



JPRS Report

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

Soviet Union

Military Affairs

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22161

DTIC QUALITY INSPECTED 3

19980528 108

Soviet Union

Military Affairs

JPRS-UMA-90-012

CONTENTS

17 May 1990

MILITARY-POLITICAL ISSUES

General Staff Officers on Akhromeyev-Ogonek Exchange [Yu. Borisov, G. Samoylenko; LITERATURNAYA ROSSIYA No 5, 2 Feb 90]	1
Maj Gen Medvedev Responds to G. Arbatov [V. Medvedev; OGONEK No 9, Feb 90]	3
G. Arbatov Critique of Defense Secrecy [G. Arbatov; OGONEK No 17, Apr 90]	5
Deputy CINC, SRF in Round Table on Character, Direction of Military Reform [LITERATURNAYA GAZETA, 7 Mar 90]	13
Army Reforms Considered 'Necessary' to Keep Pace With Society [SOVETSKAYA KULTURA No 13, 31 Mar 90]	17
People's Deputy Col Petrushenko on Events in Baku [N.S. Petrushenko; BAKINSKIY RABOCHIY, 30 Jan 90]	22
Lt Gen Zinchenko Discusses Party Platform [O.V. Zinchenko; KRASNAYA ZVEZDA, 16 Feb 90]	26
'Danger' of Conversion, Reduction Mentioned [A. Manushkin; KRASNAYA ZVEZDA, 21 Feb 90]	27
Resolution of First Army-Wide Komsomol Soviet Plenum [KRASNAYA ZVEZDA, 21 Feb 90]	28
Stavropol Protests Reserve Call-Up for Azerbaijan [B. Prokhorov; RABOCHAYA TRIBUNA, 22 Feb 90]	30
Comments On Military Pollution Of Georgia's Environment [ZARYA VOSTOKA, 31 Mar 90]	31
Meeting Of GlavPUR Party Organization Secretaries Held [A. Bystrov; KRASNAYA ZVEZDA, 14 Apr 90]	32
Soviet Soldiers' Letters Express Views, Problems Of Profession	32
Latvian Attacked on Home Soil [I. Seymushkin; KRASNAYA ZVEZDA, 15 Apr 90]	32
Army Life Thought Worthwhile [N. Zakipnyy; KRASNAYA ZVEZDA, 15 Apr 90]	33
Rigorous Routine Omits Combat Training [M. Usov et al; KRASNAYA ZVEZDA, 15 Apr 90]	33
Local Mess Food Needs Improving [A. Mukhametshin; KRASNAYA ZVEZDA, 15 Apr 90]	34

MILITARY SCIENCE

Military Parity and Asymmetries [Yu. Lebedev, A. Podberezkin; KOMMUNIST VOORUZHENNYKH SIL No 22, Nov 89]	35
Reflections on Character of Armed Forces in 1990's [V. Durnev; ARGUMENTY I FAKTY No 8, 24 Feb 90-2 Mar 90]	39

WARSAW PACT

Briefing on Disposition of Troops Leaving Czechoslovakia [O. Falichev; KRASNAYA ZVEZDA, 3 Mar 90]	41
Moscow MD Prepare for Troops Returning from Czechoslovakia [A. Makunin; KRASNAYA ZVEZDA, 4 Mar 90]	41

ARMED FORCES

Review: Yazov Book on Military Organizational Development [V. Khrobostov, V. Molostov; KOMMUNIST VOORUZHENNYKH SIL No 22, Nov 1989]	43
Biographical Notes: Col Gen G.V. Kochkin [KOMMUNIST VOORUZHENNYKH SIL No 22, Nov 1989]	45
Biographical Notes: Col Gen A.M. Makashov [KOMMUNIST VOORUZHENNYKH SIL No 22, Nov 1989]	46
Interview with Kiev MD Commander Col Gen Gromov [B.V. Gromov; SOYUZ No 6, 5-11 Feb 90]	46
Comments on Family Life, Current Activities of Col Gen Gromov [V. Izgarsheh; PRAVDA, 15 Feb 90]	48
Interim Statute on Officers' Conference [KRASNAYA ZVEZDA, 13 Feb 90]	49

'Code of Honor of the Soviet Officer' [KRASNAYA ZVEZDA, 13 Feb 90]	55
Ministry Criticized on Costs of Dachas Outside Moscow [OGONEK No 13, Mar 90]	55
Legal Response to Desertion, Draft Evasion [A. Korotkov; SOYUZ No 12, 19 Mar 90]	59
Current Draft, 1992 Navy Experiment with Two-Year Term [V. Filin; KOMSOMOLSKAYA PRAVDA, 3 Apr 90]	60
Opposition to Military Assistance With Harvest [IZVESTIYA, 4 Apr 90]	61
Statement of Lithuanian SS Presidium on USSR Draft [V. Landsbergis; EKHO LITVY, 3 Apr 90]	62
Termination of Draft in Lithuania [EKHO LITVY, 5 Apr 90]	62
Military Commissariats Under Draft Suspension in Lithuania [M. Filipenkov; EKHO LITVY, 20 Apr 90]	62

GROUND FORCES

Crossing Water Obstacles in MT-LBV [M. Bobrov; TEKHNIKA I VOORUZHENIYE No 12, Dec 89]	64
MTP-A4.1 Operational Features [A. Dokunin; TEKHNIKA I VOORUZHENIYE No 12, Dec 89]	66
T-64A Tank [V. Knyazkov; VOYENNYE ZNANIYA No 12, Dec 89]	67
Readers' Questions on Sudayev Machine Pistol, BMP-2 [VOYENNYE ZNANIYA No 12, Dec 89]	69
Preparing BTR-80 for Storage [A. Mosunov; TEKHNIKA I VOORUZHENIYE No 1, Jan 90]	70
BMP-2 Camouflage Equipment [B. Shatilov; Moscow TEKHNIKA I VOORUZHENIYA No 2, Feb 90]	72
Comments on Durability of Soviet Tanks [G. Kochetov; KRASNAYA ZVEZDA, 20 Feb 90]	75
Automatic Tank Gun Loading Devices [L. Dzyundzyak and A. Tkach; TEKHNIKA I VOORUZHENIYE No 3, 90]	77
Towing Combat Equipment [N. Bozhok and V. Churilov; TEKHNIKA I VOORUZHENIYE No 3, 90] ..	81
Shortage of Communications Equipment Among Tactical Units [V. Matyash; KRASNAYA ZVEZDA, 4 May 90]	83

AIR FORCE, AIR DEFENSE FORCES

VESTNIK PROTIVOVOZDUSHNOY OBORONY: 1989 Index [VESTNIK PROTIVOVOZDUSHNOY OBORONY No 12, Dec 89]	86
--	----

NAVAL FORCES

Seminar in Moscow on Naval Arms Limitation [V. Badurkin; TRUD, 13 Feb 90]	94
Rear Adm Kashauskas on Political Atmosphere Surrounding Baltic Fleet P.V. Kashauskas; SOVETSKAYA KULTURA, 24 Mar 90]	95
Answers to Readers' Questions on 'Aircraft-Carrying Cruiser' [VOYENNYE ZNANIYA No 4, Apr 90]	96
Cherkashin on Causes of Loss of Komsomolets [N. Cherkashin; SOVETSKAYA ROSSIYA, 26 Apr 90]	98

REAR SERVICES, DEFENSE INDUSTRIES

Conversion Blamed for Worker Morale Problems [M. Ivanova, A. Matveyev; EKONOMIKA I ZHIZN No 16, Apr 90]	103
--	-----

FOREIGN MILITARY AFFAIRS

Development of U.S. Space Laser Weaponry [I. Ivanov, I. Chekanov; TEKHNIKA I VOORUZHENIYE No 1, Jan 1990]	105
--	-----

General Staff Officers on Akhromeyev-Ogonek Exchange

90UM0317A Moscow LITERATURNAYA ROSSIYA
in Russian No 5, 2 Feb 90 p 4

[Article by Col Yu. Borisov and Col G. Samoylenko, General Staff officers, under the rubric "To the Editors of LITERATURNAYA ROSSIYA": "Military Arsenal: Prospects and Reality"]

[Text] A point of view which OGONEK did not want to publicize

We are General Staff officers and would like to present our viewpoint on the issues discussed in Marshal of the Soviet Union S.F. Akhromeyev's letter published in the magazine OGONEK (No. 50, 1989) and the editorial commentary on it. In our opinion the OGONEK editors are misleading their readers. Because of this we wrote a letter to OGONEK in December 1989 expressing our thoughts on the issues raised in S.F. Akhromeyev's letter and the editorial commentary on it.

Unfortunately, we were told that the magazine did not intend to publish our point of view. However, responses to S.F. Akhromeyev's letter appearing in subsequent issues of OGONEK have indicated that the magazine is taking a biased approach to their selection, publishing only those which support the editors' position. Instead of the discussion of military issues promised by OGONEK, we thus have the deliberate creation among the readers of an incorrect concept of the essence and the nature of the military threat, which still exists and with which every sober-minded politician and citizen must reckon.

We know that your publication strives for an objective depiction of the situation in many areas of our life and are therefore writing you a letter in the hope that you will find it possible to publish it.

We certainly do not want to build up an atmosphere of fear and distrust between the USSR and the USA, but we feel that in the building of qualitatively new relations based on trust and equal security of the two countries, one should proceed from current realities and not on the basis of what is possible in the future and, naturally, the desired level of bilateral relations which certain of our journalists and publications believe has already been achieved and, based on this, are practically calling for unilateral disarmament.

When OGONEK published S.F. Akhromeyev's letter, it stated that it was difficult to discuss the facts presented in the marshal's letter, given the amount of information the magazine possessed. It has nonetheless taken it upon itself to discuss them—with over-confidence, it seems to us, albeit with obeisances.

We consider it our duty to add certain important facts and figures to OGONEK's information on military issues.

Here is the first point. OGONEK asks the question: "...What countries are hatching a plan for conquering the Soviet Union? Who is eager to invade a country with an infrastructure in great disorder?...."

The question would appear to be rhetorical, but in fact it indicates, even suggests to the reader the most definite answer: None.

What can be said about this? Not a single competent politician or military man either in the United States or in any other NATO country would ask this kind of question when planning for maintaining the security of his country or the North Atlantic alliance as whole. One might encounter such a question only in Western movies, television series and creative literature of a certain bent.

The countries of the North Atlantic alliance maintaining the so-called "NATO triad," which includes strategic offensive forces of the USA, nuclear forces of the theater of war and conventional armed forces.

According to the American press, the U.S. strategic offensive forces are made up of 1,000 ICBM launchers, 30 nuclear-powered missile submarines with 656 ballistic missiles and more than 630 strategic bombers. This is around 2,300 platforms capable of taking up 16,000 nuclear warheads with a single launch/flight. They are targeted primarily at facilities within the Soviet Union and are capable of reaching these targets within a matter of tens of minutes. The U.S. leadership annually works on the development of methods of inflicting massive nuclear strikes against our territory. These activities include the Global Shield exercises, during which dozens of strategic bombers carrying long-range, nuclear cruise missiles actually set out on routes leading to the borders of the USSR.

Great Britain and France also possess strategic nuclear forces (although considerably smaller than the USA's), including 10 nuclear-powered missile submarines.

The NATO theater-of-war nuclear forces (not including more than 250 medium-range Pershing 2 and land-based cruise missiles to be eliminated under the INF Treaty) include more than 1,100 nuclear-capable tactical aircraft deployed in direct proximity to the borders of the USSR and carrier-borne aircraft, sea-based Tomahawk cruise missiles, operational-tactical Lance and Pluto missiles, ground force artillery and tactical nuclear weapons of the naval forces. The United States alone has more than 8,600 operational-tactical and tactical weapon delivery vehicles and around 20,000 nuclear warheads for them. Great Britain and France have more than 1,600 "battle-field" nuclear warheads.

The use of these nuclear weapons is also practiced annually in various large-scale exercises and maneuvers conducted by the NATO Joint Armed Forces.

It would be appropriate to point out that neither the USA nor the NATO bloc as a whole rejects being the first to employ nuclear weapons, unlike the USSR, which did this long ago.

The third component of the "NATO triad" are the conventional armed forces of the North Atlantic alliance. In numerical strength they constitute the bulk of the total strength of the NATO armed forces, which numbers 6,523,000. They include 244 combined-arms formations (divisions, brigades); 14,108 combat aircraft of the air and naval forces, 8,570 of which are assault aircraft; almost 14,000 combat helicopters; 38,400 tanks; 249 submarines (not including 46 nuclear-powered submarines); 673 large surface ships (with a displacement of 1,200 tons or more), including 396 ships with various-purpose cruise missiles.

All of this military might is even in peacetime formed into large strategic formations with their own staffs and other command and control elements in a constant state of readiness to direct the troops (forces) in military operations.

Large-scale exercises and maneuvers are regularly conducted by the armed forces of the NATO countries in direct proximity to the borders of the Soviet Union and other socialist commonwealth countries. Up to a half-million troops and many hundreds of combat ships and aircraft take part in these exercises during individual periods. The exercises are used for working out actual plans for conducting military operations—varying in scale, spatial scope and weapons employed.

These are the realities. Naturally, whether they put into play this huge war machine depends upon political conditions, upon the situation in the world, on the one hand, and upon the degree to which the party against which this military arsenal might be used maintains its defense capability.

The second point is that OGONEK casts doubt upon information cited in the open letter on the numerical strength of the U.S. armed forces: 3.3 million men.

In 1989 the armed forces of the USA had a numerical strength of 3,289,000. This includes 2,130,000 men in the regular forces (ground, air and naval) and 1,159,000 men in the so-called organized reserve.

The organized reserve of the U.S. armed forces is made up mainly of military formations established in peacetime. It includes the Army National Guard (457,000 men, 10 divisions, 20 separate brigades, two separate regiments), the Air National Guard (116,000 men, 18 air wings) and reserves of the branches of service (586,000 men, three combined-arms brigades, a Marine division, three air armies, combat and logistical support units).

The military equipment level of the organized reserve formations is at 60-80% of the peacetime table of organization. Combined with the training level of the personnel, this makes it possible to put the ground force

reserve components into a state of readiness to conduct military operations in 5-10 days; air force, 3 days; naval forces, 1-3 days.

These are the true figures on the numerical strength of the U.S. armed forces.

The third point: the magazine doubted that the United States had 15 attack aircraft-carrier task forces.

An attack aircraft-carrier task force is an operational formation of naval forces consisting of 10-12 combat ships, including one aircraft-carrier.

