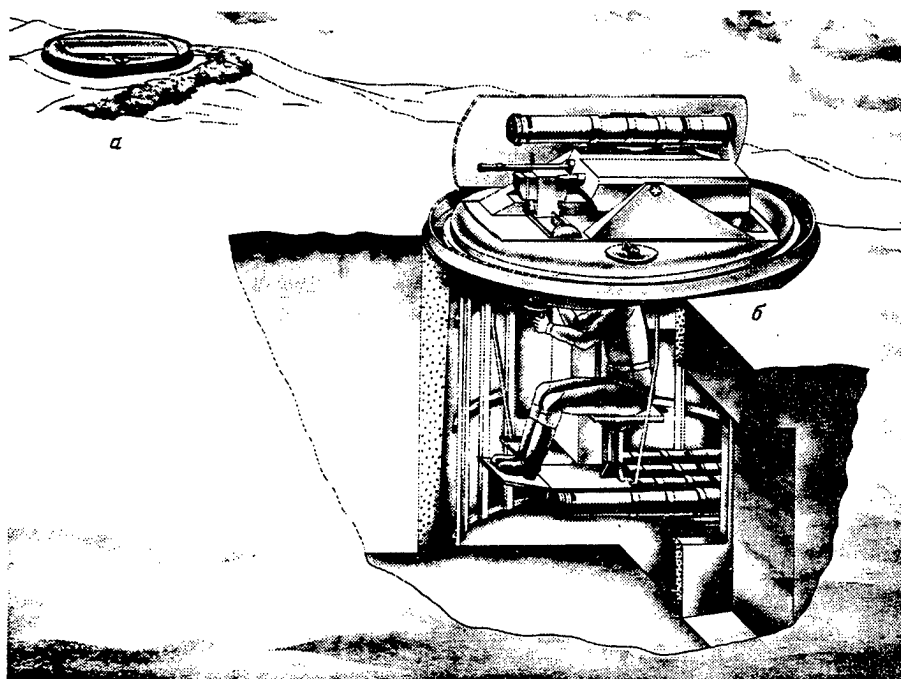
At that time rear defensive line komendaturas were set up for security and servicing of the mothballed works, but they too were abolished five years later by General Staff

decision. The armament and some internal equipment of the sites was dismantled and concentrated at district depots. Left unsecured, the works were completely cannibalized in time and fell into disrepair. Fortified areas as such had ceased to exist by the early 1960's.

Only in 1965, when relations with China became exacerbated, were views on use of border fortified areas again revised. Previous fortifications hastily began being restored and new ones created in the Far East, in the Transbaykal and in the Transcaucasus. The entire process took almost 15 years and required the involvement of an enormous amount of materiel and hundreds of thousands of people. In the final account, as a result of the entire country's incredible efforts fortified areas began to meet demands of the time being placed on them.

Just what have they been like until recently? I believe one of the weapon emplacements located, say, in the southern Primorye should be described for readers who do not have a sufficient idea about this. Imagine a tank or ship artillery turret set in concrete in a rock cliff with its height not over 40-60 cm above ground. With the one or two 85-mm to 122-mm guns and machineguns assigned here, it is considered the upper floor of the structure. Beneath it are two more floors (bunkers), where several units of fire of ammunition and a month's food reserve are stockpiled, an autonomous power generator and filter-ventilation unit are installed, and places for rest and an individual well of one kind or another are prepared. In other words, there is everything necessary for the garrison to fight for a lengthy time even if totally surrounded. Approaches to the structure are covered by nonexplosive artificial obstacles and in wartime are mined. Weapon emplacements are interconnected by passages and outfitted with wire and radio communications equipment. A perimeter defense made fortified areas practically impregnable.

It remains to add to what has been said that the personnel are constantly next to the combat installations. Barrack



housing and administrative buildings are several tens of meters away from them. The subunits would take their specified places and be ready to repel attack literally in a matter of minutes. Classes and drills were held daily, and as a result the people's actions were brought to an automatic state; every bush, rock, and knoll was "registered"...

They say history repeats itself. Perhaps that is how it is. In any case, fortified areas again are not experiencing their very best days. It is common knowledge that specially trained machinegun-artillery elements are earmarked for their defense, but unfortunately they presently are being kept at reduced strength, which of course has a negative effect on the training process, on combat readiness and, what is probably saddest, on the upkeep and condition of costly fortifications.

Judge for yourselves. What reliable border cover can we speak of if there are rather few up-to-strength subunits and, moreover, they are disposed at a considerable distance from the mothballed installations? Whoever has served in reduced-strength units certainly knows the true worth of the state of training of their privates and NCO's. Weapons, communications equipment, ammunition, food and much more has been taken out of the fortified areas and is kept at depots. There is no alert duty, there is no patrolling along the border, and barracks and elements of the physical training facility have been left to the mercy of fate.

With the cancellation of alert duty there was a sharp deterioration in coordination with Border Guard Troops, and the sense of the border as a whole inherent at one time in fortified area servicemen today is being lost. In the opinion of many officers, the machinegun-artillery elements have been deprived of the most important advantage—the opportunity to immediately commit a portion of personnel and equipment in the initial centers of resistance. Moreover, up to now there have been no specific recommendations on their combat employment. Unified views on the role, importance and prospects for further construction and upgrading of fortified areas also have not been developed.

Well, perhaps the need for them has disappeared now? For some politicians assert that no enemies remain for us and seemingly no one plans to attack CIS countries. This is of course good, but territorial claims against us on the part of certain neighbors still remain. How will they turn out in the future in relations, say, with Japan? The fact is, as many people there are living on Earth, that many fight among themselves. Who will give a guarantee today that Russia and other Commonwealth states will not be subjected to armed attack in the future, as has happened more than once before? And it must be confessed that each time we proved unprepared for this...

Well-known military specialists believe that fortified areas are capable of playing a substantial role in future armed conflicts in the tactical and sometimes even operational defense zone system in covering important state border sectors, individual areas, administrative centers and installations. They will acquire special significance in carrying out major defensive and antilanding operations to hold island and peninsular zones and coastal sectors, which are viewed abroad as springboards for initiating military operations. Finally, fortified areas will hold far from the last

place in the system of fortifications on the seacoast and in the organization of coast defense troops.

Decisive importance unquestionably rests with large strategic combined-arms formations in covering the border, but they will perform such a mission considerably more successfully and with fewer losses by relying on fortified areas which are in permanent combat readiness. Being an element of their first echelon, the fortified areas are capable of independently defending a zone of considerable extent and, by holding occupied positions for a lengthy time, gaining time for deploying and concentrating necessary personnel and equipment and for their launching of a counteroffensive.

I believe there is no sense in citing further arguments in favor of fortified areas. They are obvious to the military person even without that. The problem specifically is the reverse. I will repeat that in a condition similar to that of prewar 1941, fortified areas again may not justify expectations, and problems pile up with every passing day.

For example, weapon emplacements that just recently were considered effective are hopelessly obsolete today. As we know, chiefly T-34, T-44, T-54, IS-2 and IS-3 turrets are in the inventory. They are not supplied with night vision devices, which naturally reduces their use at night and under other conditions of limited visibility. The insufficient number of guns and mortars in machinegun-artillery units and subunits precludes illumination of targets, and the different calibers of weapons will hamper the now already mandatory delivery of ammunition in a period of threat (as well as delivery of other materiel now stored at depots).

After alert duty was canceled and subunits were concentrated on military posts, the drainage system was disrupted in some permanent fortifications. Lower floors of casemates were under water. The remaining property, structures, lining of emplacements and connecting passages, barbed-wire obstacles, and fixed wire communications lines are being used by the local populace in their own interests.

In my view the situation with personnel matters also is rather bad. Positions of tank weapon emplacement platoon commanders basically are filled from among officers with an artillery military occupational specialty. As a rule, they are not familiar with tank armament and serve in such subunits unwillingly. Many are happy for any opportunity to return to their own combat arm. Matters have come down to where all tank weapon emplacement platoon commander positions have become vacant in some Transbaykal Military District machinegun-artillery units!

Our reference information. Russia's land borders are 3,000 km longer than the border of the former USSR. Their potential for conflict is considerably higher than the previous potential.

Just what should be done to correct the situation? First of all I believe it is necessary to change the attitude toward fortified areas and understand their importance and significance in questions of strengthening the state's defense capability, and to do so at the highest levels. It is necessary to develop recommendations on a qualitatively new basis for use of machinegun-artillery elements and to consider

the specific nature of fortified areas, which are created for advance preparation of operational axes and are called upon to promote increased survivability and effectiveness of operations of formations, units and subunits.

In my view it is advisable to subdivide fortified areas into permanent and field fortified areas depending on their specific purpose and conditions of use. Permanent areas are formed in peacetime. They must serve as the basis for arranging an impregnable defense on axes of the enemy's most probable attacks. Naturally he will know about their existence and either will reject an offensive here (which, by the way, is one of the missions of fortified areas), or will begin to penetrate the defense and expend personnel, equipment and time. This, too, corresponds to the purpose of fortified areas.

Field fortified areas can become a new element of the troop alignment. When repelling aggression they will allow the defense to be reinforced and in counterthrusts they will allow flanks to be covered and captured lines consolidated. Their field fortification most likely will be based on transportable, quickly built, factory-made structures permitting this work to be done in 1.5-2 days.

The idea of using field fortified areas is not new. Mobile fortified areas gave a rather good account of themselves back in the Great Patriotic War years, but did not see proper development for various reasons and then were rejected altogether. But now new materials and surfaces, synthetic armor and modern engineer equipment have appeared in the troop inventory. There has been a significant increase in unit and subunit maneuverability. All this enabled taking a new look at a solution to problems connected with armament of field fortified areas.

In particular, it is best not to use combined-arms units and subunits as a field filling, but specially trained units capable of creating requisite densities of artillery, antitank, flamethrower, machinegun and surface-to-air missile fire in a short time without additional reinforcement. They must be able to independently erect fortifications in minimum necessary time periods and dismantle them just as quickly after performing the mission.

A combination of permanent and field fortified areas also is possible, but I believe preference still must be given to the latter as a more flexible form of advance preparation of lines.

Of course the troops intended for defense of fortified areas must be outfitted with modern equipment, especially as such an opportunity now has presented itself. It would be worthwhile to think about forming mobile tank weapon emplacement battalions and subunits capable of remote mining of terrain as part of their makeup from among formations and units being reduced. It is also time to examine prospects for outfitting fortified areas with remote-controlled (robotized) close-combat systems, arm subunits with guns of the same calibers using turrets from armored equipment to be destroyed, outfit depots with loading and unloading equipment, mechanize ammunition delivery, and construct magazines for the units of fire laid out on the ground.

It is also advisable to be concerned with creating new types of permanent fortification structures having better habitability and higher autonomy, and also accelerate development of authorized means for maskirovka [lit. "camouflage", however, includes "concealment" and "deception"—FBIS] and disinformation of the enemy. The fact is, as Persian Gulf events confirmed, in many cases American technical means of intelligence proved incapable of distinguishing inflated mockups of tanks, guns and other military equipment from real ones. As a result, strikes were delivered against dummy areas and positions.

In my view, in our time it is not too sensible to use subunits and units of the Border Guard Troops as a field filling of fortified areas in case of aggression. Considering their high proficiency, it is better to use them as a reserve for reconnaissance personnel and equipment, as an anti-landing reserve, as guides for enveloping and raiding detachments and groups, and so on.

With respect to personnel training, I believe suggestions for purposeful training of military school cadets with command and technical specialties for machinegun-artillery subunits are not devoid of grounds. To begin with, a specialization in training for service in fortified areas can be introduced in military educational institutions of border military districts for a certain portion of graduates.

And finally the last thing. As a rule, Cossacks have lived near borders and consequently also near fortified areas since time immemorial. A patriotic movement in their midst has intensified noticeably in recent years. Alliances and countrymen's associations are persistently striving for creation of Cossack elements as part of the Armed Forces and Border Guard Troops. I think that a certain benefit can be drawn from this in the situation at hand. As a matter of fact, why not transfer the DFS [permanent fortification structures], SPS [not further expanded, possibly rifle/machine gun emplacement], NTOT [not further expanded; possibly fixed tank gun emplacements] and other works to a Cossack unit? Naturally they must be responsible for their upkeep and readiness for use. If Cossack draftees and reservists are assigned to and serve in nearby fortified areas, this largely will alleviate the acuteness of the problem. Of course in that case the Cossacks should be given certain privileges, also including from the CIS Joint Armed Forces High Command. I am convinced that in the final account such an approach justifies itself.

There also are other proposals regarding the future of fortified areas which seem to me to merit attention, but one cannot tell about everything in a small journal article. One thing is clear: fortified areas have not exhausted themselves. And even taking into account international relations which are favorably shaping up and the lowering of the military threat, one must remember the past war's lessons. It still is not too late to draw conclusions.

Footnotes

1. VOYENNNYY VESTNIK, No 4, 1991.

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Interaction in Combat: Comments on Theory

93UM0194B Moscow VOYENNY VESTNIK in Russian
No 7, Jul 92 (signed to press 1 Jul 92) pp 37-41

[Article by Colonel S. Tsyrendorzhiev, candidate of military sciences]

[Text] *The process of transforming mixed forces and equipment of warfare into combat supersystems capable of inflicting a decisive defeat on the enemy to the full depth of his alignment in the shortest possible time and with high effectiveness is gathering force in armies of developed world countries. The first experience in their large-scale use was convincingly demonstrated by coalition forces in the war against Iraq in 1991.*

Results of the conflict clearly showed that with other conditions being equal, the one who unites his forces and equipment into a combat system with the highest organization wins. The fact is, this will allow him to disrupt interaction among elements of the corresponding enemy system by preemptive strikes against reconnaissance and communications equipment and against command and control entities, which entails a reduction in combat effectiveness of enemy troops.

Questions of interaction are periodically reflected in pages of the military press, but many touch only partially on the very essence of its theory, which perhaps has a right to independent existence.

I will begin by saying that an equivocal interpretation of this very concept is allowed even in the relatively accessible "Voyenny entsiklopedicheskiy slovar" [Military Encyclopedic Dictionary]. Thus, while one can read at the beginning of the corresponding article: "Interaction (military), force operations . . . coordinated by goals and missions to achieve the goal of the battle (operation)," three paragraphs later the authors' viewpoint changes somewhat. Now already for some reason "operational interaction consists of *coordination* (my emphasis—S. Ts.) of operations . . . of forces in the interests of achieving the goal of an operation..."

Thus it is not hard to notice the substitution for the concept of "interaction," perceived as the action itself, by another—its organization.

It must be said that in practice, also including during combat training, people usually work exclusively on organizational matters, i.e., how to coordinate operations of mixed forces and equipment, for example, in playing out a battle in a tactical or command and staff exercise. And immeasurably less time is devoted to studying the question of what these very operations should be like. Moreover, are there differences at all between what we understand as the battle or operation (for these, too, are coordinated operations joined by a common concept) and interaction, whose essence, as we see, is not revealed too successfully in the "Voyenny entsiklopedicheskiy slovar".

If the process itself and work to organize it are denoted by one and the same term only as a result of incomplete work in theoretical research, this is easily corrected. It is enormously worse when the essence of two different processes is understood identically. And one can see that such a thing is encountered at times if only from the example of the explanation of the concepts of "battle" and "interaction"

cited in the "Voyennaya entsiklopediya" [Military Encyclopedia] and the aforementioned "Voyenny entsiklopedicheskiy slovar." Let us compare.

Battle, strikes, fire and maneuver of formations, units (ships), and subunits coordinated by goal, place and time for purposes . . . of executing . . . tactical missions...

Interaction, operations by forces coordinated by goals, missions, place, time and methods of executing missions for achieving the goals of a battle (operation).

The conclusion clearly can be drawn from the definitions that both essentially are coordinated operations (strike, fire and maneuver all are forms of operations) of forces to achieve the goal of battle. Then, following the logic, the conclusion also appears legitimate that battle is the interaction of formations, units and subunits. But such a wording also hardly will clarify the essence of both concepts.

But still, if one believes that the first is the principal, basic one and does not try to revise its substance, then it remains to find an answer to the question: "Just what, then, after all, is interaction?"

The size of a journal article does not allow going deeper into details of philosophical explorations. Therefore I will dwell only on the fact that the role of interaction in the life of society already has been rather well studied and substantiated. In this respect K. Marx's aphoristic thought expressed in a letter to P. Annenkov in Paris that society is the product of people's interaction is interesting.

Multidimensional processes of interaction of different parts of society, taking place at varying speed and influencing its condition in different ways, unquestionably have much in common with the interaction of forces conducting combat operations. Therefore, paraphrasing the thought quoted above, it can be said that "the battle (operation) is the product of interaction of forces taking part in it."

But even this seemingly logical and substantiated definition does not fully fit within the already created "architecture" of the conceptual body of military art and of air defense tactics in particular. For in it interaction acts as something more general; it is primary and determines the character and varieties of battle. In other words, whatever the interaction of forces and equipment will be like, so will be the battle which they fight.

Studies have shown that in the general case (within the scope of armed conflict) interaction can exist as organized (confrontation) or unintentional opposition, neutrality, mutual assistance, support and, finally, temporary substitution of some forces for others. And regardless of whether or not allies or enemies are interacting, it can assume the form of a particular effect: combat (fire, attack), support (electronic, logistic), or information.

Depending on scale, it is encompassed in the form of an engagement, an operation, a battle, or an attack and for the most part reflects the effect of one belligerent on the other, although these concepts probably do insufficiently underscore reciprocity and interdependence in changes of state of each of them (the enemies) over time.

Nevertheless, it is evidently inadvisable to apply the term "interaction" to describe the confrontation of hostile groupings. In order not to create terminological difficulties

for specialists, it will be more logical to leave for interaction the sphere of mutual relations of forces and equipment within one of the sides. Even then, however, it is necessary to clarify its place in line with other very important concepts of military art, and above all with one such as "command and control."

What kind of approach is seen to solving the problem? It turns out that to begin with it is sufficient to analyze all kinds of mutual effects occurring in the subject area such as among air defense forces and equipment of a combined-arms formation or unit. This unquestionably will help clarify the boundaries of existence of the concepts "command and control" and "interaction."

It is fully obvious that while command and control is by nature an information type of link, interaction belongs only partly to links of that type, simultaneously existing also in other kinds of effect—fire, attack, electronic—and each of them can be direct or indirect.