At the present time the effective strength of the U.S. Navy has 16 aircraft-carriers, six of them nuclear-powered. In addition, the United States has another four mothballed aircraft-carriers.

The naval forces of Great Britain, France, Spain and Italy have a total of seven aircraft-carriers in their fleets, and one French nuclear-powered aircraft-carrier is presently under construction.

With respect to the magazine's reference to a report in the newspaper WASHINGTON POST that the USA will have only 12 aircraft-carrier formations by the mid-90s, even if such a reduction were to occur, the aircraft-carriers would be mothballed, with real plans for their rapid return to action (which is what happened with four American destroyers built during World War II, which were taken out of mothball and converted to carry the Tomahawk cruise missiles and are now part of the effective strength of the U.S. Navy). What is important, however, is the fact, as R. Cheney himself stated in an interview in the LOS ANGELES TIMES (27 Nov 89), "the United States possesses and intends to continue possessing superior naval power."

The fourth point is that when OGONEK cited statements from the open letter which described the level of equipment and combat readiness of the NATO armed forces and pointed out that "these armed forces are not being reduced," it asked: "But what about the recent statement by U.S. Defense Secretary R. Cheney, who ordered that a plan be drawn up for reducing military outlays?..."

That deserves special consideration.

In the first place, OGONEK is talking about the future, while the marshal's letter states that the NATO armed forces are not being reduced. They are in fact not being reduced at the present time.

In the second place, in November 1989 U.S. Defense Secretary R. Cheney ordered the preparation not of a "plan for reducing military outlays," as the magazine asserts, but only a proposal from the branches of the U.S. armed forces for a possible cut in previously designated allocations for the 5 years beginning with 1991.

Note that it did not begin with 1990, as the Soviet Union did. The United States approved an official military

budget of 305.5 billion dollars for next year, which is 6.7 billion more than the 1989 budget.

In the third place, what specific cuts might there be in the U.S. military budget if these decisions are accepted by the U.S. administration? According to certain American publications, R. Cheney allegedly had in mind cutting previously specified allocations for the forthcoming 5 years (amounting to 1 trillion and 615 billion dollars) by a total of 150-180 billion. In an interview with DIE WELT (5 Nov 89) the Pentagon chief did state: "We have been instructed to plan military outlays to the mid-90s. Their reduction could start in 1991. Reducing them by 180 billion dollars, as the press is stating, is unrealistic and greatly inflated."

The WALL STREET JOURNAL (30 Nov 89) clarifies the matter: "The reduction being discussed so extensively is not a cut in the Defense Department's existing budget but a curtailment of plans for building up the military capability."

Addressing the editors of the newspaper WASHINGTON POST, U.S. Vice President D. Quayle stated: "The USSR remains enemy No. 1 for the United States. The administration is considering proposals from the branches of the armed forces for reducing weapons and personnel and cutting military programs for purposes of adjusting the military budgets for fiscal years 1991-1995.... The White House intends to accept any decisions on future programs of military development, military budgets and the numerical strength of the armed forces only after signing an agreement on a reduction of conventional armed forces and weapons in Europe."

And so, the American leadership makes the matter of possible future cuts in the scope of U.S. military preparations contingent upon the reaching of an agreement between the USSR and the USA, NATO and the Warsaw Pact. It is the same with the planned future reduction of the FRG's Bundeswehr mentioned in the magazine's commentary. In this case the situation is that the FRG might, following the conclusion of an agreement, reduce the numerical strength of its armed forces from 495,000 to 420,000 by 1995. The number of divisions will not be reduced, however—there will still be 12—and the number of brigades will even increase from 36 to 42. The number of tanks in the motorized infantry divisions will be increased by 40%.

This is the real situation with respect to the contemporary status of the armed forces and level of military outlays by the USA and NATO and possible future changes in them.

Unfortunately, the world is still a long way from eliminating its military arsenals. And as long as one side preserves its military might, the other is obliged to have an adequate defense capability.

Maj Gen Medvedev Responds to G. Arbatov

90UM0583A Moscow OGONEK in Russian No 9,
Feb 90 pp 30-31

[Article by Major-General V. Medvedev, doctor of technical sciences, professor, and USSR State Prize laureate: "The Country's Army, the People's Army". First two paragraphs are a bold-faced introduction.]

[Text] Recently, the press, radio, and television have been paying significant attention to the Army. And this is proper since a broad exchange of opinions contributes to the elimination of stagnant phenomena and the removal of those defects that were permitted in previous years, including in the sphere of military organizational development.

In my article, I would like to examine a number of approaches to security issues and defense organizational-development expressed by G. Arbatov at the 2nd USSR Congress of People's Deputies and their development on the pages of the Number five issue of the journal OGONEK, along with others. This is explained not only by the fact that respected Georgiy Arkadyevich touched upon key issues around which a discussion is occurring and that are repeatedly fanned by authors of various articles but also by the fact that, in essence, they affect the very bases and deep ties of the Army and the people.

I will begin with what I think is the main issue. Has Academician G. Arbatov legitimately posed the question in the title of the article "An Army for the Country or a Country for the Army?" and is his approach legitimate? It is, unambiguously, no. Really, if we proceed from this premise, then we would need to draw a line in this and also in the other case and the Armed Forces would be on one side and our people would be on the other. I would even like to talk not only about the uselessness, but also about the danger of this contrast.

Obviously there is no special need to list data about the Army's social composition here. We all know that both its cadre portion and the non-permanent [draftee] contingent, everyone without exception, are originally from among the working people and are linked to them both spiritually and by blood and so they also cannot have any special interests whatsoever that are different from the interests of our country.

If we proceed from the opposing [view], then it does not take a special effort to accuse the Army of subjectivism while assessing the degree of the military threat and for all the State's economic difficulties that are linked with the excessive appetites of the generals and the defense industry, the military's incorrect understanding of the principle of reasonable sufficiency, and other mortal sins.

I will attempt to state my personal understanding of the issues affected, while addressing them not just to Academician G. Arbatov.

We will begin with an assessment of the level of the military threat. For me, as a military man, it is entirely obvious that our country, including the Army, has sufficient capabilities to obtain complete data not only about the true status of the military potential of each capitalist state taken individually, but also about the future plans of their military alliances. Therefore, it is difficult to suspect the military of lacking objectivity or of being unqualified.

I cannot totally agree with the assertion that new political approaches and precepts have already resulted in the reduction of the military threat. It is perfectly obvious that only the threat of unleashing a world war, and primarily a nuclear war, has been postponed for the time being in view of both sides' awareness of the senselessness and catastrophic consequences of war for the survival of civilization on Earth. But the military threat itself, caused by the confrontation of powerful military forces equipped with the most modern weapons, is unfortunately still the main component of this concept and does not provide any special grounds for complacency.

Let us take the total correlation along primary weapons parameters. As a whole, as both sides have admitted, approximate parity exists. However, there are also imbalances and disproportions. In due course Academician G. Arbatov has totally logically explained this by the fact that each side followed its own path during the development of its strategic potential while considering the level of technical development, the capabilities of the economy, and other factors. All of this also generated well-known asymmetries. And it is difficult not to agree with this. Just what has changed right now?

You, Georgiy Arkadyevich, are focusing attention on the number of the 64,000 tanks we have (more than half of which, incidentally, were manufactured 20 or more years ago). I agree that here our superiority is almost twofold. However, you do not make note of NATO's superiority over the WTO [Warsaw Treaty Organization] in Europe, for example, in tactical aviation strike aircraft (by a factor of 1.5), and the overwhelming superiority in naval forces (in major surface ships—by a factor of five and, in cruise missiles ships—by almost a factor of 12).

Or let us take the sides' military budgets. The assertion that the U.S. is fundamentally reducing total defense appropriations is at the very least premature. In your article, you list official statistical data on the U.S. Defense Department's "budget authority" during 1985-1989. If we take expenditures directly by the U.S. Defense Department during this same period, the picture turns out to be different and it attests to something else. According to official American sources, Department of Defense expenditures in 1985 totaled 245.4 [billion dollars]; in 1986—265.6; in 1987—274.0; in 1988—281.9; and, in 1989—294.9 (as of January 1990) billion dollars. As they say, commentary is superfluous.

As for the Soviet Union, its military expenditures must insure the maintenance of the military strategic balance at a level of reasonable sufficiency. And this means that our country is faced with a more difficult task—to achieve the goal indicated with fewer resources.

The strategic balance is first of all determined by the approximate parity of the military potential of military forces and they, in turn, through required expenditures for the development, manufacture, and purchase of arms and military equipment. In 1990, the Americans planned to spend 115.7 billion dollars and we are spending 44.2 billion rubles for this purpose. The figures speak for themselves.

We would be very grateful to our opponents if they would suggest how we can provide for the country's reliable defense with a reduction of military expenditures by a factor of 1.5 to 2 as is planned by 1995.

We could also cite other arguments that currently restrain us from excessive optimism in assessing the degree of the military threat for the country and for our allies.

Our proposals on the reduction of the level of military confrontation and also practical steps for reduction of military expenditures are well known. Approved defense appropriations for the current year in particular in the amount of 70.9 billion rubles are 8.2 percent lower than the 1989 level. However, while taking unilateral measures for disarmament, we still advocate that this process should develop on a reciprocal basis.

The second group of problems that we must dwell on is associated with the rebuke expressed by Comrade G. Arbatov that in our country, "on the one hand, marshals and generals and, on the other hand, chief designers from the arms industry have gotten a totally free hand and have become uncontrolled."

During the course of this, the question is raised: "Just who and based on what laws should control the Armed Forces in our country, establish order in them, allocate military appropriations to them, and oversee all of this?"

Let us discuss them together. The mechanism for making decisions that is associated with organizational-development of the Armed Forces and, moreover, for their use both outside and within the state is well known. We can talk about the mechanism's imperfections, inflexibility, etc., but it exists and has always existed. In recent times, the narrow circle of political leaders who possessed this right not only did not consult with the people but also did not consult with the Supreme Soviet and did not always consider the opinion of the military. Right now, at this stage of perestroika, not one important large-scale issue can be implemented without a decision of the highest organs of the state. It is simply that the marshals and generals have never had the right to any sort of license in the past, do not have it right now and, moreover, will not have this right in the future.

The next question is—does lobbying exist in our country and are all the members of the USSR Supreme Soviet Committee on Defense and State Security its representatives, as Academician G. Arbatov confidently calls them? According to the *Kratkiy politicheskiy slovar* [Concise Political Dictionary] (fourth edition, supplemented, 1987), "Lobbying—the term that denotes the ramified system of offices and facilities of major monopolies or organized groups in U.S. legislative organs that exert pressure (right up to bribery) on legislators and state bureaucrats for the purpose of making decisions... in support of the organizations represented by them."

We can put an end to that. However, I would like to add that Georgiy Arkadyevich stated something quite the opposite in *NOVOYE VREMYA* No. 47 1987: "Sometimes they say: But there is also a military and an arms industry in the USSR. That is, that same military industrial complex. I do not agree with that opinion. Our Army and defense industry is not a force that has its own interests contrary to national interests."

It is also impossible to avoid the military's attitude toward reduction of the Army. According to Academician G. Arbatov's assertion while speaking at the Congress, he foresaw that his "proposal on more radical reduction of military appropriations would receive a rebuff from military command representatives."

In contrast to G. Arbatov, the speeches of Admiral Chernavin and General Ovchinnikov did not surprise me. First of all, because they know about the Army, and not through hearsay, and second they no less fervently take to heart the issues being discussed, and third, it would be more unusual if they were silent and did not enter into the discussion. That is their direct civic duty.

As we all know, defense organizational-development is implemented in accordance with the requirements of modern Soviet military doctrine and its main principle—reasonable and reliable sufficiency for defense. The Ministry of Defense and its main organ—the General Staff—directly participate in accomplishing this important mission. Furthermore, military experts are permanent members of the Soviet delegations at the talks in Vienna and Geneva. Thus, if the military was against radical reduction of the Armed Forces and arms, its role in the transformation of the Army would be not so visible or decisive.

I agree with Academician G. Arbatov that total military expenditures are directly linked with the general condition and development of the country's economy and with the social sphere of people's lives since we ourselves are experiencing all of the difficulties of the economic situation along with them. However, even here we need to place the emphasis properly.

First of all, the military not only does not have advantages in social benefits but it is also located on the lower level of consumption according to a number of indicators. The housing issue is very critical. On January 1 1990, the number of servicemen's families without

apartments totaled approximately 180,000. And this indicator is not only not being reduced, but it will also annually increase as a result of the reduction of the Armed Forces and the impending withdrawal of Soviet troops from the countries of Eastern Europe.

The rebuke directed at Comrades Yazov, Moiseyev, Chernavin, and other military leaders for this situation is simply incorrect. If the Armed Forces had ceased their primary duties and had occupied themselves with construction, the housing issue would have been resolved in the next few years. But really everyone must be engaged in their own business. The housing problem is state-wide and must first of all be resolved by government organs that have undersupplied the Ministry of Defense by about 100,000 apartments during four years of the current five-year plan.

Matters are no better with the size of servicemen's salaries. It has finally been recognized that an officer who controls modern, expensive military equipment receives no greater [salary] than a bus or streetcar driver, but with the incomparably higher degree of responsibility and intensity of his work.

Resolving this problem by taking funds from the Ministry of Defense's internal resources alone cannot be acknowledged as advisable since its items of expenditure are in any case determined by the minimum requirements to support defense and cannot be reduced without damage to the accomplishment of this important State task.

Second, the root is still in the effectiveness of the economy itself. The quality of military equipment produced also directly depends on this and reliable defense can be provided by using this equipment under conditions of reduction of the total strength of the Armed Forces.

We could also end on this note. The area affected also has many other no less important nuances, each of which can serve as a separate topic of discussion. The military will be grateful to everyone who participates in the discussion in the future and thinks that it is still early to completely close this issue. A businesslike and constructive dialogue and not confrontation of the Army and the people—that is the healthy basis that will help us all in the proper resolution of tasks facing Soviet society at this historical stage of our development.

COPYRIGHT: "OGONEK", 1990.

G. Arbatov Critique of Defense Secrecy

90UM0572A Moscow OGONEK in Russian No 17,
Apr 90 pp 8-11

[Article by Georgiy Arbatov: "How About Abandoning Deviousness?"]

[Text] At the start of the century the expression "Silence when you are speaking to me!" was attributed to the famous Prussian General Moltke, the Younger. I am

happy to affirm that our Soviet generals are, it would seem, ceasing to speak with us Soviet civilians in the same language.