But there are substantial differences between interaction and command and control even in the information sphere. Thus, it is easy to trace relations between the object and entity of command and control within the hierarchic structure of troops according to command and control information, while interaction information is intended for supplementing the situation information which interacting command and control entities have.

Meanwhile, command and control as a process which affects all aspects of the vital activity of units and subunits also does not leave interaction without exerting organizing influence on it. Command and control regulates it in all kinds of manifestations and determines the priority of its particular form in relations among jointly operating forces and equipment in each period of battle. That process is known to each of us as "organization of interaction."

Taking into account the comments expressed, one can formulate the essence of the concept **"interaction of air defense forces and equipment"** as the controlled process of an exchange of different kinds of effects among mixed forces and equipment in preparing for combat operations and while covering troops and installations against air attacks.

Being a controlled process, interaction must not exist in antagonistic forms (for example, unintentional delivery of fires) as a result of purposeful activity of commanders and staffs, but as mutual assistance, support and replacement, i.e., coordinated actions of mixed air defense forces and equipment (support).

In practice it is organized and realized by different methods. The method of interaction is understood to mean the procedure of joint actions by forces and equipment to assist each other in performing combat missions.

In studying any phenomenon we usually strive to find in it some kind of stable traits or links inherent only to it which subsequently could be used to obtain practical results.

With respect to the interaction of air defense forces and equipment as an objectively existing process, it is fully admissible to assert the following. A stable dependence exists between air defense effectiveness and quality of interaction of forces and equipment jointly participating in repelling attacks by offensive air weapons. But for the

practical person, if the mechanism of manifestation is not uncovered, this seemingly obvious relationship cannot provide real results.

It is well known that a general pattern is realized through specific ones. In our case effectiveness (quality) of interaction of forces and equipment depends first of all on the degree to which their command and control systems conform to each other and, secondly, on the degree to which selected methods of interaction conform to troop capabilities and the nature of enemy actions. The dependence of effectiveness of interaction of forces and equipment on the degree of unity and quality of command and control of their joint actions in performing a combat mission also is an important dependence.

In day to day activity it has become possible to take account of these and other patterns only by observing a number of principles which have managed to be formulated based on theoretical studies and an analysis of empirical data and requirements of guidance documents. Here are the most essential ones:

- compensation of weak sides of some interacting forces and equipment with strong sides of others, with the most effective one playing the leading role;
- mutual safety of forces operating together;
- conformity of methods of interaction to capabilities of forces and equipment (their command and control systems), nature of enemy actions, and the assigned mission;
- unity and reliability of command and control of all forces and equipment;
- detailed study of questions of interaction;
- its stability and continuity.

Realization of theoretical views in general and of the proposed system of views on interaction in particular is possible only through people's practical activity. Therefore, having determined our position regarding the essence of the concept of interest, it is also advisable to set forth specific measures comprising the very process of "organizing interaction." The following sequence of actions is proposed in its structure.

1. In defining the concept of battle, substantiate methods of interaction of air defense units and subunits according to variants of actions by troops and the air enemy.

For each variant:

- determine the makeup of forces and equipment in accordance with the sequence of their employment in air defense battle;
- clarify the procedure of joint actions of mixed forces and equipment depending on their combat (fire) capabilities, compatibility of electronic equipment operation, and command and control system capabilities;
- outline the procedure for distributing efforts and the measures for giving assistance to each other in performing combat missions;
- create a structure of the system of command and control over interacting forces and equipment which ensures security of friendly aircraft in air defense weapon zones of fire;
- update missions for interacting units and subunits.

2. Develop the method and procedure for working out organizational-tactical and special measures, and with consideration of them specify combat missions for air defense forces and equipment.

As a rule special documents on interaction are not worked out at the tactical level. Necessary information is reflected in the air defense plan, in the commander's decision, and in other documents of the combat operations plan.

3. Communicate (if necessary) instructions on interaction to units and subunits.

4. Prepare and carry out practical measures to create a system of command and control of interaction. Rehearse its various methods with units, subunits and their staffs and with command and control facility teams.

5. Achieve unity of understanding by all command and control echelons, especially for the period of repulse of the first strike by the air enemy and performance of first tactical missions by covered troops (on defense this is the battle for the first position; in the offensive it is performance of the immediate mission).

It is advisable to work on organizing interaction and in particular developing its methods strictly by functional principle, i.e., in reconnaissance, command and control, air defense cover, and combat operations support systems.

Any attempts to delve more deeply into the essence of the concept entail a study of the air defense system structure from new standpoints. Thus in becoming familiar with information interaction, you draw a conclusion about existing (and significant) reserves for increasing the effectiveness of intelligence and command and control only by optimizing the information exchange procedure, and this unavoidably involves a certain rationalization of the structure.

In general, studies show that upgrading only information interaction depending on variants of air enemy actions is capable of providing a 30-40 percent increase in air defense effectiveness.

An even better result can be expected with proper organization of tactical interaction, which is only indirect, i.e., with realization of this kind of interaction some units and subunits assist in better performance of combat missions by others. This is achieved by the fact that at a given point in time and in a specific area (or sector of air space), they create conditions for maximum realization of a partner's combat capabilities.

For example, it can be a question of changing the flight parameters of offensive air weapons (altitude, kind of maneuver, routes of approach to a strike target) in the most advantageous manner for other air defense forces and equipment by the fire of certain SAM systems or by electronic jamming. In particular, just through rational distancing of positions of REB-S [not further expanded; a kind of EW] subunits and air defense subunits one can increase by at least one and one-half times the proportion of destroyed enemy air weapons which use gear supporting low-altitude flight.

Methods of support interaction acquire special pertinence in raising the effectiveness of air defense. For example, that same coordination with covered troops or with special subunits in maskirovka matters will help create conditions

for achieving surprise in opening fire and increasing survivability of air defense subunits and units. Calculations persuade us that lowering the dynamics of increase in losses of air defense weapons if only by 15-20 percent during the first several days of combat operations significantly increases the likelihood of fully seizing the initiative from the air enemy.

But real experience on the subject of the conversation touched on in the article can be drawn from local wars. It shows that from the standpoint of air defense specialists, essentially all conflicts of recent years demonstrated only examples of use of SAM (artillery) systems on the part of Arab countries and total disregard of questions of interaction in battle.

Let us examine more specifically a fragment of the U.S. air operation against Libya on 15 April 1986, and precisely the raid against the most important targets in the vicinity of Tripoli by F-111F strike aircraft which took off from UK territory. Its result is as follows: crews of 5 of 18 F-111F's earmarked for this purpose aborted the combat mission and according to foreign press information one other did not return to base (it can be assumed to have been shot down). Thus, the proportion of downed aircraft was around five percent. Unquestionably, the Libyans had the right to expect a better result with the air defense forces and equipment which they had. So what was the matter? Let us analyze and figure it.

In addition to the fact that the grouping of SAM troops essentially was uncontrolled in repelling the strike, questions of interaction were not rehearsed back when it was established. Specifically for this reason the air defense subunits (among which there was no mutual cover) did not receive information during the raid directly from low-altitude MPDR-45 radars. Moreover, the latter were poorly protected, as by the way was other reconnaissance equipment. But the fact is, if planned in advance and promptly implemented, these measures could increase air defense effectiveness by 4-6 percent.

The use of EW forces and equipment coordinated with SAM troops could provide another 4-5 percent, and with the addition of fighter aviation to them American losses would have risen to 3-4 aircraft. At least half of the crews would not have performed the combat mission, and this already is a disruption of the operation.

Before speaking of the other side's actions, let us stipulate two points. First, effectiveness of the U.S. Air Force command's conduct of the air operation is assessed by the probability of performing the combat mission. Second, we will take the following as the initial state (which, by the way, does not run counter to the truth): by the beginning of the operation the targets to be destroyed had been reliably reconnoitered and were within reach of the strike aircraft.

According to our assessments (taking into account the rather strong grouping of SAM troops in the vicinity of Tripoli), the effectiveness of the air operation should not have exceeded 50 percent, although had the Americans chosen other options for operations (high altitude for the raid, other directions and so on), the likelihood of their executing the mission would have remained at the level of 30-40 percent.

One has to believe that similar studies also were done at one time by U.S. Air Force specialists and the results unquestionably could not satisfy them. Hence the joint

actions of F-111F's with A-6E, A-7E and F/A-18 deck-based fighters and EF-111A and EA-6B EW aircraft.

Further calculations permit drawing the conclusion that interaction with air defense suppression elements increased the strike's effectiveness by 2-4 percent, and interaction with decoy elements by approximately again as much. A considerably greater effect—9-11 percent—was obtained as a result of electronic and fire suppression of the reconnaissance system coordinated with destruction of targets.

As a result, the probability of executing the combat mission should have been 65-70 percent. In reality it was 67. Very close, don't you think?

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Conventional Symbols in Maintenance Documents

93UM0274A Moscow *TEKHNIKA I VOORUZHENIYE*
in Russian No 12, Dec 91 pp 20-21

[Article by Colonel N. Novikov, candidate of technical sciences; Lieutenant Colonel A. Kartushev; and Major I. Galkin]

[Text] Quality and efficiency in servicing, maintenance and repair of vehicles depend to a considerable extent on the completeness with which maintenance documents are made out. For example, maintenance procedures flowsheets contain the list of work to be performed with a specific kind of servicing and maintenance, its labor-intensiveness, makeup of specialists involved, nomenclature of equipment and tools, and technical specifications. But experience shows that such documents do not always have an information content that is graphic enough. In

addition, a large volume of text is rather difficult to memorize and assimilate from the standpoint of psychological perception.

In this case maintenance documents compiled using the pictogram-fragment method of displaying information are optimum. Its essence consists of using regulated conventional symbols and signs for describing actions which the person responsible for the work carries out in a prescribed sequence.

Figure 1 gives 33 pictograms which permit replacing a verbal formulation for describing all kinds of vehicle servicing and maintenance work: fastening, adjusting, cleaning up and washing, diagnostic monitoring, flushing and cleaning, lubricating and filling, and operations to replace defective parts or assemblies.

Pictogram shapes and sizes are chosen so they are easy to read and memorize. Experience has shown this is achieved if symbols and signs depict the tool with which the work is done, the silhouette of the element or object acted on, or a conventional notation of the action of the person doing the work. Symbols are shaded in different colors for graphic effect and better perception. For example, signs denoting parts, assemblies and machine units which come in contact with water and condensate in the process of vehicle operation are blue, with fuel—brown, with oil and lubricants—yellow, and with special fluids—violet.

To describe the vehicle servicing and maintenance procedure, a set of pictograms represents a silhouette or outline depiction of tools, parts and assemblies on flowsheets (Fig. 2a). If necessary, explanatory text and tables are placed on them. Flowsheets can be reduced or enlarged in size depending on their purpose.

Key:

1. Check level (fill to normal)
2. Drain
3. Drain sediment
4. Change (drain and fill)
5. Clean off dirt and wash
6. Drain condensate
7. Check cotter (cotter)
8. Uncotter
9. Check (remedy) play
10. Replace with new part
11. Tighten nut
12. Tighten nut
13. Pressure lubricate, apply lubricant
14. Pressure lubricate, apply lubricant
15. Check (fix) leak
16. Check (inspect) presence and stowage
17. Fuel
18. Start engine
19. Remedy failures and damages
20. Flush
21. Adjust
22. Clean
23. Pedal
24. Lever
25. Part
26. Assembly unit

27. Attention
28. Check serviceability
 - a. Lights
 - b. Testing and measuring instruments
 - c. Windshield wipers
 - d. Horn
29. Reference scales
 - a. Straight
 - b. Quadrant
 - c. Circular
30. Annunciator panel
 - a. On
 - b. Off
 - c. Dim
 - d. Blinking
31. Line
 - a. Of action
 - b. Of observation
 - c. Waiting
32. Press and hold
 - a. Away from you
 - b. In direction of arrow
 - c. Fully in direction of arrow
33. Press and release
 - a. Away from you
 - b. In direction of arrow
 - c. Fully in direction of arrow

A diagram with the drawing of a vehicle in the center and boxes or symbols around the perimeter denoting the sequence of performing servicing and maintenance work is the basis of the overall configuration of flowsheets. Notations are inscribed clockwise around the vehicle indicating the positions of operations to be performed. The position number corresponds to the number of the box in which the actions of the person doing the work are described. A line is drawn from the number indicating the location of the assembly or machine unit to be serviced on the vehicle. For

detailing individual servicing and maintenance operations, an enlarged view of the object to be serviced (position 9, Fig. 2a) is located on the central drawing of the flowsheet next to the box. Positions corresponding to places for servicing are numbered and arrows are drawn from them indicating the location of the assembly (machine unit) on the vehicle. If necessary, specific points for fastening, adjusting or lubricating are denoted by small arrows on marginal diagrams. Servicing points and arrows are highlighted in contrasting colors (usually red).

Fig. 1. Variants of conventional signs and symbols:

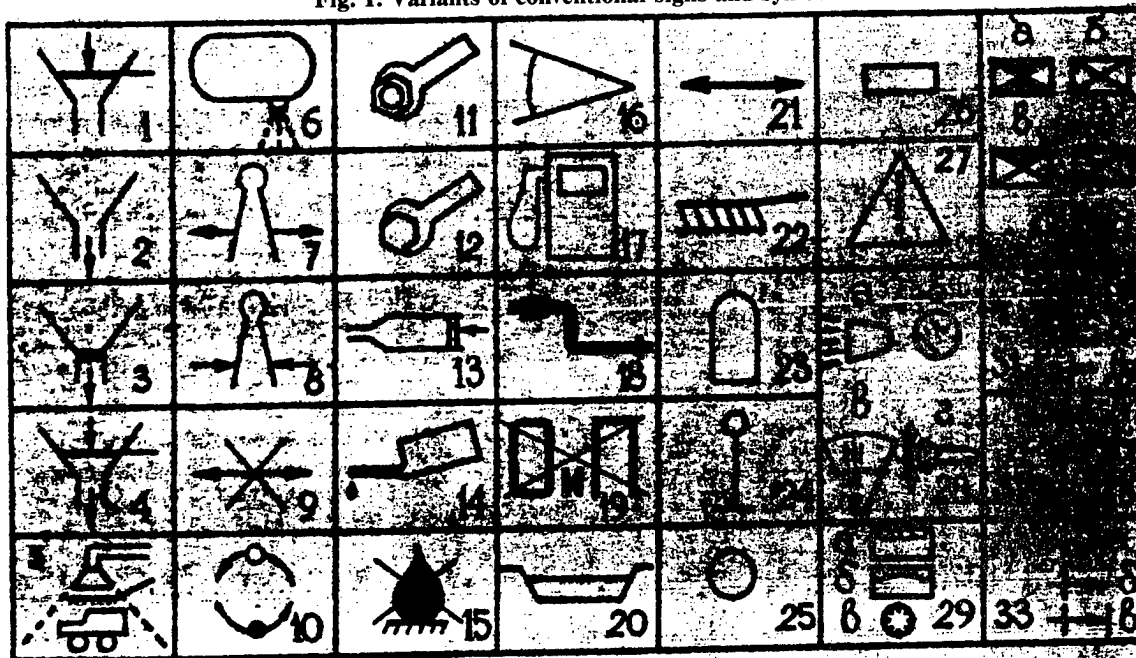


Рис. 1

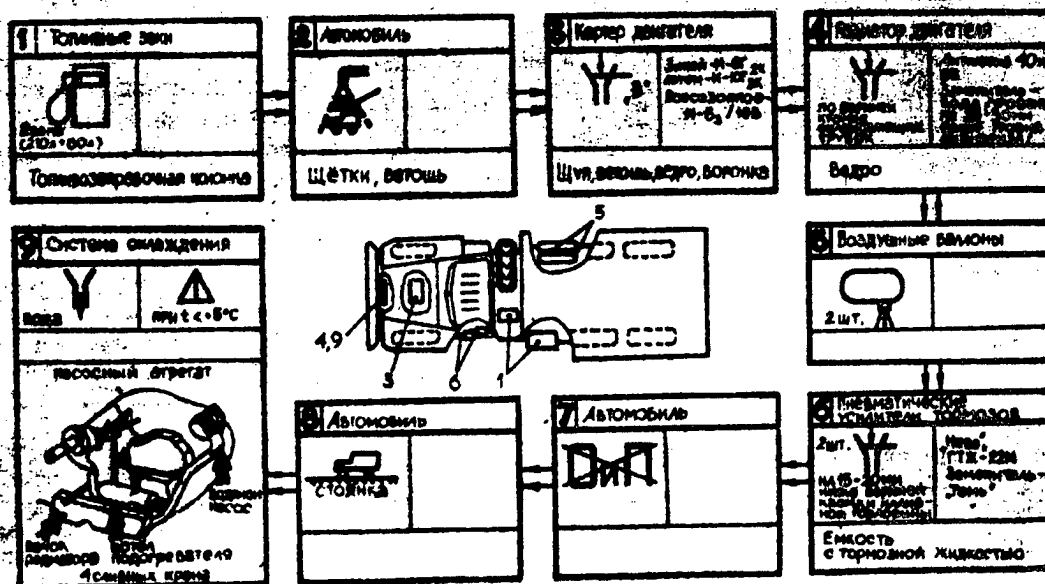
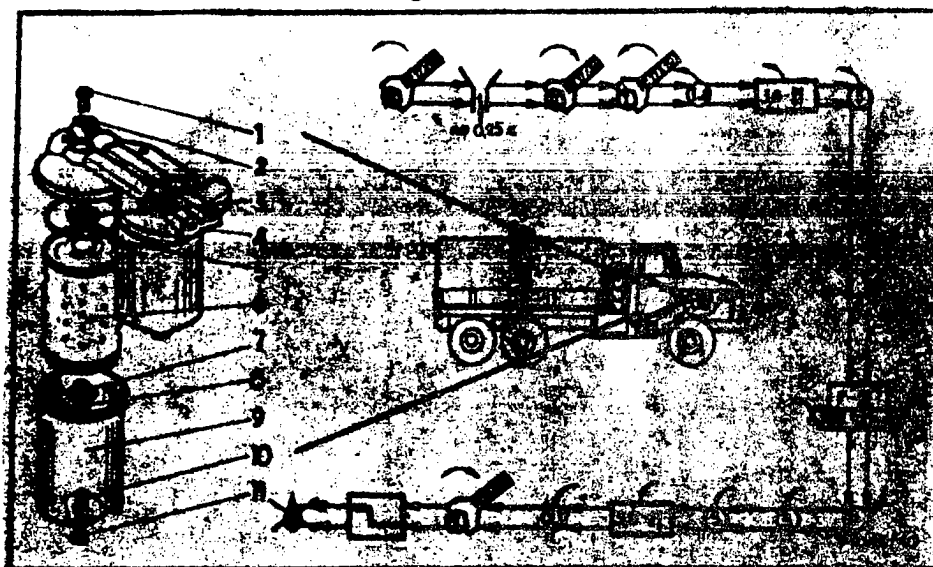


Рис. 2а

Fig 2. Flowsheets:



Key:

- a. Daily routine servicing and maintenance of Ural-4320 vehicle
- b. Replacement of KamAZ-740 engine fine fuel filter element

- 1. Bolt
- 2. Washer
- 3. Upper sealing ring
- 4. Casing
- 5. Gasket
- 6. Filter element
- 7. Lower sealing ring
- 8. Spring
- 9. Cap
- 10. Rod
- 11. Plug

Boxes are broken into five parts. The first part indicates the serial number of the operation in the technological work sequence. The second part gives the name of the object to be acted on, the third part a pictographic sign, the fourth part the materials to be used and technical specifications for performing the operations, and the fifth part the equipment, accessories and tools to be used. Boxes can be enlarged or reduced in size proportionate to a change in format of the entire flowsheet. The boxes can be supplemented by drawings, diagrams or tables which detail, clarify or explain the content of the operation.