Evidence of this is a response to my article carried in OGONEK No. 5 by Major-General V. Medvedev, professor, doctor of technical sciences, and winner of the USSR State Prize (OGONEK No. 9 for this year).

The general and prize winner no longer demands that I keep quiet. He refrains from rudeness, and if he wants even to say something unpleasant which casts a political shadow on me, he does so not with a swinging blow, but "circuitously," resorting to strained interpretations and unfair shuffling, which not everyone will notice. For example, attempting to reproach me for whitewashing American imperialism, he voices disagreement with "my" assertion that a "cardinal reduction" in military appropriations has been underway in the United States in recent years; whereas I had written that they have been declining in recent years, "although, in my view, as in the USSR also, too slowly." Or, criticizing my article but not adducing quotations (this is understandable, there are none), he utters angry philippics against those who "set the army and the people at odds" or, estimating the military danger, display "complacency" and "undue optimism." Even the generals' favorite indictment of civilian specialists for incompetence he expresses not head-on but "gently," counterposing to me other of my military opponents—General Ovchinnikov and Admiral Chernavin. They, V. Medvedev writes, "know about the army first-hand."

But I leave this to the author's conscience; I do not take offense, the more so in that there has, for all that, been a step forward. If only in the fact that General Medvedev is not demanding that civilian specialists be prohibited from expressing their opinion on military matters but, on the contrary, is calling for a continuation of the debate and "businesslike and constructive dialogue."

Responding to this appeal, I would like first of all to make clear the important matter concerning the dynamics of U.S. military appropriations and the kind of trend which has been revealed here in recent years—toward an increase or a reduction. Otherwise the reader will be asking with perplexity (judging by my mail) why General Ovchinnikov at the Second Congress of USSR People's Deputies and General Medvedev in his article in OGONEK adduce one set of figures, but Arbatov, another. And draw opposite conclusions here: the first as to the growth of, the second, as to a reduction (albeit too slow) in U.S. military appropriations.

I explained one of the reasons for this in my article in issue No. 5 of the journal. The generals deal with figures of military appropriations in current, but I, in actual, costs, taking account of inflation. It is not that the latter approach is the sole scientific one, it is also the sole acceptable, sole correct approach if we are talking about an investigation of the dynamics of appropriations for a period longer than a year.

I am, to be honest, amazed that General Medvedev simply ignores and fails to notice this argument of mine.

Another reason is the fact that I adduced official statistical information based on the U.S. Defense Department's "Budget Authorization" for the years 1985-1989. But he, the U.S. Defense Department's expenditure for the same period. The latter has indeed grown. And on this basis he concludes: "Enough said, as they say."

No, esteemed general, not enough. Primarily because the growth of expenditure also is given in current costs, distorting the picture and exaggerating its growth. More than sixfold for 1989. And, what is most important, because in a study of the dynamics of military appropriations the "Budget Authorization" represents more indicative and accurate criteria inasmuch as it incorporates also the right to conclude long-term contracts in the current year for the future. That is, these are military appropriations determined on the basis of today's estimate of the current situation and its prospects for development. But the "expenditure" item incorporates, on the contrary, the past and the payment for military programs and decisions adopted in preceding years and under different political conditions. It is clear that the trend revealed in the "authorization" will show through in the expenditure also, but somewhat later.

This is the case in this instance also—although the growth of expenditure continues, it slowed sharply in the 1985-1989 five-year period—from nine percent in 1985 to 0.7 percent in 1989 (that is, 13-fold). And in the current year, the plan is that expenditure will decline appreciably—by six percent. That is, the same trend is observed but with a certain delay—it has taken a number of years to pay for past obligations.

Incidentally the Pentagon's main argument in the struggle for an increase in military appropriations has always been, these years included, the growth of Soviet military appropriations. According to American figures (Soviet figures were not published prior to last year), they amounted in 1985-1989 to three percent annually. Only last year did the Americans record the first reduction therein for many years, to which they were thereupon forced to react, cutting their expenditure. In a word, here in practice we come across a mirror reflection. Justifying its requests, the U.S. Defense Department cites Soviet expenditure, overstating it as a rule (Defense Secretary Cheney tried to do so this year also, but was repudiated by CIA Director Webster). Our military, on the other hand, alludes, in turn, as we can see, to U.S. military spending.

But enough of this. We will be able without difficulty in the course of the unfolding dialogue to remove the factual and procedural errors and variant readings. But in order for the dialogue to be truly businesslike and constructive we need to have done with one further asymmetry. It is a question of the fact that the military in our country has since time immemorial preserved a monopoly of information, civilians, on the other hand,

having to manage as best they can, deriving information mainly from foreign sources, which, if anything crops up, are easily disavowable.

Therefore, when General V. Medvedev writes, although not without sarcasm: "We would be most grateful to our opponents were they to suggest to us how to ensure the country's reliable defenses given a one-and-a-half to two-fold reduction in military spending," I believe that the task he sets us is, indeed, difficult. And not only because we, as distinct from the Ministry of Defense, do not possess the intelligence—my long experience shows that the most important information, of fundamental political significance, concerning the armed forces, military policy, and intentions of the other side may be obtained perfectly well from open sources.

The main thing lies elsewhere—in the fact that until most recently we were receiving no data from the USSR Ministry of Defense on our own Armed Forces. And sometimes, even worse—we obtained deliberately distorted information which evoked derision worldwide (like the amount of R19-20 billion which figured for many years in the budget as our defense expenditure).

Everything was hidden—up to and including the names of our missiles and aircraft. Even at the negotiations with the Americans we would, with a straight face, call them by their NATO nicknames: Backfire, SS-20, and so forth. It became comical. The episode of one of our high-ranking military officers expressing to his American colleague the complaint as to why the military were exchanging figures and other data on military potentials in the presence of the two sides' civilians has gone down as almost a classic in literature on the history of Soviet-American nuclear arms limitation talks.

It sometimes seems to me that even now it is easier for our generals to tell their American colleagues something or other than for them to tell Soviet specialists or representatives of the public. (KRASNAYA ZVEZDA, for example, favored us by reporting for the first time the strength of our forces in the GDR, Poland, Czechoslovakia, and Hungary. But, it transpires, our high military authorities had reported this information to representatives of NATO countries at the seminar on military doctrines in Vienna a month before it was conveyed to the Soviet people.)

Whatever the reasons for our super-secrecy—primitivism of thinking stemming from Stalinist times, fright or self-interest and a desire to hide something important from their compatriots—it has had the most dire consequences. On account of this super-secrecy, we have appeared in the eyes of the world community as fearfully suspicious and sinister. And have made things easier for the American militarists in their dishonorable game, affording extensive scope for all speculation. Taking advantage of our silence, they have spoken for us and have been able to ascribe to us any quantities of arms and any military spending or intentions. And, in the racket of a deafening propaganda campaign, as was

the case repeatedly—in both the 1960s and the 1970s—to make increasingly new spurts ahead in military rivalry. For which we subsequently paid in tremendous expenditure on new military programs intended to ensure parity with the Americans.

But much worse even was the fact that a most important concern for the country and the people—defense, security, and military spending of fantastic proportions—was monopolized by a small group of generals and general designers of the military industry. These people themselves, of course, did not make decisions in any way large-scale, as V. Medvedev writes, on any issues. The decisions were adopted by a small group of not-very-bright and not-all-that-well-informed politicians (and often very much misinformed by those same generals and general designers), sometimes on their own initiative, but more often at the prompting of the military. In the atmosphere of secrecy no one could say simply anything at variance with their wishes.

Recently, in the years of perestroika, the situation has come to be rectified—some things are being declassified. But this process is moving slowly and indecisively.

What has it shown us as yet, as of this time?

First, that in many cases the most overblown figures, contrary to common sense, or so it seemed to me in any event, on the quantity of our weapons adduced by American militarists and anti-Soviets are, it has transpired alas, close to the truth.

And, second, that even following the decision of the political leadership on the elimination of "excesses" in the sphere of secrecy, our military comrades are being very reluctant to cease concealing the truth, it having to be squeezed out of them drop by drop, and this "truth" is continuously changing, what is more, one statement contradicting another, which is considerably undermining confidence in what they say. The more so in that the bulk of information remains secret, as before, including the part thereof which can be kept secret from the public merely from inertia or for the convenience of the military and military-industrial leadership, not for the sake of the country's security.

It is these two circumstances, incidentally, which also explain the fact that in recent years my views on certain questions have changed (General Medvedev, who, it transpires, has made a pretty good study of my earlier works, also reproaches me with this). And, specifically, I can no longer deny the existence here in the Soviet Union of a military-industrial complex which is beginning to live by its own interests, paying little heed to the country's interests. In the light of new facts which have become well known at this time, I have simply become convinced that I had earlier placed excessive trust in some of our departments.

In order not to speak without any evidence, I shall cite as an example the business concerning the Krasnoyarsk radar station. Initially silence was maintained. When

this was no longer possible, people embarked on affirming the falsehood that its sole purpose was monitoring satellites. We will complete it, it was said, and you will all see and convince yourselves that there has been no violation of the ABM Treaty. As a result not only was the public deluded, but the political leadership was forced to reiterate the falsehood. And in the United States, which knew the truth, the positions of the opponents of "star wars" and the supporters of the ABM Treaty were weakened. And all this in order to ultimately acknowledge a violation of the treaty and abandon construction, multimillion-ruble losses being incurred!

No less disinformation had piled up in connection with the question of intermediate-range missiles in Europe. At first (for many years) it was maintained that there was rough equivalence in terms of these weapons in the region and that in terms of weapons NATO was superior to us by factor of 1.5. Therefore, were we to consent to the "zero option," the other side would gain twofold superiority in delivery systems and triple superiority in nuclear weapons (this argument comes from our official military publication "Whence the Threat to Peace," "OIUM" in abbreviation, 1982, p 87). But when government data on intermediate- and shorter-range weapons were published, it transpired that to achieve "absolute parity"—that is, zero—we had to reduce 3.5 times more warheads than the Americans and twice as many missiles.

Even more striking things were going on as regards estimates of the balance of conventional arms, in Europe specifically.

We were assured for a long time that there was approximate parity here. The numbers of armed forces, specifically, were roughly identical. Prior to 1985 the USSR Defense Ministry also was maintaining that the Warsaw Pact and NATO had "an approximately equal number of tanks" ("OIUM," 1984, p 78). Not to mention all the rest. But something different was subsequently ascertained—we had more servicemen, as, equally, more of almost all types of weapons. But how much more—once again we had long and assiduously been led by the nose. At the start of 1988, on the threshold of the Vienna negotiations, it was said that the Warsaw Pact had 20,000 more tanks than NATO and that there was equality in artillery, but that, on the other hand, the West was superior in attack aircraft—by 1,400. But all together—once again parity. Less than a year later we published new data according to which Warsaw Pact superiority in tanks had grown to 30,000 and a superiority of 15,000 artillery pieces had "emerged." And this was once again called approximate parity (this approximate parity!). Three months later, in April 1989, one of our leading figures declared that the Warsaw Pact had 80,000 tanks, and NATO, 40,000 (NATO denies the latter, incidentally). But to listen to General Medvedev, even this seemingly is parity—he calls it "approximate equivalence." The general rebukes me for emphasizing

our superiority in tanks while failing to take into account U.S. superiority in tactical attack aircraft and naval forces.

How is this for being sly! One could always find a pretext for avoiding the issue and calling black white with such manipulations. I am arguing that we are spending far too much on weapons and the army. And in many spheres we have great, unnecessary superiority. Consequently, spending may be cut. But substituting the subject of the discussion, General Medvedev slips in the little issue: Yet, they have more tactical attack aircraft (truly more, most likely, provided that the other party agrees with this aircraft classification, of which I am not certain; but even here it could say that the Warsaw Pact has, according to our own data, 36 (!) times more interceptors than NATO). And in conclusion he throws down his "trump card"—what about naval forces? This is a serious issue. In terms of major warships, the United States and NATO truly have a large advantage. And they should consent to negotiations on this issue also.

But this does not remove the subject in question. If the Americans are perpetrating excesses with naval arms, does this justify our behavior with ground-based arms? And who is worse off from the fact that we are spending fantastic amounts on the creation of superfluous ground-based arms—the United States or we? The answer, in my opinion, is obvious. In order to remove our superiority and match the level of the West, we and our allies will have to destroy piles of weapons—approximately 40,000 tanks, tens of thousands of armored personnel carriers and artillery pieces, and thousands of aircraft and helicopters—three times as many weapons, as a whole, than NATO, the more so if an arms reduction agreement is reached at the Vienna negotiations. And I foresee our military and military-industrial leaders starting to complain about "unjustified concessions," which could make an impression on the uninitiated; but I am not sure that the counter-question will be asked: Why did we build triple the number of weapons and who will answer to the people for this? After all, money, materials, and the labor and intellect of our workers, engineers, and scientists were invested in each of these weapons. As if all this was of some use for a solution of our acute economic and social problems and for a rise in the more than modest living standard of the people—unworthy of such a wealthy country as ours!

And so far we have just been speaking about the "tip of the iceberg," about what they have finally condescended to reveal to us. But what is still hidden? And how long will it remain hidden?

I have many questions for our military comrades. I understand that I cannot ask everything publicly. But I shall still risk asking some things.

My first question is about aircraft carriers. As I understood from the article in PRAVDA in the autumn of 1989 and the explanations of Adm. V. Chernavin published in the same issue, we are building three aircraft

carriers (we have launched two of them) or, as they are called in the words the admiral used the next day, "heavy aircraft-carrying cruisers." How much will they cost?

Since that is apparently a secret, I shall give the American figures on these aircraft carriers (it is no secret there). So in the United States today an aircraft carrier costs more than \$3 billion. And including the carrier based aircraft and escort ships (all together these comprise an "aircraft carrier task force")—\$18 billion. Maintenance of this force costs more than \$3 billion a year. Well, why are we making such expenditures at a time that is so difficult for the country, the more so when international conditions are fairly favorable? I should like to hear the answer to this question from our military comrades.

The second question is about the quantity of arms produced. This is another one of our big secrets. Therefore, I shall include the following table from the official American publication SOVIET MILITARY POWER: PROSPECTS FOR CHANGE, 1989, concerning the production of the main kinds of military equipment in the USSR in 1988 (I know that last year the production of many kinds was significantly reduced and they even said by how much—but based on what?).