For the most complicated work a reference is made in technical specifications to an individual flowsheet. In compiling it, symbols rather than boxes are located around the drawing of the vehicle along the perimeter of the flowsheet. Each sign denotes an individual part of the assembly unit being serviced and is numbered so as to coincide with the number of its position. For example, for changing filter elements of the fine fuel filter (Fig. 2b), a vehicle is depicted in the center of the flowsheet on which the filter's location is shown graphically. The left part of

the flowsheet shows a filter with all its elements and notations. An arrow indicates the location of the filter in the vehicle.

The order of performing the work is depicted by symbols around the perimeter of the flowsheet.

It is apparent from the flowsheet shown that to replace the filter element of the fine fuel filter, unscrew the drain plug, drain 0.25 liters of fuel and tighten the plug. Use the very same wrench to unscrew the upper bolt of the filter and remove it together with the washer. Disconnect the cap with filter element and with fastening and sealing parts from the filter casing. Remove the cap sealing gasket and upper sealing ring and take out the filter element.

Wash the lower sealing ring, springs, cap, rod and drain plug in diesel fuel. Install a new filter element in the cap and slip the upper sealing ring and cap gasket on the rod. Place the assembled unit in the filter mounting seat. Put the washer on the bolt and tighten the bolt into the filter casing using a prong-type wrench. Start the engine and check to see whether or not fuel is leaking.

Experience has shown that information depicted in flow-sheets using key signals and signs are easily perceived and memorized, which facilitates personnel training. In addition, this method permits changing maintenance documents (for example, vehicle servicing and maintenance flowsheets) efficiently with a change in servicing and maintenance programs.

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CIS: NAVAL FORCES

Latvia's Bolderaja Naval Port Remains Under Russian Naval Control

93UN0576F Riga DIYENA in Russian 17 Nov 92 pp 1,7

[Article by Yanis Silis, Riga, 16 November: "Bolderaja Navy Port—Another Country's Business Center"]

[Text] Various cargoes, including peat and metals, are regularly exported from Riga through Bolderaja Navy Port on the territory of which a whole series of commercial firms have settled. Riga Port Captain Konstantin Gaylis confirmed that Latvia does not receive any income whatsoever from the use of its port.

"Military department bureaucrats think that Bolderaja is a Russian port and they act accordingly," added the Riga Port captain. At the present time, six flat cars of pig iron castings are near the pier, ready to be loaded on a ship.

Bolderaja Navy Port practically has no ships with the exception of those several minesweepers and missile boats and two submarines that belong to the Russian Army's Baltic Fleet Training Center. This DIYENA reporter became convinced of that with his own eyes on 13 November.

Although individual representatives of the Latvian government complain that entry to the military port is prohibited, three journalists followed the railroad tracks and walked into "the realm of military secrets" through the half-opened gates. It was obvious that many people do the same thing in order to avoid having to pass through the check point located nearby. The remains of previous luxury were everywhere: piles of scrap metal and rubbish. When we had passed by three ships, we saw a pier that was full of the remains of submarine batteries which, as we know, contain things that are far from beneficial to the ecology—zinc and acid. These substances are frequently ending up in the water.

DIYENA cannot list all of the commercial structures that are laboring under the small roof of military unit No 10695. According to information which has been submitted to the Latvian Government by the army itself, such firms as Mik and Kompar, that "cut up ships and send them off for scrap" lease several piers here. It is the sixth pier leased by Mik that is full of the remains of batteries. Alongside them—are pig iron castings, just like at the first pier that is also leased by the above-mentioned firm. A huge mountain of peat and a transporter were visible

alongside the incomplete concrete wall. Latviyas kudra Enterprise also leases part of the territory of the military port.

Opposite the pier we could hear the engine of a submarine on which a crew from Iran is being trained. These submarines have already been sold to several countries through Riga. Another "fish", but an older class—a Foxtrot—was soaking in the water to the left of the submarine. These are the only active ships that are using the training center. The other ships that ended up in our field of vision were scrap awaiting their fate.

A little farther down the pier was the previously mentioned pig iron. Alongside it was a hole: the pier's concrete could not withstand the load. At the present time, no ship which could transport this iron has been declared to the port captain's service (and customs along with him).

The example of Baltic Fleet Transport Ship Fort Shevchenko proves that a ship can enter this port on the sly. That ship was declared at the end of October, however, it appeared in the middle of the month "under the cover of darkness". A protest was delivered to the Baltic Fleet command authorities for noncompliance with the schedule. In response, there was a reference to meteorological conditions that, in K. Gaylis's opinion, are quite real. However, the response stated that the Port Captain's Service had been informed about the ship's arrival in Riga Port. In turn, Gaylis's subordinates did not find a recorded entry on the arrival of that ship in the dispatcher's journal. The already loaded Fort Shevchenko declared its departure on 24 October which it made the next day. A report was compiled on the captain for the unregistered entry into Riga Port.

Latvian naval forces, border guards, and customs are incapable of either controlling or detaining the appearance of unregistered ships at the mouth of the Daugava for a simple reason—due to a shortage of ships and fuel.

Representatives of the Latvian authorities express fears that ferrous metals are being exported in this manner without any problem: the higher ups list peat and everything's in order. However, there is no specific evidence.

Riga Customs has the right to control something only after submission of a customs declaration. Normally, depending on the cargo, the declaration is inspected at the dock before the ship is moored. As Riga Port Customs Trade Section Chief Harry Paeglis explained to DIYENA, customs can order the unloading of a ship only in the event of absolutely specific suspicions. As far as H. Paeglis knows, not a single cargo has been unloaded here so far. Cargoes of peat are inspected using a metal probe. However, customs does not have five-meter probes in order to dependably inspect the entire hold to the bottom. Customs in general does not have the right to open military cargoes that are life-threatening (mines, etc.).

While expressing his attitude toward the activities of the commercial structures at the Russian Army garrisons, one highly-placed Ministry of Defense representative was laconic: "Why is the Russian Army in Latvia, to trade?"

'Komsomolets' Designer Says Radiation Leaking From Torpedoes

93WN0189A Moscow MOSCOW NEWS in English
No 49, 6-13 Dec 92 p 9

[Article by Yuri Teplyakov]

[Text] At the nuclear-powered submarine *Komsomolets*, now lying at a depth of 1,700 m in the Norwegian Sea, water is corroding nuclear torpedoes.

"I have told you all. Now it's up to you to decide whether this should be brought to the knowledge of the world."

For exactly a year these words of the academician have been like a splinter in my side. All this time I have been tormenting myself: do I have a right to disturb the memory of the dead? Do I have a right, even through the lips of a different person, to accuse those who, for five hours, deep under water, leaving compartment after compartment suffocating and burning alive, were thinking solely about their ship, the titanium god, which had no right to die. Those who even on the surface, having burst out of the inferno, choking with ice-cold water, still refused to believe that they were seeing their submarine and the whole of the wide world for the last time...

If on April 7, 1989, the Main Naval Headquarters of the Soviet Union received a radiogram saying that the Moscow Kremlin had been blown up, this report would hardly have upset the usual rhythm of local service life. But when through the blizzard and gale which on that spring day were raging over the Norwegian Sea, Moscow heard the voice of the dying nuclear-powered submarine *Komsomolets*, they simply kept repeating—this is impossible. Incidentally, whoever knew the submarine could not reason in any other way.

The *Komsomolets* was a phenomenon of the submarine fleet of the whole world, a national achievement of the Soviet Union. Any world power could only dream of having such a submarine beyond the threshold of the 20th century. The best American submarines dive to a depth of 400m. The *Komsomolets'* working depth (let me emphasize the word "working") was 1,000 m. In this hydrocosmos she was absolutely out of reach from existing weapons.

Three of our nuclear submarines now lie on the ocean floor. One was wrecked in March 1970, another in October 1986, the third, the *Komsomolets*, I saw lying on the bottom with my own eyes. At the Rubin design bureau I was shown a film which they made during the first expedition to a depth of 1,700 m. The submarine looks as usual. It can only be seen that the bolts are torn off on the deck—the submarine was heading to the bottom almost vertically and its impact against the ground was monstrous. Specialists maintain that blasts went off in the inside at the moment of submersion. The same is corroborated by the sailors who survived. Already on the raft they heard two or three powerful sounds from down below. Most likely the submarine was already on the ground by that time. Maybe this is the reason why the shutters of torpedo tubes—they are four meters from the tubes themselves—are open and the nose cap has been torn off. As to the rest, everything seems to be in place. The same is also the view of Igor Spassky, General Designer of the Rubin bureau, the father of the *Komsomolets* and, until recently, one of the most strictly classified people of the

Soviet military-industrial complex. A few years ago, as he himself put it, I would not have been let to come within gunshot of him. For his leverage in the military industry he is hardly second to the rocket designers Korolyov and Chelomei or the nuclear physicists Alexandrov and Sakharov. Whereas the latter were thinking of how to make the nuclear warhead more terrible, Spassky has been tackling and is still tackling a no less responsible mission how to deliver these warheads to the territory of a potential enemy. His submarine *Akula* (Shark) carries 200 nuclear warheads and is alone capable (this is also his own estimate) of destroying the whole of the United States and affecting its neighbours in the process. The former system cherished people like Spassky. The press not only did not mention them by name, but did not make even a hint at their existence. I remember how at a missile firing range near Arkhangelsk the father of the SS-20, Alexander Nadiradze, just smiled in reply to my request for an interview: if you merely claim having seen me you will at best be fired. But you want to write. I am simply nonexistent.

And right he was: when I wrote in my report that the author of the missile was born in the Caucasus, giving neither his name nor surname, the censor deleted even this. It is unbelievable that all this used to be, especially now that Igor Spassky is sitting next to me and making whatever by the old (and even present-day) yardsticks amounts to the most confidential statement.

"We had no doubts that radioactivity would appear on the wrecked submarine *Komsomolets*. We believed that this would take place in five years when corrosion had eaten away the metal. It turned out that the process commenced earlier. We made sure of this, having carried out an immense complex of sample tests. Of water, ground and sediments alike. A special expedition was organized to the site of the *Komsomolets* wreckage.

"In the first submersion to a depth of 1,700 m we set up plates and six days later we took them off. We're dealing with the finest doses of radiation that usual instruments simply do not respond to. The process is most intricate. The sediment alone was dried up in the course of six weeks. Then it was processed at the Arzamas-16 nuclear centre. The very first results of the analyses showed an increase over the background level.

"But previously it was claimed: the reactor had been dependably stopped, all the nuclear warheads had been isolated and no radiation was expected for centuries to come."

"I repeat that I personally put off the emergence of radiation only for a few years. I could not help its emergence. But on the other hand, I contend: it presents no danger for adjacent countries."

"And what is the source of radiation?"

"Water gnawed through the heads of torpedoes with nuclear charges. The lids of front tubes are open and outside water did its job. It is this breakthrough that we expected."

"And the reactor? As far as I know, it is made of steel. The sub's body, on the other hand, is made of titanium, and the electrochemical process between them in salt water causes the destruction of metal. The process does not favour the reactor. Titanium devours steel in salt water. Am I right?"

"Undoubtedly. But we expect no swift leakage. In the reactor compartment water must pass across several

thresholds before it starts destroying the circuit. The process is sufficiently static here. Outside current does, of course, produce some diffusive-suction phenomena also wherever there are holes in the durable hull. But erosion is negligible so far. Though it does exist. In general we presupposed a worse variant: the constructions being destroyed and everything in the inside being torn off at the moment of the submarine's submersion. The primary circuit could also have been damaged. Regrettably, we cannot take a look at the inside. What is reassuring is the fact that the hull is undamaged in the area of the reactor. If the circuit had been destroyed in the inside, the instruments would instantaneously have spotted radiation. But the instruments behaved quietly."

"It's good that the reactor is still resisting, but how long will it be necessary to wait for the torpedoes with nuclear warheads to be utterly destroyed?"

"What has commenced cannot be halted. But we have about five years in the reserve. Not more."

"and what will follow then?"

"The present worries me more than the future. The mere thought that radiation, even if in negligible quantities, even if they present no real danger to ecology, is ruining the sea makes people shudder all the same. Today nine nuclear reactors and 50 nuclear warheads are lying on the bottom of oceans. I don't know which of them are the most dangerous. Incidentally, your own pain is stronger. But if this were our trouble alone. The Norwegians are nervous. Norway exports 80 percent of its fish catch. And imagine the reaction of people who suddenly learn that a nuclear submarine is lying not far from Norway and is emitting smoke, even if insignificant, of radiation... And that the *Komsomolets* will smoke with radiation is a foregone conclusion. True, as our experts estimate, the enhanced radiation background remains in the immediate proximity of the ship. Yet this is what we know, but what remains unknown to the millions who buy fish. How will they react? It's not difficult to guess. They will accuse us, even if the fish has caught radiation thousands of miles from the *Komsomolets*. I repeat, it is enough for panic to begin and then all the curses will fall on our heads. I am all in favour of salvaging the submarine. And doing this as quickly as

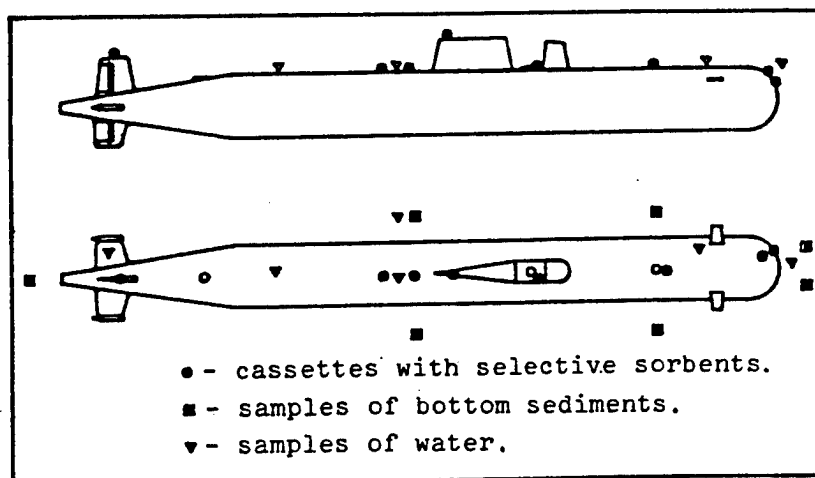
possible. Though this effort will cost us hundreds of millions of dollars. On the other hand, the country's treasury is empty. Therefore I suggest putting time off a little bit. But to somewhat mitigate the psychological pressure which the emergence of radiation will bring to bear on the adjacent countries, I suggest going down to the bottom and doing something to the submarine."

"Won't it be most effective to pull out the torpedoes with nuclear warheads?"

"We won't be able to get the torpedoes, but to close all openings with a quickly hardening substance—this is, perhaps, a way out of this critical situation. If we manage to seal the torn-off hatch in the area of the first compartment and several other openings, this will end the diffusional process. It will give us a respite of about six years."

"As I see it, all your worries are solely about the submarine, but lying on the bottom, some 300 metres from the hull, is the escape chamber which still contains the bodies of several sailors, including that of the commander. Why doesn't the chamber worry you?"

"Indeed, we lost it in the White Sea at a low depth. I agree that it was probably wrong to ignore this omen. But try and learn what lies in store for you. The most important thing the navy has accused me is of not testing a single chamber on any submarine at the maximum depth. I have been bluntly told: the *Komsomolets* crew's tragedy lies in the fact that the chamber did not depart from the submarine's side because of a design fault. I shall tell you why this happened. It is the first time I have talked about this. It is horrible to accuse the dead, but the crew is to blame. Before using something there is a need at least to know what this something is. The submarine *Komsomolets* had a unique structure for casting off life rafts. When the crew were leaving the ship, nobody was able to use them, and everything went down the drain. Now about the escape chamber. None of them has been tested at a depth of 1,000 m. Everything had been verified in theory but not in practice. The chamber did not depart from the *Komsomolets*. Neither could it depart. The men did not know what to do in such a tragic situation. There had to be drills, but try and push 70 men into a chamber in the conditions of dead silence at a depth of one kilometre, when the sun is shining and nothing is threatening your life. You cannot even imagine how horrible the world of this depth is. The



mere thought makes the hearts of even experienced submariner shrink. Who is willing to take a great risk when the guarantee of life is nothing but the designer's word. It is better to send everything to hell and not get out of the sub's most durable hull. And people actually did that. I could not compel them. I had no right to constrain people. I only persuaded them. But the underwater world at a depth of 1,000 m has a repelling effect."

"Why then is it necessary?"

"In terms of noisiness our submarines are dozens of times inferior to American ones. They are defenceless at high speeds. The depth of a thousand metres radically changes the situation. That is why we had been striving for it when developing the *Komsomolets*. And she would have coped with her mission with flying colours had it not been for the tragedy of the spring of 1989. But it is too early to write off the submarine. We shall salvage her by all means. She still presents colossal value. And not only as 6,000 tons of titanium. Her secrets are still inaccessible to others."