Types of Combat Equipment				
	USSR	all Warsaw Pact	United States	all NATO
Tanks	3500	4200	775	925
Infantry fighting vehicles and armored personnel carriers	5250	5850	1000	1950
Field artillery	2000	2700	225	275
Multiple-launch rocket systems	500	550	48	53
Antiaircraft artillery	100	175	0	170
Bombers	45	45	22	22
Fighters (ground attack aircraft)	700	710	550	750
Helicopters	400	525	375	575
Large surface vessels	9	9	5	11
Submarines	9	12	3	13
Intercontinental ballistic missiles	150	150	19	19
Submarine-launched ballistic missiles	100	100	0	10
Medium-range missiles	50	50	0	5
Short-range missiles	450	450	0	0
Long-range sea-launched cruise missiles (SLCM)	200	200	280	280
Short-range SLCM's	900	900	400	550

And again I ask our military comrades to answer: Are these figures correct or not? Or at least tell us when these or other such figures will be revealed to the Soviet parliament and the Soviet public, as is already being done in the majority of other civilized countries? In a year? In 10 years? Or by the year 3000?

With this I am responding to one more reproach hurled at me by General V. Medvedev: In 1990 the Americans planned to spend \$115.7 billion on arms and we planned to spend only R44.2 billion. "These figures," he writes, "speak for themselves." No, esteemed general, they do not speak for themselves. In order for them to speak they must not only be correct, but also be accompanied by the cost of each kind of item. What will a tank cost in our country today? Or a ballistic missile? And what do they cost the Americans? This question is the more significant since our prices are established artificially, by the government itself.

The third question: It is known that last year Aeroflot was unable to transport more than 20 million passengers who wished to travel—mainly because of a lack of fuel. Yet I hear from specialists that last year military aircraft burned almost three times as much as all of Aeroflot. Is this true or not?

And of the many questions that are bothering me, one last one: Is it true that we have several times as many generals and admirals as the United States, and in the United States there are 3,400 of them? Perhaps you could declassify at least these figures. And why do we have what seems, according to the most recently published figures, to be such a confused structure of the Armed Forces—is it not to increase the number of positions for generals?

The number of generals is directly related to the crucial problem of the social benefits and privileges of the military leadership (the Armed Forces conceal them especially zealously even from the corresponding commission of the Supreme Soviet—I know this from my colleague deputies). And it is not without reason that Comrade V. Medvedev tries to drown this question by confusing it with the question of the difficulties Soviet military servicemen have to go through. Many of them actually are poor, they do not have housing, and they are deprived elementary social protection. This is our common shame and disgrace, and it pertains above all to the Ministry of Defense. I recall that I spoke of this at the Congress when trying to suggest ways of solving the problems rapidly—by reducing a certain share of expenditures on arms.

V. Medvedev did not agree with this. These problems cannot be solved at the expense of Ministry of Defense funds, he writes, "since its (this ministry's) items of expenditure are determined by the minimum needs of providing for defense." Is this really how they are determined? And are they indeed minimal? General M. Moiseyev, chief of the general staff, in his interview in

IZVESTIYA of 23 February this year expresses a different viewpoint: "The Armed Forces have an immense reserve for economizing on monetary and other funds through more efficient management." I do not know what specifically he has in mind, but I am confident that there are places where the Ministry of Defense could economize. Not in millions but in billions.

For my part, I would suggest, for example, this variant of solving the housing problem for officers and warrant officers. As General Medvedev writes, there are 180,000 families of military servicemen without apartments. A cooperative apartment with two or three rooms costs an average of R15,000 to R20,000. This means that 180,000 apartments would cost R1.5 to R2 billion. Even if our aircraft carriers cost half as much as the Americans', one of the three would be enough. And, taking carrier-based aircraft and escort ships into account, there would be more than enough for 100,000 apartments for military servicemen reassigned from the East European countries.

Will this weaken the country's security. I am confident that it will not. On the contrary, it will strengthen it since the morale and also the health of 180,000 officers and warrant officers will improve, and, after all, the human factor is of primary significance in military affairs. Moreover, military servicemen will not have to compete with civilians, workers who have been many years on the waiting list for housing, from whom my opponent suggests taking it away in favor of the officers (although, of course, in a difficult situation the local authorities should help the Armed Forces).

These immense obstacles, which are largely unnecessary and apparently are not even subject to the proper accounting (the case reported in the press about the trainload of artillery pieces "forgotten" at the Kaluga train station is not an isolated one) have created fertile soil for abuses and even crimes.

I shall risk the assumption that in addition to the submarines that are burned and sunk, the aircraft that fly by themselves without pilots, "hazing," and many other things are increasingly frequent symptoms of a serious disease in our Armed Forces and the entire military-industrial complex. I would call it, this disease, megalomania complicated by a separation from the real capabilities and needs of the country and escape from the control of society. Only perestroika can cure this disease—perestroika not only in all of our society, but also in the gigantic empire of the defense industry (its conversion and return to the society comprise a special, very large subject) and also, of course, perestroika in the Armed Forces. They should not be transformed into a kind of "state within a state."

And above all the restoration of society's control over the Armed Forces and the defense industry. Judging from V. Medvedev's article, this issue is very uncomfortable and even unacceptable to the military leadership. He simply tries to "talk it to death." "Let us reason together," he

writes. "The mechanism for making decisions related to the construction and development of the Armed Forces, not to mention their utilization both outside and inside the state, is known." Further, grudgingly admitting that "previously everything was decided by a small group of political leaders" (note that military leaders had nothing to do with this), he paints a picture of everything already being in order, with the marshals and generals deprived of any right "to any kind of arbitrariness."

And there is not a word about mechanisms that would provide for democratic political control over issues that are of immense importance to the people—war and peace, the utilization of the lion's share of industry and science, the budget, and the most valuable natural and human resources, and the use of the Armed Forces abroad and inside the country. This, as he states, is "known," and it is known that today no large issue is resolved without a decision from the higher organs.

The more highly placed military leaders are not so terse and develop this subject in greater detail. For example, D.T. Yazov says that "in order to develop the concept of the construction of the Armed Forces in 1991-1995 and for the period up to the year 2000, a special commission has been formed" consisting of representatives of the USSR Supreme Soviet and other institutions. But General M. Moiseyev asserts that "literally every ruble and the expediency of its utilization has undergone open and public discussion in the Defense Council, the party Central Committee, the Committee of the USSR Supreme Soviet for Questions of Defense and State Security, and sessions of the Supreme Soviet."

If this is true, I am glad. But I am finding this out from them for the first time, and I knew nothing about it before now. Although I am a member of the CPSU Central Committee and the chairman of one of the subcommittees of the Committee of the USSR Supreme Soviet for International Affairs. I can state quite responsibly that not only did I not participate in these discussions, but I did not even hear that, in the USSR Supreme Soviet and its committees anyway, the military budget for 1990 was even being seriously discussed. Not to mention "each ruble."

And the work of the Committee of the USSR Supreme Soviet for Questions of Defense and State Security does not inspire a great deal of optimism either. General V. Medvedev can, if he wishes, distort my idea and introduce all kinds of quotes about the significance of the word "lobbying" from political dictionaries, but this will not change things—there is no other parliament in the world in which a good half of this committee is comprised of representatives of the leadership of the defense department and the defense industry. Just as there is no other parliament which includes such a large number of generals (there are 14 or 15 of them among the deputy defense ministers alone) and leaders of large military-industrial firms.

No, it is not at all as well as Medvedev writes and as Generals Yazov and Moiseyev try to convince us. The mechanisms of decision-making and democratic control in this sphere of utmost significance to the people and the state and the necessary laws and procedures have yet to be created.

Evaluating the military threat is yet another important issue. Actually it is the key question for all decisions in the sphere of defense: decisions on funding, weapons programs, and the size of the Armed Forces. As the article of V. Medvedev, among others, suggests, some military functionaries have their own special point of view on this matter as well.

In particular, the general expresses his disagreement with my statement that "new political approaches and directives have already brought about a reduction in the level of military threat." Supposedly, this could cause "complacency"; this is "undue optimism." These are serious accusations. However, in this instance he is not at all taking issue with me or my article, but rather with our new policy. If the military threat had not been reduced, could we really have unilaterally reduced the army by half a million men, scrapped 10,000 tanks and a multitude of other weapons? Certainly, I could shoot the general down effortlessly with a quote from a recent interview with M.S. Gorbachev in the newspaper PRAVDA: "Forces so powerful are engaged in world and European politics that the actual military threat has been substantially reduced; the process of formation of a system of collective security which is new in principle is underway."

However, ultimately it is not about quotes; it is clear to anybody who lives with his eyes open, reads the newspapers, listens to the radio, and takes interest in what is happening around us that the international situation has changed in recent years, and the military threat has been reduced.

However, why do some highly placed military men fail to see and acknowledge this (incidentally, not only ours, but also American military men—this is also "a mirror image" which is, perhaps, due to similarities in the departmental interests)?

Apparently, my critic understands that all of his readers are bound to ask this question. This is why he hastens to assure us that the army "has enough opportunity to obtain complete data not only on the genuine status of the military potential of every individual capitalist state, but also on long-range plans of their military alliances." He exclaims: "This is why it is hard to suspect the military of the lack of objectivity and competence."

I would like this to be the case. However, for now it does not sound convincing. Why do the generals proceed one after the other to draw conclusions on the rates of change in the military expenditures of the other side on the basis of the rate of inflation rather than real funding? Why did USSR Minister of Defense D.T. Yazov in his interview to PRAVDA on 23 February of this year repeat the

already criticized calculations by Marshal S.F. Akhromeyev with an estimate of the strength of the American regular army? The latter included in it 1,155,000 reservists and members of the U.S. National Guard. Did they really fail to communicate to the minister of defense that these numbers are incorrect, that they inflate the number of American servicemen by an entire one-third? And that, if the Americans counted the same way as S.F. Akhromeyev does, they would have every reason to add to the 3.99 million declared by us 200,000 border troops (this statistic was released recently; since there are no Soviet data on other categories, I will use here and henceforth the estimates of the International Institute for Strategic Studies in London which is respected among specialists), 340,000 internal troops, 540,000 railroad and construction troops, as well as 5.5 million people in ready reserve. If these numbers are wrong, let the military comrades, as they say, correct me. However, according to the method of Comrade S.F. Akhromeyev, we have a regular army of 10.6 million!

Is this incompetence or lack of objectivity? Or just departmental slyness, an attempt to inflate the military threat in order to get more money, weapons, and people? All of the above are improper at present. The country is going through a period which is too complex and difficult to play such games.

I believe that the military should not be given a monopoly on evaluating the threat of war. Likewise, this evaluation should obviously not be done without taking their opinion into account. A dialogue of military and civilian specialists is indeed necessary in this area, as well as in many others, including even their special aspects—for example, the degree of probability of a large-scale "conventional" war (that is, fought with conventional weapons, without the use of nuclear arms) between the USSR and the United States. To me, it appears as unthinkable as a skirmish between an elephant and a whale. However, our military men, as well as some Americans, believe that it is quite possible, insist on it, and justify by this a number of extremely costly military programs. I believe that this question needs to be discussed seriously and also publicly inside the country, in our contacts with American parliamentarians, specialists, and representatives of the public. The same is the case with other scenarios which frighten the military men (or the ones with which they frighten us)—for example, an opportunity to create a weapon which disables electronic devices and thus leaves the victim of aggression defenseless.

A broader issue is also on the agenda: to find out what the role and place of the military threat is among other threats to the security of the country (an interesting document researching some approaches to accomplishing this task was prepared in one of the committees of the USSR Supreme Soviet headed by Academician Yu.A. Ryzhov). I believe that attempts to claim the primacy of one's own department in accomplishing this task and to establish one's monopoly on patriotism on this basis are particularly intolerable in this sphere (after

all, there is only "military-patriotic conditioning" in our vocabulary and there is no "civil-patriotic" one). This is, of course, my personal opinion, and I do not claim that it is indisputable: At present, the country is threatened with an economic collapse, ecological catastrophes, and the growth of social and ethnic tensions rather than a military danger. Costly programs are needed to avert these dangers, which now have to compete with military programs in the course of considering the budget, with equal reason to expect to be treated carefully, as a patriotic program which the Motherland needs.

In summation, I would still venture to respond to the appeal by General Medvedev and, as he writes, "prompt"—without any claim to the absolute truth, to be sure—how to ensure the reliable defense of the country while reducing military expenditures by a factor of one-and-a-half to two.

First of all, due to the new political approaches and directives, further efforts in the policy of peace and disarmament which the general treats with unjustified neglect.

Second, due to an efficient military reform. We should finally stop quarreling and discuss this problem seriously, giving up the incorrect, tendentious considerations that we cannot afford it. These considerations cause still more doubts: How can our chief of the General Staff, arguing against the concept of a professional army, in the interview quoted above, inflate by a factor of two U.S. expenditures for maintaining the U.S. Armed Forces personnel? The Pentagon spends 26 to 27 percent of its annual expenditures for this item, rather than more than 50 percent, as the general states. Incidentally, before switching to a professional army, the Pentagon used to spend 38 percent. This is what the considerations about the maintenance of a professional army costing us five to eight times more than at present are worth (incidentally, D.T. Yazov quoted another number on this very day, but in PRAVDA rather than IZVESTIYA—at a minimum, three times; does this discrepancy not indicate all by itself how dubious the accuracy of such calculations is?).

Third (this is directly associated with the reform), due to shifting our emphasis from quantity to quality and rejecting provisions for enormous amounts of weapons and an enormous army. Having armed forces which are four-million strong along with the most advanced types of weapons, including weapons of mass destruction, we somehow forget that after the Civil War and until 1927 an army of 500,000 ensured the defense of our borders (in a hostile environment at that), and until 1937—the Red Army of less than 1.5 million. I altogether refuse to understand how this enormous army did not suffice for the January operation of a limited scope in Baku and reservists had to be called up. Perhaps, at issue is quality, in this case, the quality of command, rather than quantity.

We have been able to see that in military endeavors as well great quantities and high quality are incompatible (at any rate, given our technical and economic potential). Our entire experience, beginning with the experience of the Patriotic War, shows that quality is more important, especially at present, when we deal with highly sophisticated military materiel. There are many letters in my deputy mail from servicemen who complain that they continue to neglect the quality of weapons in pursuit of their quantity. I am not prepared to agree with the authors of one of the letters who accuse the military leadership and the military industry of engaging in "unlawful deals" and maintain that "an immoral philosophy is the foundation of operations of the military-industrial complex: There is not going to be a war, and if there is, neither defendants nor plaintiffs will be left." However, these suspicions have a foundation in actual facts, of which the main fact is: We just cannot cope with such quantities (incidentally, as well as the Americans, whom excessive military expenditures have made the greatest debtor in the world in 10 short years, undermining their competitive positions on the world market).