In parting, I asked the academician: "April 7, 1989—was it the darkest day in your life?"

"There were even darker days. It was even more horrible when I received a telegram about an accident on the first Soviet nuclear submarine. That was in 1963. Everything there was close to me—both the ship which I had designed and my friends with whom I had studied in St. Petersburg. Fighting for the ship's survival, they were climbing literally naked on the reactor. Lacking experience, they did not know what was awaiting them. But I already saw the future. And so it happened. Quite a few died at once, but many were dying before my eyes. I, for my part, could not do anything. That was where there was the greatest pain. True, even today I have a lump in my throat as I imagine how the *Komsomolets* is lying on the bottom, with the chamber next to it, and in them there are people for whose death I am in general also to blame..."

There is a sad ring in the following line of the latest report: in this area of the reactor compartment the existence was found of the isotope of strontium 137. What does this mean? Maybe the washing away of the 116 kg of concentrated uranium which are still hidden behind the steel armour of the reactor has started?

Naval experts say: this is not terrible, all this is at the negligible level of atoms.

Maybe, so far it is not terrible. After all, even they know how titanium eats up steel in salt water, how an iron pier melts away in two or three months when a titanium submarine presses itself to it.

Does it mean that Igor Spassky is right—there are only a few years in the reserve?

"Spassky deliberately lays the paint on thick when describing the danger to procure the money needed to prolong the life of his bureau which has already been cut by half."

The above is also a position held by competent people. I listened to them as well. But who is right? And who is lying? So far this is unknown. At the close of the year the problem of the *Komsomolets* will be discussed by the government of Russia. It will also solve the destiny of the submarine—our national pride—which is breathing out radioactivity in the Norwegian Sea at a depth of 1,700 metres....

Specifications of KA-25 Helicopter

93UM0290A Moscow KRASNAYA ZVEZDA
in Russian 15 Dec 92 p 2

[Article by KRASNAYA ZVEZDA Correspondent Sergey Prokopenko: "The KA-25: Shipborne First-Born"]

[Text] Major work on the development of a powerful ocean navy began in our country from the mid 1950's. The intense development of the submarine fleets, the appearance of nuclear submarines that have a great speed, depth of submergence, and cruising capacity, forced us to seek effective weapons to combat them. In the opinion of the experts, shipborne helicopters that are capable of operating while hidden from submarines and at great distances from the ship are best able to deal with these tasks. Furthermore, the missions of reconnaissance, target designation for ship weapons, minesweeping, and the performance of rescue, transport and other missions are assigned to shipborne helicopters.

In 1958, the OKB [Experimental Design Bureau] under the leadership of N.I. Kamov received the task to design and build a combat helicopter for the Navy. Using the experience of the construction of light coaxial helicopters that it already had, the OKB collective developed the first coaxial design shipborne combat helicopter—the KA-25.

We need to point out that the development of native shipborne helicopters followed an original path that had no analogies in world practice. The experience obtained during tests of the KA-10 and KA-15 light coaxial design helicopters suggested the use of the coaxial design of the rotors would permit the development of a helicopter having good maneuvering characteristics and stability with small dimensions. So, at the same take-off weight, the coaxial design helicopter is 1.5 times shorter than a single rotor design helicopter. This permits placing a greater number of aircraft on a ship and substantially increases its combat effectiveness.

Flight Technical Specifications for the KA-25 Helicopter	
Take-Off Weight, in Kilograms	7,200
Engines	GTD-3F
—Take-off output, in horse power	2 X 900
Maximum speed, in kilometers per hour	220
Cruising speed, in kilometers per hour	180
Flight range, in kilometers	450
Flight duration, in hours	3
Service ceiling, in meters	3,500
Main rotor blade diameter, in meters	15.7
Crew, men	2

EQUIPMENT

Sighting, flight-navigation and radio communications equipment

WEAPONRY

Antisubmarine warfare weapons systems

Complex technical problems were successfully resolved in the process of testing and refinement of the KA-25. Specifically, an automatic stabilization system for the helicopter and the revolutions of the main rotors in flight was developed, "earth resonance" oscillations were eliminated during landing on a pitching deck, a system for automatically folding the main rotor blades to reduce the dimensions for storage was developed, a special pyramid-parallelogram type landing gear was developed, and an electrothermal anti-icing heating system for the main rotor blades and a heating system for the engine air intakes were developed. Several special search-strike complexes of equipment and weaponry with a radar site were developed. The problem of compatibility—the mutual adaptation of the helicopter and the ship platform—was solved. Many of these design decisions were realized for the first time not only for native but also for the world practice of helicopter design. The solution of these problems ensured the combat

employment of the helicopter in all water areas and at various speeds of ship movement in any water and meteorological situation, during the day and at night. The KA-25 helicopter conducted its first flight at the end of 1960 and was demonstrated at the air show at Tushino in 1961.

The KA-25 antisubmarine warfare helicopter became the base for the development of a series of modifications for over-the-horizon reconnaissance and target designation, search and rescue, towing sweep gear and linear charges, and the performance of other tasks. The high qualities of the KA-25 helicopter were demonstrated during mine clearance of the Suez Canal in 1974.

The KA-25 helicopter was developed as a specific combat system for the first time in the practice of native helicopter design. As an element of the weapon systems of ships. And it has proved itself.

INTERREGIONAL MILITARY ISSUES

Wives Protest Deployment to North Ossetia

93UM0223A Moscow ROSSIYSKAYA GAZETA
in Russian 14 Nov 92 p 1

[Report by ROSSIYSKAYA GAZETA correspondent S. Shipunova: "Revolt on the Runway"]

[Text] We told about several helicopter squadrons hastily withdrawn to Krasnodar Kray from foreign territory both adjacent and distant in the article "Severed Wings" in the 29 September 1992 issue of SOVETSKAYA ROSSIYA. Since then little has changed in the lives of the officers and their families in the small Kuban town of Korenovsk. The main problem—where to live—has not been resolved. Despite the approach of winter, some of the families are still suffering in unheated cabins of a summer Pioneer camp. Others are huddled together in private apartments, and the enlisted men live in tents.

Other events have recently shaken up this uncomfortable military post, however.

During the evening of 31 October the airmen were placed on alert, and early the next morning fifteen crews took to the air in full combat gear. Where did they go? For how long? The wives of the airmen did not know this. A day passed, then another, and the rumor spread throughout the post: "It seems our men have been sent to North Ossetia."

The command element was forced to confirm that the crews had been sent to Vladikavkaz. The wives of the officers and warrant officers then announced that they were protesting their husbands' involvement in the settlement of an international conflict. Some of them took their small children and headed for the airfield to "seize" the combat machines and prevent them from taking off.

The "capture" was successful (incidentally, there is no one even to guard the helicopters), but not for long. Representatives of the command element soon succeeded in convincing the wives to halt their action and not let their husbands down. The latter would simply be punished.

For a day, and then another, they gathered for a meeting and demanded that someone from the command element of the North Caucasus Military District issue an order. And their demands were met. Representatives of the district headquarters arrived in Korenovsk from Rostov.

"They assembled us in the preflight briefing room," the wives of the airmen told us. "They hung up a map of the North Caucasus and started to explain the political situation in the region, actually to give us a political briefing."

"One thing I did not understand from the explanation by our commanders. If, God forbid, my husband should be killed there, what would I do? I have neither an apartment nor money, just two children and some suitcases."

The situation of the officers' wives is indeed tragic. None of them has housing, practically all of the women are without work, and many of them have not yet even received moving expenses, although they left Poland or Germany back in May and June.

Like the enlisted man, an officer cannot disobey an order. But how does one explain to the officers' wives (most of

them quite young women) that the order was correct? On the one hand, if there is a war, who should be there, if not the military? On the other, to fight means to kill. Kill whom, when all of the participants in the war are fellow countrymen?

The "women's revolt" was begun by what might appear to be a small thing: lack of information and a hush-up of the truth. Its causes go deeper, of course. They lie in unprecedentedly harsh treatment by the state and the society of their army. Humiliated and insulted, kicked out of everywhere and without rights, doomed to deprivations and demoralized, it has now been thrust into the vortex of a civil war!

107th Motorized-rifle Division Leaves Vilnius, Ukmerge

93UN0552A Vilnius LETUVOS RITAS in Russian
4-11 Dec 92 p 2

[Article by T. Juknevicius: "Russian Troops No Longer in Vilnius"]

[Text] "Russian troops are no longer in Vilnius. The 107th Motorized Rifle Division has taken its stores and equipment out of the capital and Ukmerge," Stasys Knezys told LETUVOS RITAS. Knezys is an authorized representative of the Lithuanian Government on matters of the withdrawal of Russian forces.

He stated that motorized rifle troops, air defense units, and airborne assault forces are leaving Lithuania in timely fashion. The time frame for withdrawal of aviation, however, will apparently be extended to the spring. In the meantime, Russian naval forces linger in Klaipeda. Rear services and other specialized units will be extracted last.

S. Knezys acknowledged that problems have arisen regarding protection of military stores and equipment left behind. The Government representative is aware of a great many instances where equipment, materiel, fuel, oil, and lubricants have simply been stolen. It is practically impossible to control this. S. Knezys presented these facts to law enforcement organs and received the following reply: The procuracy has instituted criminal proceedings. When asked how many of these cases have been concluded, the representative was unable to respond.

UKRAINE

Psychologist on Increased Desertions, Discipline Problems

93UM0167A Kiev NARODNA ARMIYA in Ukrainian
29 Oct 92 p 1

[Article by military psychologist Major P. Leshchenko, Carpathian Military District: "A Proposition—The Old Illnesses of the New Army"]

[Text] *It was an unexpected phenomenon at first glance. But it really is so. The number of violations of military discipline and absences without leave from units—or, in other words, desertions—increased at once as the process of development proceeded in the armed forces of independent Ukraine. This fact elicits indignation and astonishment from both the professional military and from people who are not connected with the army. After all, how can all of this be explained? The*

"imperial" army had interethnic, and largely unhealthy, relations, various national groups and other sources of violations of military discipline. But what about now? We have our own army in which are serving the citizens of one state, not serving someplace out there "over the horizon" but almost at home, serving their own homeland. But there are more extraordinary incidents and crimes now than there were before. The increase in the type of crimes such as absence without leave from units is especially surprising.

Occupied by my official field with these problems, I have come to some conclusions with regard to the increased amount of desertions and other military crimes. I will try to set forth my own point of view on this problem, and hope that this will be at least some contribution to the cause of developing the armed forces of independent Ukraine.

The main thing, in my opinion, is the fact that we inherited many shortcomings from the Soviet Army, including impulsiveness. And now we try to change the order in the army with one, correctly promulgated order. But when it does not have any results, as often happens in life, another one is born—more strict, and after it even more strict etc.

As for results, we have now reached the point where sentries from among the officers are put out at night with one mission—not to let anyone out of the barracks. Some inspections not foreseen by the regulations are constantly being conducted, and each sentry is checked three times a shift by the commanders and superior officers. Things are coming to paradoxes—it is not the sentry guarding the facility entrusted to him, but rather he himself being guarded at that facility by officers designated for inspections.

And thus we, having the aim of creating in the country mighty armed forces on a democratic basis, have gotten something like the GULAGs, where the soldiers are remade into the ideal Stalinist, heartless "cogs" without their own thoughts, will or rights, while the officers become something like their guards and overseers. No study is possible in this situation. Combat training has been reduced to a minimum. The command has already had to stop some combat training and engage in restoring order and discipline (this is, by the way, yet another example of impulsiveness) twice already in our formation, for example, over just the three months of the summer training period. The army is being remade into a sham office. What is the cause of this?

The process of democratization in the country is still proceeding more or less successfully. Youth have already had time to taste the spirit of democratic freedoms before conscription. But upon reaching the ranks, the young person runs into arant conservatism, with barracks procedures that are sometimes worse and more strict than in the "imperial" army. He often gets into conditions where he is deprived of initiative for spontaneous activity and even, one might say, of will. This, of course, provokes subconscious protest in a normal person. The overwhelming majority of the soldiers and NCOs, due to their little experience in life, express that protest in acts that, from a legal point of view, cannot be called other than violations of discipline or crimes.

By resorting to stricter measures with the aim of instilling regulation order, we give rise to even more protest and, as a consequence of that, an increase in the quantity of violations of military discipline, as is indeed confirmed in practice.

In order to fight criminality, it is therefore necessary to eliminate the causes that give rise to it. This process is very long and difficult, but if it is implemented, it should lead to a situation where crimes in the army become an exceptionally rare phenomenon.

Democratic changes should be incarnated for this, I think, in the army of a democratic state such as Ukraine should be.

The foundation of the army comprises people—officers, warrant officers, NCOs and soldiers—who are citizens of one state, and have equal rights and obligations under the law. Both officers and soldiers are sworn to protect the borders of their native state. The difference is that the former are professionals who have sworn to serve their lives in the army, while the latter are serving a brief military obligation. The difference is also in the measure of responsibility. While a soldier has to be responsible only for his own actions, and the sergeant for the actions of his squad, the officer is responsible for the subunit, unit etc. Which, I repeat, all should be responsible for.

But responsibility has in practice virtually been removed from the soldiers and NCOs. A sergeant in particular is separated from the command of his subordinates, and remade into a soldier "in disguise." Then he simply cannot be responsible for the actions of his subunit. Matters are not far from absurd when a soldier can be remade into a puppet without initiative, without even his own thoughts, and guided by an officer in even the simplest of situations. We have already reached the point where, even when a signals soldier goes to unwind a spool of telephone cable, we send an officer or warrant officer with him.

I think that in order to alter this state of affairs, we have to teach each to be responsible for his own area of the common cause. That will also, from my point of view, be a genuine democratization of the army, where each answers for his own actions and his own work to the same extent. That is also equal rights. And here the problem of carrying out the daily duty roster will move to the fore, when each serviceman will know firmly at what time he should be in formation, be in classes and the like. He will be able to plan his own time independently. In that case, first of all, responsibility will appear for the soldier for his own actions and, second, more free time will appear—paradoxical as it may seem—that he will be able to utilize to advantage, and not be sitting and waiting for a sudden command for the next forming up or immediate inspection. We will, of course, achieve nothing just with the one order, "All carry out the daily routine!"

It would appropriate to start with the most elementary. The need may arise to divide a subunit into two parts—with one group of soldiers those who have no complaints regarding the fulfillment of the daily duty roster, who come independently to all functions stipulated by the roster and, as was mentioned above, are able to be responsible for themselves and their subordinates. The others are those who have not yet learned this. These people should spend

time under the strict monitoring of officers, all their time in the formation, under supervision and without a free minute.

The service of officers will thus almost not differ at all from the situation today, if they feel themselves in the role of overseers. But with time, if it gets through at last to the main body of the servicemen that democracy is not universal license but rather, first of all, responsibility for your own actions and the matter entrusted to you, the need for the second group will recede. For even if the soldier is far from a Socrates, he will ultimately understand that it is easier to live if you feel yourself a free person and not some robot constantly held on a leash, under control and guard. It should ultimately come to everyone that order is order, and it is better to live with the army routine.

I repeat, however, that this result cannot be achieved all at once, and hardly by just issuing the corresponding order—which will require work and, possibly, more than one year. Though it is, from my point of view, better to work intensively for a few years than to spend one's whole career tormenting oneself and people rather than serving.

My conclusions, of course, go against the grain of the latest orders and directives pertaining to the strengthening of military discipline, which demand monitoring of the personnel every minute and around the clock on the part of the officers. Most skeptics will naturally say that if monitoring every minute does not help, then how can we give up monitoring altogether? A question suggests itself here—why treat the personnel like potential criminals who need to be strictly guarded or watched? The treatment of people, after all, always gives rise to their actions.

In creating a new army that is suited to the democratic state that all of the progressive majority of our country is working toward developing, we need only reject the inhuman relations that predominated for the most part in the Soviet Army and only created the corresponding conditions for servicemen, and we can expect from them a suitable attitude toward the fulfillment of their sacred duty—the defense of the motherland.

Supreme Soviet Discussion of Military Doctrine Reviewed

93UM0167B Kiev NARODNA ARMIYA
in Ukrainian 30 Oct 92 p 2

[Article by Lieutenant-Colonel Vasyl Bilan and Major Anatoliy Kolomiyets under the rubric "Parliamentary Diary": "The Defense of Ukraine Has to Be Sufficient—The First Reading of a Draft Military Doctrine for the State Takes Place at the Supreme Council of Ukraine"]

[Text] *We note from the very beginning that the deputies observed that the military doctrine, due to its particular importance, should not be called the "Voyenna doktrina," as in this variation, but rather the "Viyskova doktrina." The argument cited was quite a strong one: "Voyenna" [military] is from the word "war," and it is emphasized in our conceptual framework that Ukraine rules out the propagation of war in any of its forms. So it has to be called the "Viyskova doktrina" from the word "viysko" [army]. Considering the positive reaction in the hall to that idea, the name of the document will probably be changed.*

NARODNA ARMIYA has already reported to its readers the arduous and intensive work that accompanied the development of the draft doctrine. More than a hundred and thirty recommendations and changes were expressed and taken into account during its discussions in the parliamentary commissions alone. The draft of the document was reviewed and approved by the Defense Council of Ukraine. The presentation of it at the session of the Supreme Council was entrusted to Minister of Defense Colonel-General Kostyantyn Morozov. An accompanying report was given by Chief of the Commission on Issues of Defense and State Security Valentyn Lemish.

In his fifteen-minute speech, the minister of defense indicated at once that the principal question that had been raised during the discussion of the draft at the sessions of the Commission for Defense and State Security was, Will Ukraine be a nuclear power or not, and a member of an alliance or not? Kostyantyn Petrovych, in answering that question, formulated the position of the Ministry of Defense in reference to this important problem. To wit: the proclamation of Ukraine as a nuclear power does not have realistic foundations, and does not correspond to the economic capabilities and strategic interests of our state at the present time. The availability of nuclear weapons alone, after all, cannot define the status of a nation as a nuclear one. Ukraine does not possess the technologies or capacity to produce fissionable materials for military purposes, and does not have the corresponding scientific and technical support, as well as the manpower or the means, to provide full security for the nuclear charges that exist. The future possession of nuclear arms by Ukraine is possible only provided the appropriate agreements and treaties are concluded with Russia for scientific and technical support for the servicing of the nuclear weapons. Aside from that, the minister thought, the retention of the status of a nuclear power would cause doctrinal changes in all of the legislation on military issues that had been adopted so far, and would be a violation of the Proclamation of Independence of Ukraine and many other documents. As for the policy regarding alliances, the draft doctrine indicates that in the event that aggression is being prepared against Ukraine, it does not rule out the possibility of acting in conjunction with other states for the purpose of thwarting or repelling an attack. Many deputies, however, were conducive to the idea that we have to move in the direction of shaping collective security.