Our specialists have proposed many other ways to reduce military expenditures without sacrificing our defense capability and, on the contrary, reinforcing it. After all, a reliable defense will remain necessary for us in the future as well—a more reliable and less costly one than at present.

It is time to begin discussing how to ensure this defense extensively and by no means privately (incidentally, as was the case in our country in the 1920s and even in the State Duma before the revolution, although Tsarist Russia was never an exemplary democracy). Our country, its security, and the Armed Forces only stand to win in the process.

I find surprising attempts to portray as defamation any manifestation of glasnost and the very emerging practice of asking questions and criticizing (be it of the army, the party, or the government). I can easily imagine that criticism and glasnost result in unpleasant feelings and discomfort; like other scientists, I have had to endure it personally many times. However, we do not scream about "defamation," we do not ask that the mass media "be curbed," and do not seek protection from the leadership. Could it be that glasnost is particularly hard to take for those unaccustomed to it, those who were reliably sheltered from such criticism before? However, we also know something else—how dearly criticism-free areas have cost our country and our society, and not only our country, but also those who were sheltered from the fresh wind of glasnost and for that reason became seriously ill.

I believe that essentially I have responded in the present article to a "critical salvo" fired at me by Marshal S.F. Akhromeyev (KRASNAYA ZVEZDA, 8 April 1990) and Major General G. Kirilenko (LITERATURNAYA

ROSSIYA and KRASNAYA ZVEZDA, 21 March 1990)—at any rate, on the merits of their main arguments.

As far as the form, personal attacks, phrases, and even elements of a political denunciation in the best style of Stalin's times, I will leave that on the conscience of the general. However, I hope I will have occasion to respond to these attacks separately.

I would not like this article of mine to be perceived by comrades in the military as a challenge, as a confrontation. I proceed from the fact that there are many issues of which a joint, respectful discussion would be useful. I proceed from the fact that we have things to learn from one another. I proceed from the fact that all of us are honest Soviet people who want one and the same thing—the prosperity of our Motherland and its security in the face of all external and internal threats, as well, of course, as the good of our Armed Forces and their successful restructuring.

If the comrades agree with this, let us make a transition from confrontation and mutual accusations to an honest, principled, and benevolent dialogue, without any deviousness.

Footnotes

1. In order to close this matter, if only in respect of myself, I would say that I lay no claim to the role of military theoretician. My combat experience of World War II times is modest enough. Although it is hardly, I believe, less than the Afghan combat experience of the high-ranking political officer Ovchinnikov (the combat contributions of Comrade Chernavin I simply do not know). I was a survey officer of a rocket artillery ("katyushas") battalion, then battery commander, deputy battalion commander, and deputy regimental chief of staff for reconnaissance on the Kalinin, Steppe and first and second Ukrainian fronts, and was demobilized in 1944 as an invalid of the Patriotic War Group II. As far as competence on the issues being discussed in this argument are concerned, I have for more than 20 years, as director of the USSR Academy of Sciences United States and Canada Institute, been involved in the study of the United States and its military policy and Soviet-American disarmament negotiations. However, we will return time and again in this article to the matter of competence.

COPYRIGHT: "Ogonek", 1990

Deputy CINC, SRF in Round Table on Character, Direction of Military Reform

90UM0440B Moscow LITERATURNAYA GAZETA
in Russian 7 Mar 90 p 10

[LITERATURNAYA GAZETA round-table discussion under the rubric "In the Dossier of the USSR Supreme Soviet": "The Army on the Threshold of Reform"]

[Text] The document entitled "The Concept of Military Reform" was reproduced back at the 2nd Congress of People's Deputies of the USSR. It was signed by officers/

people's deputies of the USSR. They calculated that the congress would have enough time to discuss the proposed draft. Unfortunately, the discussion did not take place, although its urgency was obvious, a fact adequately demonstrated by a scan of the latest issues of KRASNAYA ZVEZDA, OGONEK, MOSKOVSKIYE NOVOSTI and a large number of other publications.

The concepts set forth in the draft, in our opinion, acquired new meaning and underwent further development at the round-table meeting at LITERATURNAYA GAZETA.

The following took part in the discussion of problems pertaining to the military reform: Col S.F. Vikulov, doctor of economics and professor; Col (Reserve) Yu.I. Deryugin, candidate of philosophy; Maj V.N. Lopatin and Col V.S. Smirnov, people's deputies of the USSR; Lt Gen (Retired) V.V. Serebryannikov, doctor of philosophy, professor; Lt Gen I.V. Sergeyev, deputy commander in chief of the Strategic Rocket Forces; V.P. Selivanov, former test pilot; Maj Gen V.M. Nikitin, General Staff department chief; Yu.V. Zarechkin, member of the LITERATURNAYA GAZETA editorial board; and V.P. Yanelis, LITERATURNAYA GAZETA observer.

"We Are Constantly Plugging Up Holes"

Yu. Zarechkin: Interest in the processes occurring in the army is certainly not hypothetical. The subject of the army has become an extraordinarily vital one for the society today. It combines not just purely military problems related to the organization and the development of the Armed Forces but sociopolitical and social problems as well. I refer to events in the Transcaucasus, in which the army performed "functions not normal for it," as people express it today. And the definite moral damage done to the army by the unjust Afghan war—unleashed, incidentally, not by the army at all.... At the round table today, however, we would like to single out primarily those questions directly related to the military reform: Should the army continue to be semi-volunteer or is it time to switch to a professional basis? How can we enhance its public status and find the optimal combination of democracy and one-man command? How can we protect the rights of servicemen of all ranks?

[V. Serebryannikov:] There exists the persistent opinion that after Lenin, beginning in the '20s, our army was based on the Stalin plan, which led to profound distortions and buried such concepts as democratism, solidarity and respect for the individual, and that if the army has victories to its credit, they were achieved not so much by the quality of the military's performance as much as by its superiority in forces and in the number of bayonets.

I would counter the above with the fact that, despite various sorts of distortions, the military still accomplished its missions successfully. But does this mean that everything is the way it should be in the army today?

Let us begin with the fact that the army should be directed by state legal institutions—the Supreme Soviet, the government, the Defense Council—and not by a narrow circle of party leaders....

[V. Lopatin:] As it interferes in matters of operational leadership, the party overlooks something else more important. Its program states, for example, that from the standpoint of internal conditions the Soviet Union does not need an army. The situation has changed in recent years, however. The need for the Armed Forces is no longer determined just by the threat from outside, but also by the threat from within, when areas of social tensions turn into hot spots of warfare. In my opinion, this party position is not well thought out today.

[V. Selivanov:] We apparently have no mechanism at all capable of forecasting social disasters or predicting the future. We have scientific centers and battalions of all sorts of political consultants, but we are constantly plugging up holes. Even in the army. Yes, even in the army....

[V. Serebryannikov:] Since we are on the subject, I cannot refrain from making one criticism. How is military policy worked out at the present time, and how is it discussed? It is mentioned in ritual form at party forums: The Armed Forces must vigilantly protect the homeland. And that is it. But under Lenin it had its own democratic instrument for developing military policy. And it drew upon army and navy Communists and the command and political staff. During all the post-war decades, however, not a single party congress has specially discussed questions of military organizational development.

[V. Yanelis:] Are you suggesting that those taking part in the discussion should not necessarily be military?

[V. Serebryannikov:] And why not? The people give their money to the army, so they have the right to know how it is to be spent. As a tax-payer any citizen can demand the elimination of unnecessary, expensive structures.

[V. Yanelis:] Incidentally, it is not very clear to me personally what role the political organs will play in a multi-party system, which we will inevitably have in the future. Some one of three leading parties in the society, let us say, cannot monopolize ideology in the army. In my opinion, this is the right time to think about establishing the institution of military psychologists to replace the present political corps. Their functions could probably include the development in the personnel of such basic qualities as a sense of duty, honor and dignity.

Arm Everyone?

[Yu. Deryugin:] The army is rent by conflicts. According to sociological studies, 50% of the servicemen do not have an opportunity thoroughly to realize their creative potential or their constitutional rights; 75% of the officers feel that conditions conducive to professional growth have not been established in their units; up to

80% of them complain about their housing conditions, about clothing and equipment supplies....

I want to direct attention also to the ethnic factor. According to data from American scientific centers, representatives of the Central Asian and Transcaucasus regions will make up half of our army after the year 2000. They account for more than a third today. The number of draftees who do not know the Russian language is increasing by the year. And the situation will become even more complicated with the introduction of bilingualism. We have already encountered problems of "ethnic cliques," which form their own, nonregulation microclimate in the units.

[Yu. Zarechkin:] Judging from the editorial mail there are grounds for believing that the factors influencing the development of nonregulation relations do indeed increasingly have an ethnic aspect.

[Yu. Deryugin:] I would underscore the point I wanted to make, which is that all of the problems can be resolved only within the framework of military reform, by giving the army a fundamentally new quality. But, comrades, do we have the right to talk about military reform without even a concept of restructuring in the army? In preparation for the round table, I read the book "Vremya peremen, vremya deystviy" [A Time of Change, A Time of Action] by A.D. Lizichev, chief of the Main Political Directorate. And I marked out all of the generalized words in it. What was left? A total of two or three facts. In addition, I found the following interesting passage in the chapter called "The Concept of the Restructuring in the Army and Navy": "A short-sleeved shirt, a wool camouflage jacket like the Navy's blue jacket and a wool service cap with piping... have been introduced for the officers." This is a concept?!

[V. Nikitin:] I have a certain sense of dissatisfaction with the discussion. If only for the fact that among us are no representatives of the Main Political Directorate and Main Personnel Directorate. It is as though we are talking behind the backs of those to whom all of this directly applies.... One can quote everything, of course. And we have done so. Even Lenin. And always in a form suited to us.

Moreover, any discussion is conducted with a view to arriving at a common denominator. Is it not strange, however, that I, a General Staff worker, receive a document entitled "The Concept of Military Reform" and signed by people's deputies of the USSR for the first time here, today?

[V. Lopatin:] I do not know who is to blame for this. Since 7 December of last year our draft has been on the desks of Ministry of Defense officials. Furthermore, General Staff specialists made an expert appraisal of it. And in general they confirmed the need for military reform.

Our concept is also approved by the General Staff, with one exception: the principle for manning the army

should remain unchanged. But this is the basic element in the reform! How many decades have we been trying to drive all of the youth through the army upon reaching draft age! And why? Because we need tens of millions of reservists? Who calculated these needs?

[V. Nikitin:] That is incorrect. I am directly involved in the manning of the Armed Forces. I can assure you that we draft into the service not everyone who can be drafted but exactly as many as are needed.

[V. Lopatin:] How is this need determined?

[V. Nikitin:] The army is built on the basis of operational-strategic need. In addition, we prepare reservists. Defense of the state is the job of all the people, after all. This premise is set forth in the Constitution, which no one has repealed yet....

[V. Serebryannikov:] This essentially amounts to universal militarization of the population. All those who have no grounds for deferment and whose health permits it go into the service. Is this not a squandering of labor resources? Or perhaps we need special structures within the state to deal with the training of reserves?

The Americans, for example, have an Army Reserve and a National Guard. In addition, reserves are trained by various military departments. The army does not handle this directly. But we have a human river constantly flowing through our army.

[V. Nikitin:] The same kind of river flows in most of the European nations. It previously flowed there, at any rate....

[V. Lopatin:] In the civilized nations there is a professional army along with structures for training reserves. France, the FRG, England....

[V. Nikitin:] Excuse me, but we have the institution of extended-duty personnel. These are professionals. They sign contracts. One can consider that they and the officers comprise a third of the overall strength of the Armed Forces.

[Yu. Deryugin:] We should not engage in self-deception. We have created a giant military machine, which is engaged mainly in servicing itself and in performing national economic tasks. A professional army would not engage in these things. That is probably what we fear.

[V. Nikitin:] It is more than just strange to talk about establishing a professional army today. Who would prepare the food for the personnel? Who would mop the floors in the barracks, build the ranges—in short, who would do the servicing? If you are thinking about some sort of alternative service, this is an illusion right now. We have neither a corresponding law nor thoroughly developed structures.

[V. Deryugin:] No one is demanding that the entire army be turned into a professional one tomorrow. In its search

for a solution to the matter, however, the Ministry of Defense looks for arguments to keep everything as it is....

Professionals and Dilettantes

[N. Sergeyev:] We all want to see our army strong, morally healthy and intelligent. The question is how to produce an army which meets these requirements. Should we choose revolutionary or evolutionary methods for implementing the military reform?

By rejecting the principle of universal military duty are we not at risk of ending up where we started? The decision was made to discharge students from the army. The result was immediately felt. The intellect departed and gaps formed which, unfortunately, we have almost nothing to fill.

I just returned from the Transcaucasus. I was in one of the formations of mobile intercontinental missile systems. These are exceptionally complex weapons. We previously had no problems with their servicing. In front of me were 40 Azerbaijanis of the fall induction. Only two of them seemed to understand Russian. Two out of forty! What now? Teach them the language? And we are held accountable for the combat readiness, after all.

We must not make more mistakes. We must have input not just from the military specialists, but also from the scientists—political experts, sociologists, economists.

[V. Nikitin:] We are not so antiquated as some people think. By decision of the Ministry of Defense preparations have been made for an experiment in the navy. We take draftees and send them to a training detachment for six months, where they undergo active military duty, as it were. We then sign a contract with each of them for a period of two and a half years. All those we invite to remain for that period will receive the same amount as extended-duty personnel, with all the increments. I will honestly say that I await the results of this experiment with concern and trepidation....

[Yu. Zarechkin:] It is good that something is being done, even if it is only an experiment. But why wait three years for the results. Why not extend the experiment to the air force, the naval infantry, the airborne and missile troops immediately?

[V. Lopatin:] This is the General Staff's answer: Where are we to get the funds? We have calculated that a professional army would cost us five to eight times as much.

[V. Nikitin:] Do you have reason to distrust these figures? They were not taken out of thin air, after all. The matter has been studied by General Staff specialists.

[S. Vikulov:] These figures do not convince me of anything. We have now taken up this problem at our own initiative and are developing the methods and building an economic model which can be used for assessing various versions of a professional army. Unfortunately, the work has not been completed.

[V. Serebryannikov:] The developing nations—India, Pakistan and China—are presently moving toward the professionalization of their armies, and all lower-ranking and NCO technical specialists have already been moved into the category of professionals.

[V. Smirnov:] I believe that this route of replacing the first-term NCOs with regular junior commanders is also appropriate for us. This army would eliminate all sorts of dedovshchina and nonregulation relations. And the officers would be freed of their petty monitoring of subordinates. Once again you will say that this is expensive. But what about home-grown chieftans and the disqualification of the officers? Is that less expensive?!

[V. Serebryannikov:] When we advocate professionalization, however, we should be clearly aware that the civilian status of the serviceman and the entire system of relations in the army will be totally altered. Today, after all, the state essentially dictates the service terms and, like it or not, the soldiers accept them. As soon as the army begins to be formed on a volunteer basis, however, this will put an end to the system's dictate.

[V. Lopatin:] And what about the military economy? Why are we not taking into account the fact that a conversion to a professional basis will drastically reduce the number of breakdowns of equipment, accidents and disasters and will reduce the need for combat equipment? I would point out something else. Our draft military reform concept states that a professional army would reduce the number of military educational institutions and academies, of which there are presently around 150.

We can go even further. The introduction of a dual-level system of subordination will also considerably reduce the number of positions for officers and generals. And then who is preventing us from making more extensive use of civilian specialists in the army, from standardizing military production to the maximum possible degree. Finally, we need to eliminate the expensive privileges of high-ranking chiefs.

[I. Sergeyev:] I agree with Vladimir Nikolayevich. It is time to move on from abstractions to arithmetic. But let us ask ourselves whether a professional army is a goal in and of itself. It is a method, if you like, a way to resolve the main problems, those of enhancing the combat readiness, creating more dynamic military structures and finally, democratizing and humanizing the army. Will converting the army to a volunteer manning basis enable us to do all of this? We are counting on it. Will we find ourselves faced with different problems? The possibility is not ruled out.

Let us assume that we have dealt with the army's duties with respect to protecting us from an external enemy. This will be appropriately reflected in the contract which the state will conclude with the volunteer. We also have to study a model for using or declining to use the army at

times of internal disasters, however. How will this affect its moral image and its functional role within the society?

Comrade deputies, whom are you complaining about?

[V. Yanelis:] How do members of the Committee on Defense and State Security of the USSR Supreme Soviet regard the draft military reform?

[V. Smirnov:] It would be difficult to give a simple answer. Debate is underway in the committee. It has a heterogeneous membership. Some defend the interests of the military-industrial complex; some, the interests of the General Staff and the Ministry of Defense. It seems to me, however, that most members of the subcommittee on the Armed Forces have now come out in favor of discussing the concept of military reform before getting to work on the specific draft laws proposed by the Ministry of Defense. So some progress has been made.

[I. Sergeyev:] I assume that everyone here understands there is much which does not depend upon the military. There is a certain military-industrial commission. And matters pertaining to armaments, the development of technology and even military policy are decided primarily by it. I recall the first time I came to the Kremlin to attend a session of the VPK [Military-Industrial Commission]. I thought that I would see only generals. I found mostly civilians, however, while the generals would move around saying: I need this. I need that. They were told: Take what there is.

[V. Selivanov:] That is true. And then you whine that the systems are piles of junk, that they consume too much energy, are heavy....

[V. Sergeyev:] That does happen, but in general I have no cause to complain about military industry. When we were assigned the task of destroying missiles subject to elimination, we had two methods: blowing them up or launching them. We took the risk of destroying them by launching. The Pioneer missiles were launched and struck the mark, so to speak. The American observers even applauded.

[V. Lopatin:] Unfortunately, there is not applause everywhere. It is not impossible that at some point four of our aircraft-carrying cruisers will be nothing but empty boxes. The number of YaK-38 VTOL helicopters is dropping disastrously by the year. They need to be urgently replaced with other, more reliable helicopters. Such a helicopter is presently being developed at one of the design offices. The design office dashes around feverishly in search of all the funds necessary for completing the model, however. The scientists are told: The aircraft is for the navy. Go to them. They are parried at naval headquarters with the statement: This is an aircraft not a ship. Go to the Air Forces.

[V. Serebryannikov:] An independent research center is needed for resolving these problems. We do not have one. Nor is there a military science free of departmental influence.

[V. Selivanov:] I believe we need to begin by establishing a commission which is not dependent upon the military-industrial complex.... The commission would begin with an economic analysis of the expenditure of defense funds and take a close look at every military program. We should then set about the reform on the basis of its conclusions.

[Yu. Deryugin:] Such an analysis would not hurt, of course. It would probably not be appropriate to make the preparation of the military reform dependent upon it, however. Everything could be done simultaneously. First of all we need a special comprehensive program for reorganizing the Armed Forces. And I agree with Selivanov that it should be worked out by independent scientists.

[V. Serebryannikov:] The Communist Party should also have a say. And we should not wait for the 28th congress. Our party has enough intellect and will to accelerate the resolution of urgent matters.

For now, however, we are regretfully forced to say that the party leader has not found the time in five years to meet with the military community, to look into its concerns, to express its point of view. And I am talking about a working meeting and not one for show. The military reform itself, I believe, could be started in 1991 by making the NCOs—that is, the junior commanders and technical specialists—professionals. I am convinced that the situation in the barracks would change immediately.

[V. Nikitin:] Before building a bridge one must first determine its load and basic characteristics. You propose first shaping a concept and then applying the laws. But we have a large number of questions which are literally on the surface.... Something else: As we lay solid foundations for the future, we need to avoid confrontation in our own ranks. The Ministry of Defense has already been turned into a monster, which is suitable only for frightening children. And why do we need independent institutions? Will there not be adequately effective monitoring of the functioning of the Ministry of Defense? Who would be against this?

[V. Lopatin:] Why you would be. When the budget for 1990 was being approved, members of the Committee for Defense and State Security demanded that the ministry submit a detailed breakdown of the military budget. Except for figures for the main items, however, we received nothing. The U.S. military budget is publicly discussed with a breakdown into more than 100 items.

[V. Nikitin:] But comrade deputies, you are the Supreme Soviet.... Whom are you complaining about? Do you approve the minister of defense and then find yourselves powerless to obtain the figure you need?!

[V. Lopatin:] Yes, that is the paradox: We are powerless....

[S. Vikulov:] My position is that we must not be hasty with the reform itself, but we do need to hurry with the development of its conceptual principles. There is a reason for this. It would appear to be clear already that if the military reform lags—and it is already lagging—the growing disbalance will hasten the drop in the army's prestige even more.

Have we not tested fate enough? Or do we need another Rust in order to take determined steps?!

[V. Smirnov:] I am for conducting the military reform immediately. We can begin it immediately after passage of the government program for a decisive reduction of the Armed Forces. Considerably fewer youth could be drafted into the army even now, however. And we need not scatter the draft among all the military units but should send the new generation only to those subunits which determine our combat capability.

[Yu. Zarechkin:] Unfortunately, our meeting does not have legislative functions. It has only helped us to reveal and to some degree to systematize the various points of view, let us say. It is time for changes in the army. That is obvious. It is also obvious, however, how important it is for us to be consistent in their implementation.

I want to hope that our discussion will be heard by the Supreme Soviet of the USSR. We are prepared to continue it.

Army Reforms Considered 'Necessary' to Keep Pace With Society

*90UM0452A Moscow SOVETSKAYA KULTURA
in Russian No 13, 31 Mar 90 p 5*

[Discussion conducted by SOVETSKAYA KULTURA correspondents Eduard Lunev and Vitaliy Potapov under the rubric "The Restructuring in Individuals and Situations": "The Army and the Society: Who Serves Whom?"]

[Text] The army and the society is a subject of concern to everyone today. This was true in the past, of course, but was it possible just a few years ago to discuss or even to express one's opinions on the problems of this department, protected against any kind of idle curiosity?

The curiosity turned out to be justified. And from the speaker's platform in the parliament itself the military deputies are asking questions which have cried out for decades to be on the agenda.

The following took part in a discussion at the editorial office of SOVETSKAYA KULTURA: Col Justice N. Artamonov, doctor of law and member of the working group for developing the draft Law on Defense; Doctor of Law A. Zhukov, consultant to the International Department of the CPSU Central Committee; People's Deputy of the USSR V. Lopatin, senior chief of the University of Marxism-Leninism; Lt Col K. Kharchenko, chief of an Air Regiment Political Section.

The discussion was joined in absentia by A. Bovin, political observer for the newspaper IZVESTIYA, and Maj Gen N. Chaldymov, doctor of philosophy, department chief at the Military Political Academy imeni V.I. Lenin and president of the Soviet Army and Society Association.

The discussion was conducted by SOVETSKAYA KULTURA correspondents Eduard Lunev and Vitaliy Potapov.

Preface by Nikita Chaldymov

One can fairly frequently hear superficial statements in effect openly belittling today's Soviet Army. I feel that this position is erroneous and unproductive, because it is incorrect to consider the man in the uniform—or more correctly, efforts for and outlays on the army and on maintaining military parity—to be the cause of many of our troubles and our lag in the economy and in our standard of living.

In our so distant historical memory, after all, there is an entirely different attitude toward the army and its people. They were the agents of the most progressive ideas, the cream of the society, and people tried to emulate them. I would underscore the high intellectual and cultural level of the former Russian officer corps. This makes today's attitude toward the army all the more disappointing. But that can be understood. We have not yet outlived that situation in which individuals were actually not needed. The leadership was organized by the "wheels," and something "victorious and legendary" but absolutely impersonal was needed for an army. Nurtured in a situation of total lack of freedom, the army extremely rapidly became its bulwark. And in our changing society today the people naturally want to see also the army as one of the elements of democratic reform—a fairly important one at that. But for this we need constructive suggestions for a restructuring of the Soviet Armed Forces. The restructuring must be designed to bring the army into conformity with the new conditions within the state and in international relations.

[E.L.:] One has the impression that the greater our desire to live better, the stingier we become. The charges levied against the army today still have to do only with the fact that it costs us a lot.

[V.P.:] The essence of these complaints is hardly limited to the financial aspect of the matter alone. What is occurring in the Armed Forces today is fairly expensive and hard on... the nervous system of the mothers of the servicemen, the officers' wives, the servicemen themselves.

[Vladimir Lopatin:] Someone put it very correctly: A person who is not free cannot be moral. I personally find in this maxim the causes of and the explanations for many army problems. I know very well, however, that far from all of my colleagues, particularly from the higher command staff, are inclined to agree with this.

The need to democratize the entire military structure has been placed onto the agenda today, and this must be based on a law-governed state and the norms of international law. For now, however, we have something else. The system for training and indoctrinating army cadres is extremely conservative and essentially represses the individual.

To begin with I shall mention just one aspect, whose discussion can simply no longer be avoided. I refer to the restructuring of the functions of military political organs. One frequently hears the opinion that it is impossible to abandon them completely, since they exist exclusively in the serviceman's interest and serve as mechanisms for the intelligent limitation of the commander's power. I am convinced that this is the viewpoint of those who do not often come into contact with the realities of the military service. On the contrary, they serve as the drive belt of the army's one-man command and extremely successfully put any order and any assignment into ideological form.

I would call the political organs of the future a "human service." I mean that they should possibly be made up mainly of psychologists, sociologists, legal experts, psychophysicists and teachers, most likely civilians. What do the political workers do today? The answer we hear is they indoctrinate the personnel (so that they do not drink, do not go AWOL, and so forth). For one thing, however, this is mainly just talk. In fact, I repeat, their functions are more those of depersonalization and slogan-pumping, so that they have neither the strength nor the time for the actual indoctrination—pedagogical!—work. Nor do they always have the abilities.

[E.L.:] Strange though it is, the euphoria in the society over the discharge of thousands of students into the reserve passed fairly rapidly. Actually, no one talked out loud about the fact that these students had suddenly become a new burden on us. Was there space for them in the dormitories, stipends, lecture halls...?

[V.P.:] And who replaced them on alert duty?

[Konstantin Kharchenko:] The decision to discharge the students was made at the 2nd session of the USSR Supreme Soviet. It seems to me that we were truly guided by emotions in this case, and more than 100,000 students—first-term servicemen—were released into the reserve within a very brief period of time, 42,000 of whom did not renew their studies at their VUZs.... And they were the cream of the army youth! Alas, we did not further the professionalization of our army with this act. And there is no doubt whatsoever that the army is in need of professionalization. It will help us to resolve many problems which have arisen between the society and the army: dedovshchina, lack of social protection, legal and material matters, absurd callups of two-year officers, their expertise so needed in the national economy. Such problems will disappear by themselves, and this will enhance our defense capability. If I am a

professional and if I must destroy the enemy with the first missile, you may be certain that I will not accept socialist commitments for that. I will be obliged to do it by, in addition to everything else, my large earnings, which I have to deserve. It will not be necessary to force me to study the operating instructions for the equipment. They will be right on my desk.

About the ordinary soldier. He is drafted for two years. This is a person who has just done his time in school. They put shoulderboards on him and send him out to defend the homeland. He does not yet understand what has happened. It takes six months for him to adapt. During the second six months he understands where he is and what he is needed for. He begins training seriously. The third six months he grasps certain things, knows certain things as a professional: how to operate a combat vehicle, how to fire. The final six months prior to discharge he could not care less what happens to him, and he is no longer interested in further, quality training. And no deputy commander for political affairs will change that attitude! He is persuaded by the situation.... All the more, since he receives R7 and some odd kopecks for it all.

[V.P.:] It is not difficult to imagine what seven and a half rubles per month means to a soldier. And it was only half that amount not so long ago....

[E.L.:] Yes and we only began talking about those 3-7 rubles recently. Before that, it was simply not discussed.

[Nikolay Artamonov:] And so, we have essentially turned the discussion to universal military duty. Today, as we know, there are many views, sometimes diametrically opposed, on this constitutional requirement of universal military duty. I would point out that Article 3 of the current Law on Universal Military Duty states that all men, regardless of origin, social or material situation, nationality, education, language, attitude toward religion, kind or nature of occupation or place of residence—are required to serve in the Armed Forces of the USSR.

But what do we actually have? There is no universality as such today. If you receive a higher education, you are practically free of the need to taste the soldier's life. On the other hand, religious reasons are cited for not serving. As a result the army is gradually becoming a workers' and peasants' army, which is creating perfectly understandable tensions in the society, a result of the practically undisguised social stratification of the male half of the young generation. In my opinion, alternative service will make it possible to relieve the tensions in the society, while preserving universal military duty.

Many nations have experience with it. If a person is sincere in his religious views or his world outlook preventing him from bearing arms, he devotes himself to serving the society in the most difficult and menial jobs, and the term is far longer than actual military service.