The question of the non-nuclear status of our state is so intricate and attractive in a political regard that it did not pass without notice in almost every speech. The deputies were especially troubled by this in particular: could the strategic arms that are located on the territory of Ukraine be utilized by another state for an attack? The minister of defense indicated on that score that today our President, the commander-in-chief of the armed forces, has the capability of defense using the nuclear arms from the territory of Ukraine. He still has administrative control over their non-utilization. We are persistently advocating that Ukraine have technical control as well, but how Russia feels about that is obvious.

There are many ideas surrounding this problem. The main ones among them can be reduced to making the nuclear missiles into a weapon of restraint temporarily, until their

complete destruction, and if we are to get rid of this type of arms completely, to do so at the same time as the other nuclear powers. As for the rest, the minister of defense indicated that the prior idea and obligation of Ukraine to destroy nuclear arms by the year 1994 has been corrected, because the situation surrounding that issue has changed. Our state, in proclaiming its obligation to destroy nuclear weapons before the end of 1994, announced at the same time that it was prepared to accept financial and technological assistance from countries that support us in that political decision. But we have not received any such assistance over that time. Ukraine has moreover taken its political course and become a full-fledged member in the realization of the START agreement, which envisages a different deadline—seven years—over the span of which the question of Ukrainian possession of nuclear arms may be resolved in a more considered fashion.

People's Deputy Stepan Khmara had a particular idea—it is necessary to proceed from the realities that exist in the world today. We will thus not give up our intentions. But by not possessing a nuclear potential, we will, at any rate, at the very least not have the force of restraint that nuclear arms perform. If that is not the case, we will have to have a colossal army, which we cannot allow ourselves in accordance with certain economic conditions.

There were differences of opinion among the deputies (and that is a normal phenomenon for the Supreme Council) on literally every section of the draft doctrine, of which there are three—the military-political, military-technical and military-economic aspects. The formulation of propositions from them was accompanied by an analysis of affairs in our armed forces, which are, as a rule, negative in tone. Sharp criticism was directed in particular at close associates of the minister of defense, approaches to re-organizing the system of military higher educational institutions, the state of morale among the troops, the principles and methods of ideological and military-patriotic indoctrination of the personnel and the host of examples of the selling off of military matériel. Most of this list is not doctrinal norms, but the very fact of their expression in the session hall affected the final decision: the draft doctrine should be returned for refinements.

Many well-formulated provisions doubtless ought to remain after this additional work on this most important military-political document of our independent state. The foundation of military-political policy has to be the provision that Ukraine will not be the first to begin military operations against any nation if Ukraine is not itself the object of aggression. Ukraine favors the resolution of all international contradictions by peaceful means and political measures alone, makes no territorial claims against any nation, considers no people its enemy and respects the independence of other nations. It seems that we have repudiated the class assessment of the nature of possible wars.

People's Deputy Mikola Porovskyy, always active in the discussion of military issues, proposed including in the doctrine the section "Priority Directions for the Development of the Armed Forces of Ukraine." He constructed the arguments regarding the benefit of his proposition on the experience of the war in Kuwait, during which it became understandable which branches of the armed forces are the

most effective and promising. Mikola Ivanovych had earlier published in *NARODNA ARMIYA* the article "Ukraine and Its Defense Policy," to which he referred from the podium of the session. There were quite a few readers' responses. And that gave him the right to propose including in the draft doctrine this time a provision to institute a system of early warning, which would be able to bring our armed forces to a proper level of defensive capability.

People's Deputy Oleksandr Bandurko observed that the doctrine is of a pacifist nature. There is no dignity, no patriotism, no pride in its lines. These categories, in his opinion, should be inalienable attributes of the document.

The speech by missile troops General and People's Deputy Volodymyr Tolubko was received with applause. He talked about modern new means of defensive warfare, the necessity of automating the system of command and control of the troops, space means for military support, methods of electronic warfare... This example was presented for confirmation. The utilization of an automated control system by the multinational forces in the Persian Gulf made it possible to shorten the command cycle—that is, the time from the receipt of information on a change in the situation to the start of the corresponding actions for brigades, divisions and army corps—by 2.5 to 3 times. And while only seven percent of the 89,000 pieces of ordnance used by the multinational forces were high-precision weapons, they hit 90 percent of the targets.

But the problem is much broader here. As Volodymyr Borysovych so aptly put it, it means little for the Supreme Council to proclaim independence—it needs to monitor the question of national security constantly, and provide favorable legislative conditions for the Ministry of Defense to create an effective armed forces.

The stance of the Ministry of Defense on the missile and space troops is clear-cut: Ukraine will have such a grouping as part of one of the branches of its armed forces and a directorate of the Ministry of Defense.

Much work lies ahead to refine the draft doctrine...

Discussion of Ukraine's Socio-Psychological Service

Criticism of Maj-Gen Mulyava

93UM0255A Kiev *VECHERNYI KIEV*
in Russian 22 Nov 92 p 2

[Article by Reserve Colonel Vladimir Chekalin under the rubric "Military Affairs: Polemical Notes": "Who Is Afraid of General V. Mulyava and Why?"]

[Text] It was late at night. An officer in charge of preparations for a training conference of the socio-psychological service staff sat at his desk. Suddenly he heard steps behind the wall. He called out: "Who is there?" and rose from his seat. The unknown person fled, leaving a stack of leaflets in the room next door. The leaflets contained attacks against the socio-psychological service and calls to restore party-political structures in the Ukrainian Army.

This fact alone indicates that the socio-psychological service, which is headed by Volodymyr Savvovych Mulyava,

has become a focus of attention. Some fervently support his ideas and actual transformations, while others criticize them, using the forum of the Supreme Soviet for this purpose, too. Thus, during the discussion of a draft military doctrine some deputies said that General Mulyava is "putting pressure" on the Minister of Defense, and that the service he heads uses the wrong methods of work. It is known that all things new are always received with ambiguity. Perhaps this alone explains why everybody is taking such a close look at the new structure in the army, all the more so because it has no analogies. The concept, which was developed by Volodymyr Mulyava as early as the 1980's, is aimed at conditioning conscientious, patriotic soldiers on the basis of unshackling the personality and establishing democratic relations within military collectives, rather than through the use of ideological dogmas.

I recall meeting Lieutenant-Colonel Aleksandr Poznyak, military psychologist of a surface-to-air missile unit, several months ago. Predicting the development of the atmosphere in conjunction with the young replenishments arriving (boys from Kiev and Kharkov), he warned the commanders: There will be frictions along the lines of groups of compatriots. He immediately gave recommendations concerning ways to maintain control of the situation. Measures taken in a timely manner prevented the recurrence of a new version of "dedovshchina."

The appearance of psychologists in the troops is affecting morale in the units (as of now, such specialists have already been appointed to 10 percent of vacant positions). The number of disciplinary violations on the grounds of "dedovshchina" has fallen by factors of three to four wherever they have begun to work.

The directorate of Major-General V. Mulyava has done a lot to ensure that the Ukrainian Army begin to speak the state language and partake in the history and traditions of the Ukrainian people. This won him many supporters among the intelligentsia. Let us look at the imeni Taras Shevchenko All-Ukrainian Prosvita Society. Late last month the society, together with the Ministry of Defense, held an applied scientific conference "The Ukrainian State and the Ukrainian Army." Participants in the conference adopted an appeal to the president of Ukraine and the prime minister which included the demand that the concept of the socio-psychological service and its author, Major-General Volodymyr Mulyava, be supported.

Rukh also vigorously supports him. The fact that the mace of the Ukrainian Cossacks, which previously belonged to Vyacheslav Chornovil, was presented to him is convincing testimony. This was in appreciation of Volodymyr Mulyava's personal contribution to efforts to bring back the Cossack tradition in the army.

The leading cadres in the units are on his side, as an example which Volodymyr Mulyava recently gave at a press conference convincingly shows. The Minister of Defense sent a telegram to the troops soliciting their opinion concerning the expediency of creating socio-psychological service structures. The military councils of all districts and armies replied unambiguously: They are needed.

What is the attitude of officers of the main echelon, in divisions and regiments, who are directly linked to the reform activities of the socio-psychological directorate?

At the same press conference which General Mulyava attended, a NARODNA ARMIYA correspondent said that some officers do not subscribe to the style and methods of work of this directorate. I am also aware of many similar instances which indicate that in the units the attitude toward innovations is not necessarily favorable. What is the explanation for all of this? When this question was put to Volodymyr Savvovych, he explained:

"As our officers examine the morale and psychological atmosphere in the units, they frequently encounter unfavorable instances in the operation of individual commanders. Being honest and principled officers, they do not ignore outrages. Therefore, only people with tarnished reputations, who allow abuses to occur in the service, are afraid of us."

Perhaps this explanation sheds light on many things, but not all. For example, I know well why a disloyal attitude toward V. Mulyava on the part of some officers from NARODNA ARMIYA has emerged. When the status of the newspaper was under consideration, the socio-psychological directorate wanted to retain the right to give orders to it. Having just escaped the dictate of a military-political organ, the newspapermen resisted new enslavement. The problem was solved only through the intercession of the minister of defense.

Many officers to whom I have talked got a peculiar impression of the conversations they had with certification commissions. For example, how would you answer the following question, which they asked not so long ago during these conversations: "If necessary, will you fight ...?" And they named a neighboring state from which the officer in question hails. Let us also look at a piece of advice which Ukrainian nationalists address to those who are now building the army: "Through powerful ideological departments, the Ukrainian Army should impart to the consciousness of each young man the idea that the Ukrainian people are the victims of the expansion of the Russian nation." These are the words of Anatolyy Hryshchuk, whose article was published in the central organ of the Ministry of Defense on 17 September. Who has studied how officers of Russian nationality, who are in a majority in the Ukrainian Army, perceive this? Let us look at the humanitarian training which has replaced political training, and which is overseen by the socio-psychological directorate. A group chief told me:

"My grandfather was killed by Bandera's men in 1946. Meanwhile, in classes I am supposed to cover in depth for my subordinates the following topic which was assigned to the units from the socio-psychological directorate: 'The Time and Causes for the Emergence of the Ukrainian Insurgent Army and Its Operations During the War.'"

These facts alone may indicate, to a degree, that the new structure has certain difficulties; there are unresolved problems and even shortcomings in its work. As a matter of fact, General V. Mulyava himself acknowledged this at a meeting with journalists. As I see it, life will make adjustments in his concept, just as it does in any new endeavor it occasions. This is also acknowledged by the

Minister of Defense, Colonel-General Konstantin Morozov, who said the following about this concept in an interview with a correspondent of a military newspaper: "The work goes on... Opinions continue to differ, as well," particularly concerning the following issue: Should the position of chief of the socio-psychological service confer deputy status? Some believe it should. The minister sees it as follows: Power functions are not the main point in this instance but rather working with people and assisting them during their service. All of this is built into the concept of General V. Mulyava. It is another question as to what currently prevails in real life: the striving to come closer to the people or to have power over them? It appears to me that for now it is the latter.

Military People's Deputy on Socio-Psychological Service

93UM0255B Kiev NARODNA ARMIYA
in Russian 3 Dec 92 p 1

[Article by Colonel Valeriy Izmalkov, people's deputy of Ukraine, under the rubric "A People's Deputy Is Asking for the Floor": "Which God Will We Worship? Or Thoughts on Account of the Activities of Some Officials in the Ministry of Defense of Ukraine"]

[Text] I think that many readers have become interested in the following question: Somehow many articles have recently been published glorifying just one name, that of General V. Mulyava.

The dissatisfaction of a considerable segment of generals, officers, and warrant officers with the cadre policy and the process of reideologization of the army could not leave Supreme Soviet deputies indifferent. As a result of distortions in this sphere of military life, criticism was leveled exclusively against Minister of Defense of Ukraine K.P. Morozov. Unfortunately, no other way was found to counteract the processes of introducing nationalist ideology and practices in the army.

I would like to begin with the fact that Mr. V. Mulyava himself recently published an impressive article in the newspaper. Were it not for actual practices, a monument to fighters against totalitarianism could be erected based on the upshot of the article. What about actual practices? The scope of the glorification of Mr. Mulyava in the press is comparable to the scope of the laudatory, ingratiating praise of Leonid Ilich in our totalitarian past. I have received about 100 telegrams, understandably, all of them in defense of Mr. Mulyava. This would be fine, except that two things appeared regularly, suggesting certain conclusions. Half of the telegrams refer to me by my last name. I have already gotten used to two out of three people repeating it with mistakes the first time around. My last name in this half of the telegram is not distorted once. At one point, two years ago, I received many letters (at the time, I spoke at Supreme Soviet sessions very frequently, and my last name was pronounced and lit up on the display board as many times). In two out of three letters my last name was written with mistakes. The second thing that occurred regularly is as follows: About one-half of the telegrams have absolutely identical text, and only the address of the senders differ. These are methods which we are familiar with from Suslov's practices...

As abundant as articles about Mr. Mulyava are, there has not been a single critical article signed by an active duty serviceman. Criticizing the gentleman in question is possible at present only in an absolutely confidential setting. This is a practice from our recent communist past which has reemerged.

Incidentally, about our communist past. At present, the fact that Comrade Mulyava was expelled from the CPSU is considered to be one of his main heroic deeds. I think that the diligent biographers of this fighter against communism would be surprised to find appeals by the ex-communist Mulyava to the Party Control Committee of the Communist Party of Ukraine Central Committee and refusals to readmit him in party archives. However, if some of the most diligent biographers find a way to the Moscow party archives they will also be able to find an appeal by Volodymyr Savvovych to the Party Control Committee of the CPSU Central Committee and finally, kind permission to return to the ranks of the CPSU. His persistence is commendable.

At present, the socio-psychological service, nurtured in the Armed Forces by the father of democracy, has taken the place of the 1918 commissars. Such commissars have not been appointed to all military units; however, this is precisely the case in the Ministry of Defense itself. But for some reason the main purpose of such control "on the sly" is to find "enemies of statehood" selectively, with last names ending in the letter "v," rather than "enemies of statehood" in general. The most zealous proponents of this approach came up right away with the slogan "Ukraine for Ukrainians." For example, the fact that a general (chief of a military school, of Ukrainian descent), together with his wife (Russian), had their son registered as Russian 30 years ago became the main and only reason for a refusal to certify him. Do you need more facts?... Perhaps even S. Petlyura himself would have shrugged his shoulders in disgust had he been aware of such facts.

The results of a supposedly sociological survey emerged from the socio-psychological service which suggest that more than 40 percent of ethnic Russians swore loyalty to Ukraine for mercenary rather than patriotic (!) considerations. Where is this gibberish coming from? After all, throughout the world people go to serve in the army because of high salaries and social guarantees. To what land did Aleksey II, the heir to the Ukrainian throne and general of the Spanish armed forces, swear allegiance? To what land do ethnic Ukrainians—citizens of the United States, Canada, France... swear allegiance as they join national armies? How, and in what kind of a sick mind, could the question arise which is asked of officers who have taken an oath: "Why did you take it?" This officer has a home, wife, and children here, and he swears to defend them just as well as Mulyava's children.

As is known, history does not bear the subjunctive mood. Nonetheless I would like to ask: What would V. Mulyava have said had he been the U.S. President and had General Shalikashvili, a Georgian, been proposed to him for the post of commander of NATO Joint Armed Forces in Europe? What would he have said to a proposal to appoint General Schwarzkopf, a Jew, to the position of commander of Allied Forces in the Persian Gulf?

I would like to end with words from the book "Tragedy of Ukraine," written in 1923 in Berlin by Ukrainian public figure N.M. Mohylyansky: "Vynnychenko, Petlyura, and other Ukrainian patriots drowned all of Ukraine in blood and tears... Compared to the deeds of Petlyura's, men to whom, according to imprecise data, up to 100,000 people have fallen victim, the Chisinau events (Jewish pogroms—Valeriy Izmalkov) appear to be a children's fairy tale..."

So, which God are we going to worship?

FROM THE EDITORIAL OFFICE. Following rebukes and accusations leveled against the socio-psychological directorate of the Ministry of Defense of Ukraine in the forum of a Supreme Soviet session, quite a number of articles in defense of this new structure, including those by the staff of this directorate, were contributed to the editorial office. We have published some of the articles.

Today we are publishing an article by a people's deputy of Ukraine who has a different point of view concerning the issue raised and who, proceeding from his status as a parliament member, insistently demanded that the editorial office give him newspaper space.

The editorial office is hereby bringing this to an end, in view of the fact that the discussion concerning the socio-psychological directorate of the Ministry of Defense of Ukraine is getting hot and that more often than not ideological emotions are taking the place of arguments. Resolution of the issue of whether the socio-psychological service is needed in the Armed Forces, what this service is to be, and who should head it falls within the jurisdiction of the leadership of the Ministry of Defense. It is our task to show its actual operations, incidentally, along with those of all other structures in our military organism.

Two Views on Socio-psychological Service

93UM0260A Kiev NARODNA ARMIYA
in Ukrainian 2 Dec 92 p 2

[Two articles under the "Thinking Aloud: Two Letters on One Topic" rubric; the first by Colonel Henadiy Kislov: "Whom Does the Intrigue Benefit?"; the second by O. Hubko, associate of the Institute of Psychology of the Academy of Sciences of Ukraine: "Let Us Condition Soldiers From Their Childhood On"]

[Text] Many a lance has recently been broken because of the issues of the socio-psychological service in the Armed Forces of Ukraine and the conditioning of reliable defenders of our independent state. Finally, what is he, a soldier of the Ukrainian army, to be?

In countries where class, racial, or party dictatorships rule, there is always the temptation to make the people into "cogs," thoughtless executors of someone's will; during the time of totalitarianism, soldiers were transformed into "cannon fodder"... However, our nation has rejected the misanthropic system and embarked on the path of building up a democratic, rule-of-law, free state. Is it not precisely an unshackled, dignified, and free man in uniform that is capable of defending his free motherland the best?