Think of the "reclamation" and "rice-field" troops and military construction workers who, in addition to the Ministry of Defense, can be subordinate to various other ministries and departments. Would it not be simpler and more honorable legally to establish all this as alternative service, for which the young people would receive proper pay and not just symbolic upkeep.

The ministries and departments do not intend to give up these troops, however.

Incidentally, an international convention permits the use of military construction workers, but only at defense projects. We use them wherever we wish.

[E.L.:] But just who knows of this convention?

[V.P.:] Otherwise, the commander would force a soldier to move furniture into his apartment or to dig a cellar in his personal garage?

[Konstantin Kharchenko:] We still have no one making a scientific study of relations between the army and the society except, perhaps, the press. But that is something else entirely. I believe that the army must not be sterile if there is a crisis in the society. In the social respect the army is structured the same as the entire society. If not more so. Living conditions, material support, housing for servicemen.... We presently have 180,000 officers and warrant officers without housing (plus 180,000 army blue- and white-collar workers). It is suggested that with the removal of troops from Czechoslovakia and Hungary, the number will grow. And the problem is not being resolved! The local soviets are unable (particularly since the enterprises were converted to economic accountability) to help the Armed forces with housing.

Reform is essential! Personally, I am surprised at the indifference of the nation's highest agency of power toward the army's problems. At both the first and second congresses the speeches of our military chiefs were fairly superficial.... Two sessions have been held and a third is starting, but the army is not on the agenda. The official requests of the deputies (they are not generals, to be sure, but they are senior chiefs) are ignored. So that the army-and-defender itself needs to be defended.

[V.P.:] Two or three years ago who would have thought that discussion of reform of the Armed Forces would move into the realm of practical action?

[E.L.:] Military production, the holy of holies, and then all of a sudden, conversion....

[Andrey Zhukov:] The society has turned to the army's problems precisely because it drew the society's attention in connection with events both inside and outside the nation. Just what is the army for? For war. That is, for countering an enemy with weapons. Both the planned training of officer cadres and the concept for using the armed forces are based on this. The army is a sharp instrument, and the instrument must be skilfully used.

In other words, the implementation of the military reform must first of all take into account the possibility of a war—that is, the external threat and its evolution. And one other thing: In my opinion, it is obvious that the army cannot—cannot and should not—transform itself. This is a function of state power.

[E.L.:] It might sometimes appear that the society perceives servicemen as people “isolated from the state.”

[V.P.:] We men have even become accustomed to dividing our biographies into pre- and post-military periods.

[Nikolay Artamonov:] The army has stagnated in its development today. The society has moved far ahead in its development and does not understand very well the army it sees when it looks back. Many people are inclined to regard it as the most conservative part of the system. Again there is the “Afghan” aftermath and the use of the Soviet Army for “internal purposes,” along with excessive efforts on the part of the command staff to protect it from “encroachments by the press.” At the same time, contrary to constitutional provisions and frequently without proper justification, army regulations have significantly limited the rights of those who have taken the oath of loyalty to the homeland. Out of habit we fail to pay any attention to this. And the officers, for example, still have no norms guaranteeing the realization of their basic constitutional rights. I refer to the right to rest, the right to work, the right to an education, and so forth. The Constitution contains a general article which indicates that servicemen enjoy full rights, of course. The article is not precise, however, and does not reflect the realities.

What about the officers and private jobs or cooperative work (on their days-off—which they do sometimes receive—and while on leave)? Why should a military doctor in a certain rural area, let us say, not provide professional consultations for the public? Even this is not allowed!

A reduction of the Armed Forces is presently underway. If we reduce them without professionalizing them, however, just what are we going to end up with?

[E.L.:] And we never have a mass-meeting without “reducing” the army. How far will this go?

[V.P.:] Or the opposite: “building it up.” This is when the so-called “patriots” meet.

[Andrey Zhukov:] There are three groups of conflicts. The first are the conflicts which have taken shape in certain areas within the army. The second group consists of conflicts within the society. The third is made up of conflicts between the army and the society. Why have tensions developed in this area? In my opinion, the society today does not have a common understanding of what kind of army it needs.

But the army needs neither deification nor abuse. It is an indispensable institution of any state.

Let us ask ourselves the question: Is there an external threat? There is an external threat, of course. The idea has become widespread in the public of late, however—and the press has added to it—that the military threat has completely disappeared.

We have begun thinking simplistically about the military threat, as though about the temperature in the room—in terms of more or less. But the “military threat” is not a simple concept. It has two main aspects: political and military. In the political sense the military threat is undeniably receding. But let us look at the other, military aspect, in which the threat is actually materialized. One is alarmed by the intensity of exercises by the NATO armed forces, during which they go through every possible development of the situation and the materialization of the military threat on the European continent. They say, of course, that NATO has a defensive doctrine. In fact, however, this is far from the case.

The society must understand exactly what kind of military threat exists. And on this matter, it seems to me, the opinion of the professionals has not yet been heard. We have primarily journalistic assessments.

Another element is the disarmament process. I am not a professional party worker but an expert in assessing the military threat. That is my profession. And I can say absolutely unequivocally that the disarmament process is proceeding with great difficulty. There is no beaten path to follow. In this area too, however, journalistic assessments prevail....

And a third factor: The army costs us dearly. Yes, the army in the USSR is the largest in the world. The numerical strength of the USSR Armed Forces is 3,990,000. The total numerical strength of the armed forces of the NATO nations is 6.5 million. The combined forces of the Warsaw Pact, if one can speak of such, is 5.3 million. That is, NATO nations have a million more men. It is senseless to seek a balance of forces by comparing only the armed forces of the USSR and the USA. For now the problem has to be approached from the standpoint of the blocs.

Then there are military outlays. It is asserted that U.S. military outlays are dropping. And they are apparently truly being cut of late. Again, however, the comparison must be made on the basis of the coalitions! On our side we have a small purse, while they have a giant one consisting of the military budgets of all the NATO nations. It is said that the USSR has the largest ratio of military outlays to gross national product (GNP). That is absolutely true. It is because our economy, as you know, is far from the strongest, and in order to maintain a balance we have to use a relatively larger portion of the GNP. Military outlays per capita are 270 rubles for us and 1,300 dollars for the USA. Not counting those of its allies.

We do not know all of the figures; we remember only those millions under arms. As a result the society thinks of our army as an organism parasitizing the nation's

tired and emaciated body. This misunderstanding can be avoided, in my view, by having the armed forces closely monitored by the developing presidential authority and the parliament.

[E.L.:] A group of military deputies of the USSR has worked out its own plan for reforming the Armed Forces. Naturally, it may not be perfect in some areas....

[V.P.:] But even these deficiencies cannot be determined without studying the document. We read in the press, however, that few people know about it. I have not heard anything about any serious discussion in the society of any sort of proposals for the future military reform.

[E.L.:] Perhaps this is being discussed in the halls of parliament?

[Vladimir Lopatin:] The draft concept for military reform was prepared by a group of officers-and-people's deputies of the USSR together with scientists. A special commission of the Subcommittee on the Armed Forces is presently preparing the final report and a draft decree of the USSR Supreme Soviet based on it. The main concept is to convert in stages to a regular, professional, volunteer army. The first version of the document has been submitted to the Ministry of Defense and the General Staff.

The main objection, of course, has to do with the cost (five times as much!) of maintaining a professional army. This is a myth, you see. They say that an officer should receive 1,200 rubles. Why not 800? And why does a professional officer not receive those 1,200 rubles today? And where are the figures for the reduction in deliveries of military equipment. Wear and breakdowns will be on an entirely different scale when it is in the hands of professionals. Funds spent on the administrative machinery and the infrastructure which now services the troops to be cut will be reduced. The finance service, the rear service, military journalism (I do not believe that its departmental affiliation is eternal), science and medicine—civilian specialists can successfully cope with all of this. Finally, there are the military educational institutions. We have slightly more than 200 of them, whereas in the USA three military colleges and one academy prepare the future general officers. Most of the regular officers come out of... civilian VUZs. Nor can we get around redistributing funds for personnel upkeep. Our 9% is a disgrace compared with the statistics for the armies of the USA and the FRG, where as much as one third of the military budget is allocated for the individual who has donned the uniform. And then the standardization of military (incidentally, its revenues are a great secret today) and civilian production, sober assessment of our losses from the super-secrecy, the return of those discharged to the national economy, and those who will not be drafted—are these not all reserves which will help make the Soviet Army fit to enter the 21st Century?!

We can add to this the dachas which the government permits the command personnel to build at a cost of 150,000 rubles. And the cost of the one built at Barvikha (I spoke of this at the 2nd Congress of People's Deputies of the USSR, and all the documents have been turned

over to the KPK [Party Control Commission] and the KNK [People's Control Committee]) was stretched out to... 627,000. The deputy minister listed the extra cost as outlays on "capital repairs."

The military reform involves subordinating the army to elected agencies of state power, total glasnost and openness and giving each person a personal interest in performing the nation's defense tasks well. It means taking into account our national historical traditions, the separation of power, as in the society as a whole, at the level of political, administrative and actual military leadership, and the participation of all public organizations on an equal basis in the monitoring, assessment and forecasting of everything occurring in the forces, up to the point of making decisions.

We are just taking the first steps today, raising the curtain on what is occurring in the Armed Forces. The next stage involves providing a precisely defined program for overcoming the profound army crisis. We are trying to do this in the USSR Supreme Soviet. And the job itself calls for creating a reliable and democratic mechanism which will make it possible to implement this reform.

It is a pity that some people continue to put the cart before the horse....

[E.L.:] It is obvious that the army and the society have common interests.

[V.P.:] If only it were obvious to those who continue counting on interring "defense" secrets behind the green gate with the red star.

[E.L.:] And those who try to resolve these problems by working up a commanding voice at the microphones at mass-meetings.

Epilogue by Aleksandr Bovin

Drops gouge out stone. It is apparent from everything that military reform is approaching.

The sporadic, uncoordinated articles in the press on army conditions received support in the creative literature and were finally elaborated on from the speaker's platform in the parliament. More and more problems—from administrative and living conditions to strategic military issues—were drawn into the focus of critical analysis.

Opponents from among the higher command personnel resisted and talked about the harmfulness of "attacks" on the army, the "subversion" of combat readiness, "antipatriotic" elements, and so forth and so on. The need to restructure the army is becoming increasingly obvious, however.

Within the framework of this restructuring, including the area of "society-army" relations, the society has the right to ask and is asking the army a number of important questions. Under what kind of conditions are millions of

our enlisted men and thousands of officers living and working? Particularly the young ones? How are they being fed? What kind of medical care are they receiving? How are they dressed? Rhetorical questions, of course....

Some people might object and ask what is the meaning of these complaints by the society against the army. It should be the other way around. The army has the right to ask the society why it permitted such a situation to develop. Why does it do so little for those called upon to defend it? These too are rhetorical questions.

In order for the society to take care of the soldier it must know how he is being taken care of, how he is trained, how he is armed. We have not known and still do not know these things, however. More precisely, we know them, but unofficially, from rumors, personal observations, the tales of those discharged into the reserve and so forth. The situation in the army is still a closed area of secrecy, inaccessible and not open to the influence of public opinion.

This is the source of the problem, the source of the army organism's chronic illnesses, lie. Can one call the army today a school of international indoctrination, a school of moral indoctrination of the youth? Why is it so tortuously difficult to combat dedovshchina? How are the individual's basic constitutional rights observed? What is the situation with respect to democracy in the army in general? I agree in advance that the specific nature of the army requires a higher level of organization, order and discipline. That is all true. But it still has to have order plus democracy. The state cannot have two political regimes: one for civilian and one for army life. At this time, however, the army can brag of neither order nor democracy.

One can assume that a transition from universal military duty to volunteer recruitment—that is, to a professional army—will make it possible to create conditions conducive to achieving a qualitatively new level of personal services, training, discipline and democracy. There are many controversial and debatable issues in the matter. So let us debate. But let us debate openly and publicly, with the involvement of broad segments of the community and declassification of the bulk of the information pertaining to these matters, and not behind the impenetrable walls of the military department.

Such should be the nature also of the discussion of the entire group of problems pertaining to the transition to the doctrine of reasonable (defense) adequacy. The military comrades frown with dissatisfaction and ask: What can come of the opinions of "nonprofessionals"?

It seems that the military comrades are not entirely correct. I do not know what masterpieces of strategic thinking are stored in their safes. Based on the published information, however, the "nonprofessionals" appear to be perfectly professional.

Let us summarize. The army is a part of the society. A very specific part, however, with its own structure and its

own developmental logic. And in order for the society always to feel that the army is near and dear, to understand its concerns and fears and promptly respond to them, we must democratize the army, remove it from the closed zone and expose it to glasnost.

People's Deputy Col Petrushenko on Events in Baku

*90UM0317B Baku BAKINSKIY RABOCHIY
in Russian 30 Jan 90 p 2*

[Interview with Col N.S. Petrushenko, people's deputy of the USSR for Leningrad's Territorial Electoral District 622, by A. Kyazimzade: "Where Is the Way Out?"]

[Text] Col N.S. Petrushenko, people's deputy of the USSR from Leningrad's Territorial Electoral District 622, began the interview for the BAKINSKIY RABOCHIY correspondent with this statement:

Without any introduction I would like to specify that I came to Baku as a private person. I came to gather information for a subsequent investigation of the tragedy which took place here on 19 and 20 January 1990, because I am confident that, just as with the well-known Tbilisi events in April of last year, a commission will be set up in the USSR Supreme Soviet. My personal impressions and information obtained immediately following the events in Azerbaijan will make it possible objectively to examine all that occurred in Baku.

[Kyazimzade] Do you intend to raise the issue of the January events in Baku at the session of the USSR Supreme Soviet which begins on 14 February?

[Petrushenko] In my opinion, this would be the wrong thing to do with respect to the deputies of the USSR from Azerbaijan. I feel that they should bring up the matter.

As a deputy, however, I believe that the matter must be raised. And if it is put forth, I will personally support it, since I feel there is no doubt whatsoever that the events which occurred in Baku demand public, democratic and thorough study and discussion.

I would very much like to see this preceded by an objective study primarily in the central press—in PRAVDA and IZVESTIYA. And the focus must be on the problem of Nagornyy Karabakh. I believe you will agree with me that this is the core around which events have developed and are developing today.

In other words, in order to completely understand the sources of today's inter-ethnic conflict in the Transcaucasus, one has to take a look at who intentionally or unintentionally fanned the flames.

M.S. Gorbachev likes to reiterate that a newspaper is a collective propagandist and organizer, and A.N. Yakovlev, member of the CPSU Central Committee, frequently states—at least [he did] at a meeting at the

Higher Komsomol School of the Komsomol Central Committee—that the mass media are only a mirror of public opinion.