Bringing out things human in each soldier and officer, and returning to the sources of national awareness which produces genuine love for one's native country and the readiness to defend it against aggressors—this is precisely what

should become the main subject of SPS [socio-psychological service] activities and the objective of conditioning soldiers in the departyized army.

Whom Does the Intrigue Benefit?

A political farce played out according to a scenario written by the supporters of the neo-Bolshevik party of Mr. Moroz in the Supreme Soviet in the course of the discussion of the draft military doctrine of Ukraine once again put us on our guard: People, be vigilant; the independent Ukrainian state is in jeopardy! Stalin's loyal falcons and their henchmen from among the party nomenklatura who cannot wait to see Ukraine in the yoke of a renewed Union have left the trenches and are prepared to repeat the bloody October 1917...

It is a pity that Communists have openly gone on the offensive in a struggle for the armed forces, and nobody notices it. Everybody pretends that nothing is happening.

There is a reason why the struggle for the armed forces is focused on the socio-psychological directorate of the Ministry of Defense of Ukraine and the person of its chief, Major General V. Mulyava. It is precisely through the efforts of the sociologists whom he has assembled, military and civilian alike, that the concept of this directorate has been developed. The main objective of this concept is to depoliticize the armed forces, that is to say, no place remains in the barracks for the communistic ideas of class hatred, and a hostile attitude toward people with different views, and so on. This is what frightens yesterday's powers that be.

The fact that the object of all attacks itself is absent is the most surprising point, because the socio-psychological service is merely coming into being. It happened as it did in a parable: A mother-to-be has merely stepped over the threshold of a maternity ward and has not yet given birth, but those around her are already dishonoring the child as "the Ukrainian Gestapo [Secret State Police]." This is precisely what happened to the socio-psychological service. The deputies vilified it in every way possible!

We have already encountered such perfidious methods a great many times. This style is painfully familiar. I remember a "communist-labor shock worker" denouncing Rukh [Ukrainian People's Movement] on television in 1989. When a correspondent asked him whether he was familiar with the program of this public organization, he stated with "proletarian frankness": "I have not read it, but I am sure that it is very bad." Precisely the same is the case today.

It is easy to guess what this is about. The big shots of the "leading and guiding" have lost an opportunity to impose their will. They are regrouping their ranks in order to mount a "decisive battle." They need time, whereas work on the depoliticization of the armed forces proceeded too vigorously. This is why they are endeavoring to hinder this process, though, if we were to be frank, the process has been quite actively hindered by these forces previously, as well.

Many specific examples may be given. However, the main objective of the supporters of the Union and Communists is to make it impossible to form the socio-psychological

service of the Armed Forces of Ukraine in any way at all. Is this not precisely the explanation for the absence of staff schedules of the socio-psychological service for each military unit? Such schedules have long been prepared, but they still have not been confirmed. Also, how are we to understand now the position of those who consider a concept of the socio-psychological service confirmed as early as March of this year to be void, and thus openly hinder the process of establishing its structures?

I, a Russian, cannot but be surprised when certain communist deputies fail to understand (or do not wish to understand) that our army should be brought up on patriotic traditions of Ukrainian arms from the time of Kyi to our days, including the Ukrainian Insurgent Army and the Soviet Army.

Of course, Communists who purposefully engaged in fratricidal war in Ukraine do not wish the common people to know about their antinational and antipeople activities. They do not wish the citizens of Ukraine to know about the national liberation struggle which communist propaganda did not refer to as anything but a bandit-SS [Elite Guard] movement. This is precisely why the concept of the socio-psychological service of the Armed Forces of Ukraine, in keeping with which a program for humanitarian training has been developed, does not suit the communist deputies, nor do the efforts of the socio-psychological directorate, which is being set up, to implement the Act on Declaring the Independence of Ukraine and the Declaration on the State Sovereignty of Ukraine.

The ideology of the national rebirth of Ukraine, and its independence is, in essence, a state policy from which all institutions should proceed. Why, then, is the effort to destroy the socio-psychological directorate, which advocates the state policy most substantively and persistently, being stepped up in our Armed Forces? After all, to destroy the basis for a state policy means to destroy the state itself.

It is as clear as can be who allowed the old forces to carry on an open struggle against the socio-psychological directorate, and to what end. Have the officers really forgotten that quickly how the communist cudgel wrecked their lives with the help of political organs and party committees? Perhaps, there are those who would like to bring back these institutions in order to corrupt human souls with renewed strength.

Who is unhappy about the concept of the socio-psychological service which sets the goal of promoting general human values among the personnel by noncoercive and nonrepressive methods, and why? Who is unhappy with the idea of the human personality as a value unto itself? Be so kind as to tell me what can be fairer than this? Is it the Marxist-Leninist theory with its man-hating essence and a class approach to the evaluation of events?

Could it be that some people are frightened by the introduction of the Ukrainian national idea to the system of conditioning? In this case, will you, Ukrainian gentlemen, explain to me, a Russian, on what idea should the Ukrainian Army be brought up and an independent Ukrainian state, for which more than 92 percent of the electorate voted in December of last year, be built? Is it the German, French, or perhaps Russian idea? If it is so, then, as the saying goes, why make all this fuss?

Who is frightened by the humanist and democratic content of the Ukrainian national idea, which does not run counter to the comprehensive development of other nations in the territory of Ukraine, and already provides legislative guarantees of all their rights at present? Only the blind will fail to see, and the deaf will fail to hear that precisely the struggle between communist ideology and the Ukrainian national idea is clearly expressed in the struggle for the army and its spiritual conditioning, and is directed against the structure in the army which generates it.

I request that my honorarium be transferred to the account of the newspaper.

Let Us Condition Soldiers From Their Childhood On

As we build a national Ukrainian army, we should establish an effective psychological service in it. This primarily has to do with shaping the national awareness of soldiers and officers. There are no problems in this area in countries with a lengthy experience of state independence. People come to the army with an already mature national awareness. However, since we live in a country, the civic, national, and human dignity of whose population has been crushed by the imperial regime, we should make a special, forceful effort in order to develop these traits in future preinductees and those who serve in the army. We should spare neither funds nor effort to this end. After all, a combat-capable army is generally impossible in the absence of this. There is a stream of rejects coming to the army: The young generation is spiritually and physically devastated by totalitarianism, a society devoid of the spiritual, Chernobyl, and so on.

The resolution of this issue with regard to all young people will certainly take a great many years, if we consider that old structures not only do nothing to condition patriots with national awareness, but also offer fierce resistance.

This is why we should concern ourselves first of all with officers, the main teachers of young soldiers. They should be nurtured from their childhood.

To my mind, we should create an extensive network of educational and conditioning establishments for young people on the pattern of the former Suvorov schools, in which the healthy personality of future officers would be hardened psychologically and physically. It is feasible to set up these establishments at the facilities of the already active children's and youth organizations: in western oblasts, on the basis of Plast, and in the Dnieper area, on the foundation of the Dzhury Association (young Cossacks). Cossack collegiums (lyceums) have already been set up in Kiev, Zaporozhe, and some other cities. Their number should be increased considerably. It would be worthwhile to create an equally extensive network of Plast lyceums (colleges) in Galicia, Bukovina, and Transcarpathia.

Together with patriotically minded colleagues, we developed in our institute relevant programmatic documents, a scientific-methodological substantiation for such efforts. They are "Concept of National Education in Ukraine," "Concept of National Upbringing," "Concept of Cossack Pedagogy," "Cossack Collegium Concept," the program and statute of Dzhury, the program and statute of Plast, and so on. We may include in this the "Concept of Psychological and Educational Work in the Ukrainian

Army." It is extremely necessary to publish all of these documents as a separate collection. The army could become a sponsor-publisher of such a publication. This work would become a reference book for the education officer.

Since certain structures of power in the east and south of Ukraine regard Cossack collegiums and Plast colleges with equal suspicion, such establishments over there may be simply called military lyceums. All of these general establishments of secondary education with a military-patriotic emphasis could be located in vacated military schools and at former military settlements. Out of 34 schools and academies in Ukraine, it is envisaged to keep only nine. Besides, a great many military settlements will be vacated in conjunction with sharp cutbacks in the army. Even now, the army does not know what to do with these military settlements. They are being demolished; they are being plundered and taken apart. Meanwhile, there are entire settlements with all communal services and amenities. Regular schools cannot even dream of such comfort and scale. This includes spacious classroom buildings, mess halls, and consumer services combines, residential buildings for instructors and support personnel, and dormitory buildings for boarding school students (however, many of their wards will come from nearby cities and villages; there will also be orphaned children). There will also be enough room for workshops, gymnasiums, concert halls, day care centers, greenhouses, hothouses, and minifarms (the schools will have land, gardens, and livestock for their own needs).

We should mention in particular orphaned children and children from the Chernobyl zone and ecological disaster zones. The latter would be safe here from radiation and lethal chemicals, whereas the former would have a truly interesting childhood and a guaranteed, secure future.

This is why orphaned and semi-orphaned children of Ukraine should become wards of the army. This would amount to not only a humane act on the part of army personnel, but also a reliable reserve for the army. After all, year after year, young people are increasingly reluctant to go to military schools, and less willing to serve in the army on a professional basis. The wards of these lyceums will come eagerly, and not because they have nowhere else to go, but primarily because the army will have already become a native, natural environment for them in the aforementioned military schools of ours.

BALTIC STATES

Butkevicius Assesses Defense Needs

93UN0540A Vilnius EKHO LITVY
in Russian 25 Nov 92 p 3

[Interview with A. Butkevicius by V. Kuznetsov; place and date not given: "Andrius Butkevicius: 'Sooner or Later We Will Be Part of European Security Structures'"]

[Text]

[Kuznetsov] Mister Minister, what are the goals and tasks of your agency and what problems are confronting it today?

[Butkevicius] The principal goal of our ministry is practical implementation of the government national security policy which is one of the most important links in the policy of the state as a whole. As commonly known, there are three main areas in which the state realizes its policy: economy, culture, and national security. The overall vector in these areas is the policy of the government as a whole which we are implementing with our colleagues in the Ministry of Foreign Affairs. We bear the responsibility for a highly important and concrete segment of that policy. The main process currently occurring in the world is marked by a rise in stability and security. All of the world forums taking place in Europe and the world are discussing these issues. Naturally our government must have its own view concerning all of that, represent its interests, and establish bilateral ties with neighboring countries with which it has common security interests.

Each ministry has its own operational framework. Our fundamental documents are now in a stage of development. The first one is the concept of national security, which has been discussed in the government, and must now be adopted by parliament. In it the people of Lithuania formulate their understanding of external threats, ways of neutralizing them, and basic principles underlying the functioning of structures for defense, maintenance of domestic order, and the activity of intelligence services are cited. As you understand all of these structures in one way or another limit the opportunities, and in some sense, even the rights of the citizens of the country. In certain countries these structures receive more possibilities and rights, and in others—less. The amount of personal freedom we are willing to give up to these services and the number of rights we are going to grant them must all be covered in that document, proceeding from an understanding of the real situation.

The second document which stems from it is the concept of the defense of the state which speaks about the defense structures that are created by the government. The third document specifies the defensive activity of the state. The first two documents are open, whereas the third and the most fundamental one is secret. The activity of the ministry itself is governed by a regulation that is adopted by the government while the concrete defense structures have laws in accordance with which they act. The border forces, for instance, were the first to be created and today consist of 5,000 persons. Their service is governed by two laws—"On the border" and "On the border service," while that of the territorial defense structures—by the law "On volunteer service." The call to military service is covered by the law "On compulsory military service," and internal regulations are determined by the law "On service in defense of the region." These are followed by documents stemming from them and covering the concrete duties of subunits and military personnel in various situations. That is the legislative framework within which we work.

As you understand we attempted to leave as little room as possible for independent action. After all the system of security is not only a very expensive thing, but also a double-edged weapon. Therefore the creation of a control structure, which is usually called political and democratic in the world, is an important task of the Ministry for the Defense of the Region. You have probably witnessed the

rather intense "war" which I waged against making the defense system a political issue. Now I can say that the position which we occupied, that is the creation of a security system only against an external threat, proved to be correct. Especially at present, in view of the election results, changes in domestic life are possible in which military forces must not intervene.

[Kuznetsov] Your agency is not lacking for attention. Recently both the politicians and the mass media frequently raised the question about material support of the system for defense of the region. What is your opinion with regard to this matter?

[Butkevicius] The supply of our army stems from an understanding of the threats facing the state. Let us look at the geopolitical position of Lithuania. It is the geographical center of Europe. This means that the shortest routes from the East to the West and back passed through it. We are a transit country not only for Russia and Kaliningrad Oblast, but for the Scandinavian countries of Western Europe as well as a "window for Russia" (as Peter I stated) into the western world. Such a geopolitical position transformed our country into a territory of endless confrontation and conflicts. After all, at one time, the Tatar-Mongols, crossing Russia, stopped specifically here. While the Crusaders (and all of Europe with them) moved from the other end to the East, toward Russia, and they also stopped here. Nemunas was the frontier. At one time I read the memoirs of Napoleon's officers who described their stop at Nemunas. For them it was not the boundary of another state, but a boundary of culture and thought beyond which the Europe of those days ended. It is true, the internal boundary of Europe which still exists today passes directly along the Nemunas. Two forces exist along it: the western and eastern ones, and when one of them is the dominant one, our territory becomes highly militarized. It is possible to live in such a geopolitical position only under one of two conditions: either as a member of European security structures which will become guarantors of our security, or as a creator of such defensive structures which would guarantee us maintenance of domestic order while depriving opponents of the hope of establishing political control over us.

To this it is necessary to add that Lithuania has not been subjected to direct aggression for a hundred years but was victim to veiled forms of aggression: in 1919 Russia declared that we have a socialist revolution and dispatched red regiments, Poland—that a putsch by Zheligovskiy is taking place and advanced on Vilnius, while the Germans decided that an uprising has taken place in Klaipeda Kray. While in 1940 it was declared that a socialist revolution has again occurred in our country and we became part of the USSR. In other words, all threats from the outside were possible only when the internal situation became destabilized, and one or the other of our neighbors felt that the domestic situation permitted the exertion of pressure. This is true for us today as well if society is split into a nation and national minorities of "enemies" and "patriots." Therefore, proceeding from state security requirements, I and our agency have always expressed ourselves in favor of utilizing all possibilities for the unification of all the people living in Lithuania and liberalizing laws for national minorities. All this stems from an understanding of the fact

that this is needed for our common security. If we understand our geopolitical and domestic situation, we can then respond to the question of how much armament Lithuania needs. After all it would never be able to defend itself and we must create our own armed structures with the understanding that sooner or later we will become part of European security structures. What they will be like, what will the security architecture of Europe look like? It is unlikely that anyone could answer that question today. But something can already be said. The first principle which must be observed is the one decreasing the isolation of European states. Lithuania may become either a means for increasing the isolation of Russia, or the reverse. Here we see a special mission for the Baltic states, that of being "a window," but it will be closed and opened only by ourselves.

Returning to the question on the armament of the system for the defense of the region, I would like to note that all of its structures are geared to perform peacetime functions. It is the protection of borders, important state facilities, such as the Ignalina Atomic Electric Power Station, the oil refinery, bridges, and railways. It is also the volunteer protection of the region—the principal source for swift mobilization (ecological catastrophe and accidents), as well as civil defense. We did not create any military structures which could "hold the front," but we did create a structure that can operate in handling crises, after the principle of UN peacekeeping forces. We have sufficient armament necessary to perform the above-named functions.

[Kuznetsov] The call to military service is currently taking place. How is it progressing and what problems are being encountered by your agency?

[Butkevicius] The call-up is proceeding well. There is just one problem—too many of our young men are "rejected" by our medical commission because of their poor health. I wanted to note that both in the call-up process and during service we have no nationality problems. Lithuanian, Russian, Polish, and Belarusian men serve together. If necessary, it is possible to speak Russian—after all we have many officers who served in the former Soviet Army. After completing their service the young men are demobilized as much healthier individuals. You know that I myself am a physician and it is gratifying to note that after just six months of service we have a physically fit individual, which, by the way, was noted by NATO representatives who visited us.

Our armed forces are one of the components of the state which serves to ensure its stability and the security of its residents. I hope that they will never start serving only one force in the government, but will secure peace and tranquility for all people of Lithuania.

Restoration of Lithuania's Army Celebrated

93UN0430D Vilnius TIESA in Lithuanian 21 Nov 92 p 1

[Article by Kazimiera Budrys: "An Army of the Lithuanian Republic? It's a Fact!"]

[Text] A press conference dedicated to the Day of the Lithuanian Army was held yesterday at the Ministry of National Defense. The Minister of National Defense, A. Butkevicius, his deputies—Commodore E. Nazelskis,

Colonel J. Gecas, other commanders of military formations, and the highest officials met with the journalists.

Lithuania's army has been restored, contacts have been established with NATO and the military organizations of various countries. The Ministry of National Defense now employs 6,508 people. One fifth of them belong to the purely defensive system of the Lithuanian Republic. Almost six thousand soldiers are guarding the land and sea borders and are active wherever citizens of foreign countries can cross into our Republic.

We have a rapid response brigade, named "The Iron Wolf," which has been made ready in accordance with the programs of the military formations of the European states. The soldiers who serve in it can cooperate with the corresponding services of the neighboring countries as equal partners. 35 percent of the called up soldiers who serve in this unit want to remain in it after the compulsory service (such remaining soldiers constitute 27 percent of the entire army). This is a firm foundation for a professional army, which, according to the estimates of the Ministry of Defense leaders, would be more effective and cheaper than an army of draftees.

We have not succeeded in finding out how much the maintenance of one soldier costs for the tax-payers. Prices are changing almost every day. We know that the present annual outlay is 47,000 coupons to feed a soldier and 25,000 coupons to outfit him.

A. Butkevicius emphasized that to maintain the level of readiness the army has already achieved it would require an annual allocation of 8.5 percent of the state budget. But they hope for at least 5-5.5 percent. This will be determined by Lithuania's new leadership.

At 11 AM on November 22, our soldiers will attend a Holy Mass in the Cathedral. A festive military drill in the Cathedral Square is planned for 12-1 PM. At 1:30 PM, the soldiers will honor those who fell for Lithuania's independence at the Antakalnis cemetery.

CAUCASIAN STATES

Creation of Armenia National Army Debated

93US0112A Yerevan RESPUBLIKA ARMENIYA
in Russian 3 Oct 92 p 2

[Article, published under the heading "Politics—Defense", by Col (Ret) Vazgen Bagdasaryan: "We Need Soldiers, Not Sacrifices"]

[Text] The subject of the need to create our own National Army is on the lips of all Armenians, including reserve and retired commissioned officers and general officers, who are anxious about the fate of Armenia and Artsakh. They grasped before anyone else did and became convinced that today Fedayeen [Armenian freedom-fighter guerrillas] warfare, Fedayeen combat units and Fedayeen tactics cannot achieve adequate success in guaranteeing the security of the people, defense of the territorial integrity and the independence of the republic, that the tactics and the character of modern combat, demanding new assets and new tactics of military confrontation respectively, have changed with the emergence of new means of mass destruction. At the present time Fedayeen detachments are unable

to completely carry out those missions which are normally entrusted to regular active-duty troops and are unable to completely replace them. They can only exist in parallel with regular active-duty forces, carrying out their own special functions and missions, as did partisan detachments of the former Soviet Union during World War II. That is, they can carry out commando missions, hitting the enemy with the element of surprise, without engaging numerically-superior regular units. Counting on guerrilla-type warfare is a dangerous trend, which hinders and impedes rapid creation of our own national army. We are not talking about individual Fedayeen nor about separate Fedayeen detachments guarding the borders of Armenia. We are talking about the Fedayeen movement on the whole as a phenomenon, as armed units not subordinate to a unified command, and whose efforts are not integrated according to a common plan of operations, objectives, missions, place, and operational timetable.

Most people know that the word "FEDA" is of Persian origin and means VICTIM, while Fedayeen means a person sacrificing himself. Do we need such sacrifice of life? What we need are soldiers who are well trained in military affairs, physically hardened, brave and decisive, imbued with the spirit of freedom, not voluntary sacrifice of life. We must live and win, not simply sacrifice and die.

There are no differences of opinion when discussing the need for creating a national army. Differences arise, however, when addressing the quality and quantity of the armed forces, their possible structure, branches and arms, strategy and tactics. This is a very complex group of issues which require a special qualified scientific approach and analysis. The author of this article drafted suggestions concerning these questions and submitted them to various official government agencies. It is impossible to cover all these questions in a brief newspaper article. Nevertheless I find it necessary to stress that when creating our own army, we must in the first place determine quantity and kinds of armed forces based on our own capabilities, on the condition of the military-economic potential of the republic, on an assessment of the existing operational situation, rather than on our desire to have a certain number of battalions, regiments, brigades, or divisions.

The history of the art of warfare indicates that the presence of a strong army has not always guaranteed the security of the people or the sovereignty of the state. On the eve of World War II Fascist Germany and Japan were the most powerful militarist states, armed to the teeth. They both, however, suffered crushing defeats. The Soviet Union in turn, prior to that same war, despite its multimillion-man army, was unable to guarantee the security of its own people as well as the inviolability of its borders. Iraq, which had a million-man army which was well-equipped with modern weapons and military technology, was not able to withstand the attack of unified allied forces headed by the United States. We can conclude from this that no matter what the size of its armed forces, no state can guarantee its integrity and independence if that state does not seek and does not find other paths and ways to ensure its sovereignty. We can see an obvious contradiction here: on the one hand it is impossible to guarantee one's sovereignty without the presence of armed forces, while on the other hand even the existence of strong, modern armed

forces does not guarantee the sovereignty of the state. It seems to me that under these circumstances we must find a solution by means of other governmental activities, which might be as follows:

- establishment of good-neighbor relations with all countries, entering into treaties with them, as well as agreements of friendship, mutual assistance in the domain of the economy, culture, etc;
- elimination of causes of conflict;
- participation in political and economic organizations which help strengthen the independence of the state;
- choosing a reliable ally, etc.

Nevertheless, despite the existing contradictions, the presence of one's own army is an urgent need, necessitated by the war which has been imposed on us and by the conditions which have developed in the region. But we need more than just armed military units; we need a modern army which is well-equipped with the newest weaponry and military technology, which has modern officer and general officer cadres, who implement their own strategy and tactics. We need small, well-trained mobile units and formations and an efficient command and control system.

A second contradiction appears: on the one hand the need to have modern armed forces, and on the other hand the impossibility of having them, because of the limited nature of our military-economic potential as well as other influencing factors. In addition to all else, we must look for a way out of this situation also in the mobilization of those unutilized resources which are at the disposal of our nation, including the financial and other means of Armenian business people, both within this country and in the Diaspora. It occurs to us that there are immense untapped resources here. By accurately calculating these resources and by approaching the problem correctly, we can greatly increase the financial means and military-economic potential of the republic. There is a war going on. Consequently everything must be subordinated to the interests of the war. Otherwise we may well lose the war and lose in the course of the brutal struggle all that we possess and are endeavoring to preserve. The war was forced upon us, and we are fighting. The war has its own laws and we must totally and completely obey them.

There are disagreements also in matters dealing with allies. Some believe that Armenia does not need any allies, that it is capable of and in a position to solve its problems on its own. Others believe that allies are needed and favor an Armenian-Persian-Syrian alliance. A third group also believes that it is absolutely necessary to have allies: they strongly advocate an alliance with Russia. Each of these groups should substantiate their position by means of appropriate arguments.

This is not a trivial question. Its correct or incorrect resolution will have a fateful influence on Armenia and Artsakh. Who must give the correct answer to this crucially important question? The government? The Ministry of Defense? Who? Would it not be useful to listen in advance to broad circles of competent specialists, who are abundant in our republic, and to learn their opinion concerning the resolution of important questions such as these? Unquestionably. It would be far better to solve our problems by ourselves, independently. But for that we need unlimited power and means, which unfortunately we do not possess. And the fact is that even great powers, possessing such resources, could not do without allies in the past and cannot today as well.

One of the reasons for the slow creation of a national army in my opinion lies in the fact that the considerable potential represented by retired and reserve officer cadres, who would like very much to be of use in the defense of their homeland, is not being aggressively utilized. As I see it, in order to enlist this category of officers into the process of creating and strengthening the armed forces of Armenia, it would make sense to create at the governmental level a certifying committee, the membership of which should include experienced, highly qualified officers and general officers, with the job of certifying officers and general officers in the reserve and in retirement who wish on a voluntary basis to extend assistance in the formation of the national army.

There is an urgent need for the Ministry of Defense to have its own special publications, which would publish timely materials written by specialists, concerning important military matters.

In our opinion, if even a small part of the ideas and suggestions presented above were implemented, this would be beneficial in helping strengthen the defense capability of the republic.

MILITARY CONFLICT, FOREIGN MILITARY AFFAIRS

Prospects for Success of Operation 'Restore Hope'

93UM0253B Moscow NEZAVISIMAYA GAZETA
in Russian 10 Dec 92 p 4

[Article by Vladimir Abarinov under the rubric "Africa":
"Feed the Somalis Without Getting Bugged Down in the
Conflict: Many People Doubt that the Americans Can Do
Both"]

[Text] The world views the military operation begun in Somalia under a mandate from the UN Security Council as an event of paramount importance. It is not even that the introduction of international forces into yet another country, is an extraordinary event in and of itself. From all indications, the operation in Somalia signals a new African course for Washington. It is American troops which comprise the backbone of the international force and it was the USA which persistently sought Security Council sanctions for the introduction of troops. Furthermore, according to some reports, a part of this contingent was already en route to Somalia even before the decision was adopted in the Security Council last week.

The situation in Somalia is truly tragic. The war among factions of the United Somali Congress (USC), which deposed President Siad Barre in January of last year, has led to the deaths of 300,000 civilians. One million of its 8 million people have fled the country and become refugees. The situation has been exacerbated by a disastrous drought. According to international humanitarian organizations, 4.5 million Somalis are on the brink of starvation, and 1.5 million of these are doomed. No kind of humanitarian aid will save them. All children below the age of five years will die in the nation before the end of the year. The extraordinary food aid sent in from abroad never reaches the intended recipients, however. Up to 80 percent of it is stolen by marauders. Somalia is a pathetic example of a country in which all of the official structures have collapsed, total anarchy reigns and weapons are easier to come by than food.

The world community has been trying to settle the Somali conflict for more than a single day now. A resolution passed by the UN Security Council on 23 January of this year imposed a total embargo on military shipments to Somalia. With UN mediation, a cease-fire agreement was achieved on 3 March, but it will take another month to establish a "safe corridor" for the emergency delivery of food aid. A special representative of the UN secretary general and a special UN operation (UNOSOM) were established in April. A 500-man UN security force was sent to Mogadishu. In August the Security Council decided to increase the number of UNOSOM military personnel to 3,500. The warring parties refused to let the UN troops enter the country, however.

This time the leaders of the hostile factions—self-proclaimed interim president Ali Mahdi Mohammed and Gen Mohammed Farrah Aidid, commander of the OSC's armed forces—have not merely agreed to the U.S. proposal; they have actually welcomed it. The operation involves 28,150 American servicemen alone. It is assumed

that the mission of the international forces can be accomplished within 2-4 months, after which the 3,500 troops it was planned to send there in August will remain, and an American aircraft-carrier will continue to patrol the immediate Somali coastal area.

The complete ineffectiveness of the air bridge which began functioning through the Kenyan port of Mombasa on 28 August prompted the decisive measures. In addition, it was learned unexpectedly that there was nothing to haul over this bridge. There was clearly not enough food for a large-scale operation. Representatives of international organizations referred in extremely unflattering terms to the American pilots, who refused to fly into danger zones, loaded their aircraft only half-full, did not turn off their engines and did not leave the cockpit while the aircraft were being unloaded. The air bridge was halted entirely on 18 September due to a "stray bullet."

The announcement of the beginning of the Somali operation was not received in the same way universally by the Americans themselves or in the world. Commentators are saying that American troops are taking part for the first time in such a large-scale operation which has nothing to do with the national interests of the USA. Some representatives of international humanitarian organizations feel that the military intervention will only complicate the delivery and distribution of the aid. The Charter of the International Red Cross Committee rules out the use of military force, for example. On the other hand, there exists the opinion that the operation, whose missions are limited to safeguarding the shipments, is no solution to Somalia's problem. A high American diplomat, who wishes to remain anonymous, has spoken out for even more vigorous participation by the USA—all the way to establishing an interim government and holding general elections.

This kind of stepped-up action is what some countries fear. Chinese representatives express themselves on the subject with great caution (even though China voted for the resolution in the UN Security Council). Sudan is definitely against it. Smith Hempstone, U.S. ambassador to Kenya, warned the State Department that the operation in Somali was an extremely risky undertaking. Finally, there is apprehension that the Somali war lords had a reason for rejoicing, that they were secretly counting on drawing the Americans into the war on their side.

Be that as it may, military intervention cannot put an end to the Somali disaster. Practically all of its able-bodied youth are now armed, and if the world community does not intend to feed the Somalis for many years to come it will have to consider a drastic political solution, even to the point of recolonialization.

SECURITY SERVICES

Former KGB Chief on Mideast Operations

93AE0172Z London AL-HAYAH in Arabic 21 Oct 92 p 10

[Interview With Former KGB Chief Leonid Shebarshin by Jalal al-Mashitah in Moscow; date not given]

[Text] Moscow—The clamor of Tverskaya Street, in the center of Moscow, subsides when one turns into an alley close to a corner where a building described by citizens as

"homes of the people's servants" is located. Many leaders live in this building. President Boris Yeltsin lived there until recently. There was no visible guard, except for Gloria, a female dog who barked loudly when the door was opened by Leonid Shebarshin (57), one of the biggest bearers of secrets in the world, former chief of the KGB, and the man who was in charge of spy networks spread throughout the world.

The former KGB chief's apartment may look luxurious to Muscovites, but it is modest by European standards: Simple furniture, shelves straining under the weight of the books they carry, and Oriental paintings and rugs amounting to memorabilia for the intelligence officer who headed networks in Iran, Afghanistan, Pakistan, and India before becoming KGB deputy chief in 1987 and then KGB chief in 1989.

His brown eyes glow softly, but he suppresses the glow quickly to conceal secrets that will remain buried because "I, as a Russian citizen and intelligence official, am aware of the frameworks within which I can speak."

AL-HAYAH asked him about Soviet intelligence objectives in the Middle East and about how different they were from the West's objectives. He responded: "The Middle East was the most important Cold War theater. We viewed it in a simplistic way. In our opinion, the Arab world consisted of two parts: One allied with the United States and, therefore, lined in the same column with Israel, and the other comprised of countries and movements, which we placed in the "socialist tendency" column. The objective of this theoretical projection was to reinforce geopolitical facts embodied in the confrontation between the East and West. It is on the basis of this viewpoint that we chose our friends or they chose us. But this did not stop us from establishing firm relations with Haile Selassie or the shah of Iran, for example. At times, we disregarded ideological differences. So we established good relations with the Ba'thists, and our relations with Syria were excellent even though we were aware that Syria had been developing secret relations with the Americans in the last 10 years. I believe that Lawrence Eagleburger (currently acting U.S. secretary of state) was responsible for those relations.

[AL-HAYAH] This is a general political aspect. What role did intelligence have specifically?

[Shebarshin] Everywhere, intelligence is the instrument for implementing state policy. In light of this fact, our task in the Arab world was embodied fundamentally in, first, gathering information on U.S. influence and Western influence generally and on the domestic conditions in each Arab country, especially in view of the numerous coups and "corrective" movements there. We divided officials into pro-West and pro-Soviet, conservative and socialist, and so forth.

The second objective was to observe confidential contacts between Israel and the Arab countries. We knew that the Israelis had contacts with the Syrians and the Moroccans. Moreover, our men observed Israeli-Iranian relations, which were not severed even after the revolution. They did, however, shift from the governmental level to the level of arms and oil deals.

The third objective was to strengthen Soviet influence and to destroy positions of the forces that we considered unfriendly.

[AL-HAYAH] Through coups?

[Shebarshin] No, through what we called in intelligence terms "effective movement," i.e. influencing government, political circles, and public opinion. Toward this end, we used our relations with politicians and the press.

[AL-HAYAH] Can you name some papers or at least say in what country?

[Shebarshin] The papers continue to exist to this day. Therefore, I will not name them. But practically, they exist all countries. We leaked reports whose disclosure served our interest, couching them as actual facts. At times, we obtained confidential information from U.S. or Israeli circles and published it in the press, attributing it to an Arab or a European politician. The objective was to harm the United States, Israel, or Arab leaders whose relations with the West "exceeded the limit," in our opinion. The Americans used and continue to use the same methods. I know Arab papers and press agencies that are used by the CIA.

[AL-HAYAH] You have spoken of politicians whose services you used. At what level were they?

[Shebarshin] Various levels. When we were certain of the information (which was often), we had unofficial channels to transmit it, even to heads of state. In this case, we made certain that the information was completely reliable.

[AL-HAYAH] How did you deliver the information?

[Shebarshin] Through our counterparts in the countries concerned. We left it up to the other side to use or not use the information. Such information was either presented at a government meeting or in an official address or transmitted to a partner in a neighboring country. Thus, we accomplished the objective, which was to influence people we wanted to influence. There is another method, called "delivery in the dark." We resorted to this method when we doubted the information we had at our disposal. For example, if I knew that you have relations with a certain foreign minister, I would ask you to....

[AL-HAYAH] God forbid.

[Shebarshin] Just as an example. I would ask you to transmit to him a report that you attribute to a Spanish or an Argentine source that you know.

History of Middle East Network

[AL-HAYAH] When was the Middle East network founded, and when did it launch its activity?

[Shebarshin] When the intelligence service was created 70 years ago. Even before establishing diplomatic relations, we would send agents from a third country or Soviet intelligence men carrying documents from other countries. If an agent alleged that he was Muhammad 'Ali from Tabriz and operated with an assumed Iranian identity, then the cover he used would be so tight that it could be exposed only if he was taken to Tabriz and identified by neighbors of the real Muhammad 'Ali.

[AL-HAYAH] Were your agents in the region hirelings or people who acted on ideological motives.

[Shebarshin] Agents were selected on the basis of how well-informed they were. The main target was the central intelligence network and the U.S., British, and French embassies. We were very interested in recruiting the cipher interpreter or typist of a U.S. embassy, and we instructed our Arab aides to open channels of communication with such people either with money or by exploiting people of Arab extraction or men married to Arab women, for example.

Information services have their market, and whoever wishes to sell, be he a politician or a journalist, can find a buyer among the Germans, the French, or even the Chinese. If we were chosen, then this often meant sympathy with the Soviet Union. Those operating on intellectual motives were more honest and worked better. The Palestinians, for example, saw the Soviet Union as a support, and we considered them to be friends. We cultivated sources among them, especially because they were familiar with the conditions in nearly all the Arab countries.

[AL-HAYAH] You mean contacts with official Palestinian circles?

[Shebarshin] No, this is another matter. Supporting the Palestinian movement was a fundamental part of our tasks. We supplied them with weapons and money on a decision by our political leadership, even though we made our own proposals in this regard.

[AL-HAYAH] Could you confirm if the documents published to expose the Communist Party secrets about intelligence contacts with the Palestinians are true? Are there other documents in this regard?

[Shebarshin] There are numerous other documents, in addition to what is connected with Wadi' Haddad's contacts with a representative of our agency. Palestinians visited us officially or secretly, and we acquired from them information beneficial to both sides. The meetings were recorded and referred to the leadership, especially if they contained an assessment of political figures or of relations with other countries or if they covered agreements on training or on weapon exports. Such agreements were also concluded by the military intelligence.

But the Palestinians dealt with a government, not with the intelligence agency or the Communist Party. The publication of these documents is a dishonorable act and a betrayal of old friends. Unlike Germany after World War II, we are not an occupied country whose documents should be made public. This is tantamount to treason against the Russian national interests.

[AL-HAYAH] Your contacts with the Palestinians were interpreted by the West as support for terrorism. Did you help organize specific [terrorist] acts?

[Shebarshin] Nobody can accuse us of terrorism. If we wanted to actually engage in it, we had enough capabilities to do so, not to mention the objective base we had for our action, whether in the West Bank or among Israeli Arabs. We are opposed to terrorism in principle. But we are also opposed to the use of double standards. The Israelis assassinated Salah Khalaf (Abu-Iyad) and Khalil al-Wazir

(Abu-Jihad) and shell Palestinian refugee camps, but we rarely hear any protest, whereas Palestinians are accused of terrorism if they resort to similar methods.

[AL-HAYAH] In addition to information, it has been mentioned that Palestinians helped you with the release of Soviet citizens who were kidnaped in Lebanon?

[Shebarshin] To begin, it is not true that we sent a special operations team that kidnaped anybody or got involved in clashes. We asked three parties, namely the Palestinian leadership (I recall specifically Yasir 'Arafat and, I believe, the PFLP and the DFLP), the Syrians, and Walid Junblatt, to intervene. We dispatched two or three individuals who had worked in the region and who had contacts with its officials. We convinced all parties that pro-Iranian circles were behind the kidnaping, which took place at a time when relations between Tehran and Moscow had deteriorated greatly, and that the operation was not at all in the interest of the Arabs.

[AL-HAYAH] Besides the Palestinians, you had distinctive relations with the intelligence agencies of a number of Arab countries. How were those relations established, and what were the axes of cooperation?

[Shebarshin] We had extensive relations with the Third World countries' intelligence agencies generally. Those relations included cooperation in confronting a common adversary. This is natural, especially with allied and friendly countries. Our cooperation with the Syrians, Iraqis, Yemenis, and others took three directions. The first was the exchange of information. We supplied our counterparts with information that concerned them directly about other countries in which they did not have the opportunity to operate that we had.

The second direction was to train cadres. We sent instructors specialized in various fields, especially in "operational tactics," which encompass capabilities of a passive nature (maintaining secrets) and active nature, such as using eavesdropping equipment, confidential photography, and chemicals that are not harmful to people but that can be used spying purposes.

The third direction was especially reinforced after perestroika. Our relations with the Third World countries had begun to decline, and the leadership's interest became confined to the West. Intelligence channels helped maintain those relations. An acknowledged tradition was for our ambassadors abroad to meet with me during their vacations. Many of them told me that the rug was being pulled from under their feet because the economic ties were weakening and political interest in Moscow was waning. Intelligence continued to be the only uninterrupted link. At times, our ambassadors were unable to meet a head of state or a prime minister. They resorted to us, and we, in turn, asked our counterparts in the country concerned for help. We got that help in return for similar services.

Submachine Gun, Instead of Thermos, in Briefcase

[AL-HAYAH] Did the "distinctive" relations continue to affect developments in the countries concerned?

[Shebarshin] Certainly. We observed domestic political conditions but we did not engage in any act against

friendly regimes and governments. I disagreed with other authorities on assessing the conditions in those countries. The Communist Party Central Committee believed that the situation in South Yemen, for example, had stabilized and that if 'Abd-al-Fattah Isma'il returned from Moscow, his return would not introduce fundamental elements, whereas we (intelligence agency) anticipated the January incidents and expected an eruption.

[AL-HAYAH] Didn't you try to stop him?

[Shebarshin] I will admit that our assessments had not made the right conclusion as to what would truly happen and that our analysts had not expected 'Ali Nasir Muhammad to open fire on his colleagues in the political bureau or that he would be carrying a submachine gun, not a thermos, in his briefcase.

[AL-HAYAH] Did you carry out joint operations in third countries in cooperation with "friendly" intelligence agencies?

[Shebarshin] This possibility existed theoretically and was discussed with certain parties, but it remained within this framework. Intelligence agencies generally are inclined to operate independently and not to acquaint others, even friends, with information at their disposal. But we did supply at times lists of U.S. personnel, pointing out who was a pure diplomat and who worked for the intelligence agency. We also pointed out who had Arab roots among their relatives and then left it up to the other side to act.

[AL-HAYAH] Through your contacts and acquaintance with intelligence work in the region, can you list the intelligence agencies according to the order of their importance and vigor?

[Shebarshin] The main criterion is how well intelligence agencies respond to the country's interests. The United States has international interests, and the Soviet Union also infiltrated into all holes in the past. The GDR [East German] intelligence agency (Stasi) was very advanced professionally. The British and French secret agencies, deep-rooted as they are, did not accomplish much. This is demonstrated by the information we got from Kim Philby and from the five-man British network that worked for us. I can assert that the KGB has been the strongest in the Middle East.

[AL-HAYAH] How about the local agencies?

[Shebarshin] Each works according to its tasks. The Iraqis are concerned with Iran, the Kurds, their Arab neighbors, and U.S. activity in the region. Through my contacts with them—I visited Baghdad in 1988—I became certain that they were operating effectively along the aforementioned axes. The Syrians are engaged in similar activities, depending on their concerns.

[AL-HAYAH] And how about the Mosad?

[Shebarshin] It has a good reputation in professional circles. It boasts at times that 8 million Jews in the world work for its interests. This is an exaggeration, of course, and it is uncommon. This has been confirmed by the book written by Ostrovsky, a former Soviet agent (even though I do not trust what traitors write).

[AL-HAYAH] Did you have ties with the Mosad?

[Shebarshin] Yes, as of 1985. But they were undeclared and purely professional.

[AL-HAYAH] There are now nearly 400,000 former Soviet citizens in Israel. Are there KGB agents among them?

[Shebarshin] It would be stupid on the part of any intelligence agency to waste such an opportunity. We must make use of these people as the Mosad uses its own people in our country.

[AL-HAYAH] Meaning that the absence of diplomatic relations was no obstacle to intelligence activity. Does this also apply to your activity in the Gulf, for example?

[Shebarshin] At last, we realized that focusing our efforts on the "socialism-inclined" countries was not right, especially in light of the evident influence of the Gulf countries in the region. We operated there even before we opened any embassies, and we tried to gain friends. But we did not seek to harm the governments concerned. Our primary objective was the Americans, especially in light of the existence of defense treaties between a number of the region's countries and the United States.

[AL-HAYAH] Iran overlooks the Gulf, also.

[Shebarshin] Our activity in Iran has a longer history because Iran is a neighboring country and because until 1979, it was a bastion of U.S. influence. When the revolution erupted, we began to observe its influences with interest, and we reached the conclusion that exporting it would not be a positive element for us even though the regime in power has been opposed to the United States. Our negative stance toward exporting the revolution has been founded on a profit and loss account based on [Iran's] antagonism toward the Americans and hostility toward the Soviet Union.

[AL-HAYAH] You were in charge of the Soviet intelligence networks in Iran. Did you observe the possibilities of war, or did you convey an opinion on possibilities of the eruption of war to Baghdad, which was tied to you by a friendship treaty?

[Shebarshin] We provided information of a political nature. But it was certain that war was coming. President Saddam Husayn decided to rely on information gained from Oveysi and (Polisian), two absconding Iranian generals. This is the biggest mistake made by a government. Opposition and emigres cannot offer an objective assessment because of the presence of the element of hatred and malice. Moreover, the Americans worked to push Iraq toward war. I can say now with utter confidence that an agreement was reached between the Iranians and representatives of the U.S. Republican Party to delay the release of U.S. hostages until after the elections. In light of all of this, Saddam got the impression that the Iranian regime was collapsing and that a single push was enough to topple it. What happened is that this regime mobilized its domestic forces to confront Iraq. Our analyses show that the Iraqis had not drawn up a plan for decisive action in the first place and that they often believed that the operation would be symbolic.

[AL-HAYAH] Did you observe the beginnings of the second Gulf war in a similar way? (Shebarshin went to a

shelf, took out a huge red volume on which the two words "Gulf War" were embossed in gold letters, showed folded pages of the volume containing figures on the troop strength and weapon numbers), and then proceeded to say:

[Shebarshin] By July, we had information on Iraqi troops amassed at the borders. It is not that we received reliable information from (high-level) Iraqi sources. But on the basis of an analysis founded on information from Kuwait and Iraq, we concluded at the end of July that matters were heading toward an invasion.

[AL-HAYAH] Did you convey this conclusion to the leadership?

[Shebarshin] Yes, but I believe that the leadership "did not accept it." Our policy in that period had begun to assume a symbolic character because of the leadership's preoccupation with domestic problems. There was no real interest in developments in the world. We relied on the Americans fundamentally.

[AL-HAYAH] The day after Iraqi forces crossed the border, Eduard Shevardnadze, the Soviet foreign minister at the time, said that Baghdad had "acted treacherously." Had there been commitments not to cross the border?

[Shebarshin] I believe that what he meant was that Iraq, with whom we had a friendship treaty, had not informed us, even half an hour ahead of time, which the Americans did before they invaded Panama and before the start of operations against Iraq.

[AL-HAYAH] Had the Iraqis consulted you, what answer would you have given?

[Shebarshin] To speculate would be some sort of fortune-telling. I believe that the Iraqis committed a series of mistakes. After the meeting between (U.S. Ambassador) Glaspie and Saddam, they did not expect the U.S. reaction to be so severe. The second mistake was that they did not appreciate developments in the Soviet Union correctly. One did not need intelligence agencies to observe the speed and depth of those developments. Even the Westerners themselves did not realize the dimensions of the collapse in the great state. The statements by (CIA Chief) Robert Gates about his circles having predicted what was going to happen in our country are pure prattle. Intelligence agencies ordinarily quote from a report here and a report there to allege that they know everything, knowing for sure that nobody is going to read their papers [reports] in their entirety.

[AL-HAYAH] What role did intelligence agencies play prior to and during the war?

[Shebarshin] There was a large-scale deception operation within which we received information from various parties, including Palestinian parties (and I do not mean official circles) about collusion between Baghdad and Washington. The objective was to stop Moscow from taking a position different from the one it took (even though there was no justification for such apprehensions).

[AL-HAYAH] Did you provide any intelligence information to either side prior to or during the operations?

[Shebarshin] We were asked numerous questions, including the question whether Iranian silkworm missile

were combat-ready or not. We could not answer because we cannot have an agent in every missile battery. The Americans knew nothing about chemical weapons. All the information we offered was objective and its purpose was to avert what actually happened. But information, regardless of how accurate, cannot change the course of events, especially when strategic objectives are involved. There was an enormous mass of correct and misleading information. This file (pointing at the volume) may tell future researchers the manner in which each side tried to influence the other.

[AL-HAYAH] And what about the Iraqi side? Did you supply it with information on preparations for the start of operations?

[Shebarshin] The Americans did not conceal their intentions. They sought to apply psychological pressure to Iraq and to prepare the world. We informed our Iraqi counterparts (in the intelligence), and they were inclined to believe what we told them. I do not know if the Iraqi president thought that we were engaged in an attempt at deception. We warned them honestly.

[AL-HAYAH] Did your expectations comply with what happened in the field?

[Shebarshin] I, as an intelligence official, did not believe that the Americans would stop at the Iraqi border but that they would carry on. All signs indicated that they would carry on until Saddam Husayn was removed. I do not know why they did not. I will continue to observe this aspect.

[AL-HAYAH] Do you mean removed by a military operation or by assassination? Have the Americans asked you for information in this regard?

[Shebarshin] I do not think the Americans would have hesitated to do this (assassination). But it was impossible for us to participate. On the other hand, we did not contribute any support for Iraq.

[AL-HAYAH] Does the end of the Soviet Union and Russia's inclination toward relations of friendship or cooperation with the West mean that your intelligence tendencies in the region will turn in the other direction?

[Shebarshin] In the past, we "planted" socialism. Are we asked now to use the same methods to "plant" democracy? There are relations between countries, and intelligence is a part of these relations. We have had relations with the CIA for a long time, but they were not made public until recently. We exchanged information when one of our men or their men disappeared, for example. If we received the answer that he "exists," then we would realize that he had not been killed or drowned (even though this would have been better at times).

[AL-HAYAH] Your Middle East network was dealt a blow after Kim Philby's escape. What is happening with this network now?

[Shebarshin] In Philby's time, it was impossible to destroy our network. A foreigner cooperating with us knew just one person [in the network], and none of our men had contact with more than two or three persons. Intelligence is like a "Titanic" ship consisting of compartments. If water enter

one of them, the entire ship will not sink. What happened to the Titanic is that it received a blow right across its middle.

[AL-HAYAH] But Philby disclosed the names of a number of Lebanese citizens who cooperated with him at IZVESTYA.

[Shebarshin] No information connected with intelligence was published in the Soviet press without the knowledge of the intelligence agencies. It is certain that we had our calculations, such as undermining certain people or inflicting damage on the Americans. Let me give you an example. Two years ago, we published information on the (Liao Tiao) operation, which was organized by the Western intelligence in the early 1960's and which had long-term strategic objectives aimed at driving a wedge between the Soviet Union and China. The Soviet intelligence agencies' objective behind publishing this report was to confirm that the visible aspect of the Cold War had ended but that the secret side of the war was still going on.

[AL-HAYAH] A large number of Arab students and members of the military received instruction and training in your country. Did you exploit their presence in the Soviet Union?

[Shebarshin] Not much. We were eager not to have obvious relations with an individual we trusted. Meetings were held at times at a restaurant on the Black Sea coast. At times, even hideouts were used to deliver money or to collect materials. But there is a difference between somebody who needs financial aid or something else and who, in return, works for us in our country and this same person working for us in his country, where counterespionage agencies are active.

[AL-HAYAH] Did you resort to blackmail to force agents to continue to cooperate with you?

[Shebarshin] I was once personally asked to do this. But as soon as I looked the man in the eye, I realized that he was of absolutely no use to us. When I became agency chief, we did not use these methods. As for Arabs, there was no need for these methods.

[AL-HAYAH] Because they are easy to deal with?

[Shebarshin] No, because we had friendly relations that facilitated cooperation.

[AL-HAYAH] There are organizations, such as the Afro-Asian Solidarity Organization, the World Peace Council, and youth and student federations, that have been accused of being created by your intelligence agencies.

[Shebarshin] These organizations were created in the 1950's on a political decision as an instrument to expand the influence of our foreign policy. The KGB contributed in this regard, and some of our agents operated under the cover of these organizations. But they were not created by us. Practically, they were of little benefit because those working in them were known for their friendship with Moscow and because the scope of their information was narrow.

[AL-HAYAH] How about current Russian intelligence activity in the Middle East, and are you connected with it?

[Shebarshin] I am retired from government employment, and I have established an economic security firm that helps organize protection for individuals and documents in business circles. I have met with Yevgeniy Primakov, the current intelligence chief, twice, and I do not wish to show excessive interest, so I will not complicate matters for him or create problems for my colleagues. In any case, I thank him because he has preserved the intelligence service. He has good advisers and experts.

[AL-HAYAH] And previous work experience?

[Shebarshin] I do not think so. He who wishes to work in the fields doesn't necessarily have to know farming. It is better, of course, if he knows all details of the profession. An expert on the profession, and one who is knowledgeable in it becomes more lenient than necessary when he assumes its chairmanship.

[AL-HAYAH] Your appointment as KGB chief and your dismissal 24 hours after the August coup aroused questions. Can you disclose the details of what happened?

[Shebarshin] On 22 August, the Presidential Office asked me to go to the Kremlin. When I arrived there, I found a number of officials in the reception hall. Mikhail Gorbachev entered and shook hands with everybody. When he got to me, I introduced myself because I had not met him often before. He took me to his office directly and asked me about the details of what had happened. I told him that Vladimir Kryuchkov, the KGB head, gathered the agency leaders on 19 August and told them that the head of state was ill. Gorbachev exploded in anger, describing Kryuchkov as a scoundrel and saying that he had trusted him and Defense Minister Yazov more than all the others. He then asked me to take over the agency chairmanship.

I returned to the nearby KGB headquarters where a demonstration had begun to remove the statue of Felix Dzerzhinskiy, the founder of Soviet intelligence. I recalled my work in Tehran, where I saw statues "hanged" first and then people executed. I also recalled from my experience in Tehran that if a single drop of blood is shed when masses of people gather, then the bloodshed will continue. I issued strict instructions prohibiting the use of weapons and then proposed that the employees' weapons be taken away. But the official in charge of guarding the building said that this would lead to the total collapse of morale.

On the following morning, I met with the agency leaders to issue a statement denouncing the "rebellion." We did actually issue it, especially since the "rebellion" had failed. We were planning to discuss some changes in the KGB structure at that meeting, but the head of state summoned me. He was at a meeting with the presidents of the republics. I waited with others in the reception hall. I realized what was happening when I saw (Sosoyev), the chief of staff who had been appointed acting defense minister the day before. He walked to the window overlooking the Kremlin walls and said loudly, "I am the chief of staff no longer." He then turned on his heels, gave a military salute, and departed.

Mikhail Gorbachev told me that he had appointed Vadim Bakatin to replace me as KGB chief. I knew that this

individual, who was a Communist Party professional, was prepared to assume even the position of official in charge of nuclear physics.

[AL-HAYAH] But Baktin has assured AL-HAYAH that the objective behind his appointment was to disassemble an agency that was considered a state within a state.

[Shebarshin] Change was certainly needed. The agency, like other government structures, had become flabby, and it had begun to disintegrate, undertaking such superficial tasks as gathering information on grain crops. The problem is that intelligence agencies cannot operate if the public policy objectives are not defined. Democracy and moving toward an [open] market economy are slogans, not policy. Our country has experienced violent tremors recently, and they will have numerous ramifications.

[AL-HAYAH] Were the August developments the decisive point? What is your assessment of those developments from your position in the intelligence [community]?

[Shebarshin] That was an abortive attempt to halt the country's and society's collapse. By virtue of my job, I was

in contact with Kryuchkov, Yazov, Pugo, and Baklanov (the coup leaders). None of them had a personal objective. If they are tried, other interesting names and details will be exposed.

[AL-HAYAH] You mean Gorbachev?

[Shebarshin] I have mentioned no specific names. But when I met him upon his return from captivity in Foros, he looked completely healthy and relaxed and it did not seem as if he had just emerged from a crisis.

[AL-HAYAH] Why did the coup fail?

[Shebarshin] There were mistakes and poor assessments. Deploying armored cars in Moscow's streets was definitely a folly. What determines an outcome ordinarily is mistakes, not reason. Journalists and researchers talk of a "logic" afterward, and they try to find it even in the mistakes, which they depict as considered mistakes.

In life, there is no such logic, not in the case of Iraq's attack on Iran or its invasion of Kuwait, nor in the case of declaring a state of emergency in Moscow.

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