I believe that in the current situation we have the right to say that the mirror has a considerable distortion, but one begins to sense the distortion only here in Baku, Stepanakert and Yerevan,—in short, when one descends onto this territory from Kazakhstan or Moscow, from any other region.

[Kyazimzade] As a professional military man, do you regard the introduction of troops into Baku the way it was done as warranted and essential?

[Petrushenko] The introduction of troops was effected in accordance with a plan worked out in advance—by military people, naturally.

It must also be pointed out that the troop command element had a legal basis for compiling the plan—the ukase passed by the Presidium of the USSR Supreme Soviet declaring an emergency situation in Baku. Whether we like it or not, the troops had a specific mission, and they executed it.

With respect to the victims of the January tragedy in Baku, we express our most sincere, most heartfelt words of compassion and sympathy. Particularly the innocent victims....

But there were other victims as well. Those suffered by the army and the militants who opposed it. The latter offered the regular forces fairly stiff resistance in a number of places.

I am talking not just about Baku but also about other regions of the Transcaucasus. Soldiers are shedding their blood today both in Azerbaijan, in Armenia....

[Kyazimzade] After all you have recently seen in Baku, in Azerbaijan, how do you assess M.S. Gorbachev's address over Central Television?

[Petrushenko] I want to point out that, like many Azerbaijanis, I did not see it, since television was off the air during those days, the central newspapers were not getting in and local ones were not being published. I shall therefore express my opinion today not about the document itself but primarily about the reaction to it.

In my view, the central press was too quick to state that the Azerbaijani people support the statement. Too quick in the sense that, it is my conviction, an absolute majority of Azerbaijan's population was simply not familiar with it due to the circumstances I have already mentioned.

After calm is restored in Baku, the document should be discussed at meetings of the labor collectives. One should assume that passions will have cooled by then, and it will be possible to thoroughly weigh the arguments and debate whether or not M.S. Gorbachev was right.

[Kyazimzade] You are no doubt aware that the awful word "refugees" is once again in circulation. This time it is being

used to refer to the Russian-speaking population of Baku and Azerbaijan—primarily the families of servicemen. I would like to hear your opinion also on this problem.

[Petrushenko] I feel that we have the right to draw conclusions based on an objective and scrupulous study, personal meetings and talks with Baku residents and the more than 150 telephone calls which we received after our well-known address on Azerbaijani radio. They reflect, generally and overall, the situation which has developed. This was confirmed also by the findings of an inter-ethnic group from the Center for the Study of Social and Psychological Problems recently set up under the Main Political Directorate of the Soviet Army and navy. The group and I studied these statements. Lt Col V. Deynikin, a military sociologist, who headed the group, reported that those who telephoned included few young people. I believe that the youth, however, always maximalist-minded, had already made their choice. But what was the choice? We need to think about that.

It is primarily the local party, soviet and, naturally, the Komsomol organizations which need to think about it, because the youth are the future of the Azerbaijani people. A great deal depends upon the choice they made and the inclination of their support. And we will feel this particularly in 5, 10, 15 years....

The second conclusion which the sociologists derived has to do with the religious factor, of course. Before coming to Baku I was already familiar with the ideas of so-called Islamic fundamentalism. I understand that this concept is extremely painful for the residents of Baku and Azerbaijan. Since it has gone into circulation, however, and has been acknowledged in the central press, we cannot ignore it.

Frankly speaking, I had not expected everything to be quite objective. And my expectations were confirmed by the vast majority of telephone calls my assistants and I received. The religious factor as such does not play a role in this situation. That is, it would not be correct to speak of any sort of Islamic fundamentalism, at least with respect to Baku.

This subject is totally absent, and since it is absent, this means that it does not trouble the people. We need to study other factors—socioeconomic and national, for example. In the religious sense it would be most correct, I would say, to call Baku a city of religious tolerance or even a city of atheists.

This definition is not only correct but is also perfectly tactful with respect to those believers who undoubtedly exist among the Baku residents. I do not believe that there are many of them, however, a fact indicated by the religious base. If I am not mistaken, there are only two functioning mosques in Baku.

The third thing which alerted me was a total absence of calls from individuals of Azerbaijani origin evicted from Armenia, even though there are around 80,000 of them in Baku. The fact that none of them contacted me indicates, in my opinion, that this significant segment of the population, who have essentially become outcasts, is—let us be frank—in great part to blame for the exacerbation of inter-ethnic relations in Baku. I feel that their problems are still not being dealt with by either the central Union departments or the local party and soviet organs. It seems to me that it is high time to think about a special state program for this, what I would call critical, mass of unfortunate people.

The next conclusion is related to the issue of nationalism (it should perhaps even be in first place). All of my personal talks, meetings and telephone calls have confirmed over and over that the ancient internationalist traditions of the Baku residents are alive and well. Despite the fact that the city, like every other region of the Transcaucasus, has been struck by a wave of nationalism from outside, it has retained its internationalist convictions.

Even if nationalist sentiments do exist somewhere, they cannot be attributed to Baku or the Baku residents. This does not mean, however, that Baku has none of what I would call the trifling vexations out of which the opinion of nationalism or internationalism is sometimes formed in an ordinary setting.

One frightened Russian-speaking refugee gave as an example a cross drawn with chalk on his apartment doors. This could be an ordinary act of foolishness, of course. In the situation of the tense inter-ethnic relations and the pogroms which have swept over the entire Transcaucasus, however, this sort of thing is naturally assessed differently and nudges people toward precipitate actions.

If a Russian were refused service in a bakery, let us say, I believe that everything could be straightened out on the spot, within a matter of minutes, by taking most decisive steps immediately. It would be necessary only to fire the guilty clerk and deny him or her the right to work in the trade system, and announce this in the newspaper.

On the other hand, I was very pleased that during numerous contacts with Baku residents I encountered only one solitary person of Azerbaijani origin who expressed the opinion that the republic must withdraw from the USSR. There would probably be no need to even mention him, since he was atypical, but this very fact shows that, at least as of today, there is no need to talk about some sort of nationalism in Baku.

I believe that with time—and the situation is already changing for the better—everything will return to normal. And if some sort of funds are collected in a benevolent account for refugees from among the Russian-speaking population, the money should probably be

used primarily to permit the Russian-speaking population voluntarily to return to Baku, to their permanent place of residence.

I was also disturbed by anti-army sentiments. Strictly speaking, the reliance on brute force, which was the case in Baku, provided sufficient grounds for this. The situation was made worse also by the lack of preparedness of the troops, by their inability to perform their specific missions in the city with its large population.

A study of public opinion has shown that there is no cause for concern about this, however. Many Baku residents reacted with understanding to the appearance of soldiers in the city. With respect to the shooting, an absolute majority of those who telephoned me associated it with the actions of the special-purpose troops.

In general, the special-purpose troops, with their particular, specific circumstances, are one of the "blank spots" in the life of the Soviet Army today. We know very little about them, and I believe that since this matter is especially disturbing to the residents of Baku, the Azerbaijani journalists should learn as much as possible about the so-called special-purpose subunits, go where they are stationed, view their life and training in person and try to report this in detail.

[Kyazimzade] What else have the telephone calls brought out?

[Petrushenko] The fact that, unfortunately, there are no practical suggestions. This shows that the people are still living in the past.... No matter how lamentable it was, however, our thoughts should be turned toward the future. How are we going to live now? Where are we to find the way out of the situation which has developed?

In my opinion, it is extremely important today to prevent the tragic events from developing into anti-Russian, anti-Soviet sentiments. And this is entirely possible.

As recently as yesterday I met with members of so-called unofficial groups from the Baltic area. I frequently communicate with them in general, because I have the habit of being in the "hot spots." Based on this meeting (and on many previous ones) I think that our Baltic comrades play a not entirely enviable role in such cases.

Just look at the reports which they are taking out of Baku today. The idea of "Who needs this restructuring?" runs through them.

Every sort of justification can be cited for this question, but then I know that in other regions—or, as my Baltic colleagues in the deputy corps like to put it, in their region of so-called developed democracy—it will be used unequivocally: Baku, they will say, is against the restructuring. In the final analysis these interviews and videotapes will set the people primarily against the Soviet Union, against the Soviet Army.

Now about the most important issue, Nagornyy Karabakh. The Baku residents today—judging, I stress, from

the telephone calls I have received—are concerned not so about the fate of Baku as about the territorial integrity of Azerbaijan. This is especially graphically manifested with respect to the NKAO [Nagornyy Karabakh Autonomous Oblast].

And that is perfectly understandable to me. Nagornyy Karabakh is both constitutionally and historically a part of Azerbaijan, Azerbaijan's jewel, and a neighboring republic is encroaching upon it.

At the same time, the current Constitution of the USSR states that the territorial integrity of any Union republic cannot be altered without its agreement. This is unequivocal and not subject to discussion.

There can be only one conclusion. The problem of Nagornyy Karabakh as the primary source of all the problems must be resolved immediately.

[Kyazimzade] Do you feel that all other means and methods of settling the situation had been exhausted before the troops were introduced into Baku?

[Petrushenko] You know, the picture was so conflicting that I am afraid to draw that conclusion. It is well enough known, however, that the military posts of the Baku Garrison were blockaded in that extreme situation and People's Front extremists had actually declared a state of emergency. I was even told that a gallows was set up in front of Azerbaijan's Communist Party Central Committee. Even if only symbolic, it encouraged certain actions.

The information which reached Moscow—or, as the Baku residents like to say, the center—was apparently based on the sum total of these facts. How correct and objective it was is another question, and I will answer it only after I visit the Presidium of the USSR Supreme Soviet, where the decision was made to declare the state of emergency in Baku.

Everyone agrees today that the troops must be withdrawn. People are equally unanimous in the opinion that the army should have been introduced on 13-14 January. This means that there were reasons for doing so. It means that the conditions had developed by that time, which have still not been eliminated.

It is my profound conviction that the decision to remove the troops should be made only after guarantees of security have established for the future.

Martial law has recently been declared twice in Baku. The first time was in the winter of 1988—that time without bloodshed. This time, unfortunately, there were casualties....

One thing is clear: There should be no third introduction of troops. And this depends entirely and totally primarily upon the Baku residents.

I leave your city firmly convinced that the working class of this proletarian, thoroughly internationalist center has not yet had its say. I believe that it will make its

statement when volunteer people's patrols have been formed to support and preserve public order and to assist the military authorities.

The curfew can only be lifted—and not just in Baku, but in all of Azerbaijan and the entire Transcaucasus, including Armenia and Nagornyy Karabakh—after the last extremist has been disarmed. This applies both to the Stinger SAM systems and hunting weapons. It is foolish for there to be armed people on the streets of communities in peacetime. This applies both to the soldier and equally to the so-called militant.

I believe that in order to set an example in the Baku situation, we need right now, while the curfew is in effect, to have a thorough investigation of every deliberate clash or pogrom which occurred on 13-14 January. We can then set the precedent that violence does not go unpunished. Those criminal elements which incited it and those corrupt circles which encouraged them to do so should suffer the punishment fixed by law.

Those forces responsible for the innocent victims of 19-20 January should also bear stringent legal responsibility. All of the necessary investigative measures should be competently conducted for this purpose.

Unfortunately, many Baku residents underestimate our legal standards. And all cases of illegal, unsanctioned use of weapons should be reported in writing, indicating the time, the place and the circumstances, to law-enforcement agencies and the military commandant's office. This is the only way to identify those specifically to blame.

The main thing for me is to express at the session of the USSR Supreme Soviet my concern about the situation which has developed in Baku, to inform it of the circumstances and causes of the exacerbation of the situation and to take part in the discussion of the draft Law on Emergency Measures. There is no legal basis whatsoever for using military force today. That is the reality—tragic and harsh, perhaps, but the reality. We must take it into account.

[Kyazimzade] What would you like to add to what has been said?

[Petrushenko] I feel that, regardless of how tragic the events in Baku were, we must publish a complete list of those who died: from the innocent women and children downed by stray bullets to the enlisted men and officers, as well as the NFA [People's Front of Azerbaijan] militants. This would help to determine the true picture, since there are many false rumors, and tensions need to be dispelled and faith in the military restored in the city. In my opinion, this information should be provided by the republic Ministry of Health and the military commandant's office.

Lt Gen Zinchenko Discusses Party Platform

90UM0312B Moscow KRASNAYA ZVEZDA
in Russian 16 Feb 90 First Edition p 1

[Interview with Lieutenant-General O.V. Zinchenko by an unidentified KRASNAYA ZVEZDA correspondent: "Democracy Without Discipline Is Unthinkable: Discussion of the Draft CPSU Central Committee Platform on the Eve of the 28th Party Congress"]

[Text] Lieutenant-General O. Zinchenko, chief of the Political Directorate of the Baltic Military District, Military Council member, and a participant in the February CPSU Central Committee Plenum, answers our correspondent's questions.

[KRASNAYA ZVEZDA] Oleg Vladimirovich, it will not be an exaggeration if we say that the entire nation awaited with high hopes the decisions of the Plenum and the draft CPSU Central Committee Platform on the eve of the 28th Party Congress. In your opinion, have these hopes been justified and have we obtained a document that will become the basis for consolidating all of the healthy forces of society around the ideas of perestroika and a decisive renewal of the Party itself?

[Zinchenko] I attended the Plenum as a non-voting member. There are many impressions and they fill a thick note pad. Right now, it is very hard to provide a comprehensive assessment and when, as they say, the tracks are still fresh and I am still at the mercy of my emotions. But one thing is already clear: In its content, the nature of its decisions, and the acuteness of its polemics, the Plenum is far from being an ordinary political event. The draft CPSU Central Committee Platform answers many questions being widely debated in society. What is the purpose of perestroika? What does the Party need to repudiate in order to keep pace with the times? What must we preserve in the ideological-political arsenal?

[KRASNAYA ZVEZDA] Primarily what positions do you want to share with us?

[Zinchenko] First of all, repudiation of indiscriminate faultfinding of the past in the Party and the State's history. Repudiation of the authoritative bureaucratic system and dogmatism and intolerance of other views and ideas. Repudiation of the primitive view toward socialist property and the Soviet Federation. We must preserve our loyalty to the creative spirit of the Marxist-Leninist world view and the socialist choice made in 1917, to the new political thinking, to our readiness to create conditions of self-realization of the spiritual and material requirements of the individual....

[KRASNAYA ZVEZDA] As a political worker, you obviously were particularly interested in the draft CPSU Central Committee Platform and the problems of renewing the Party itself, its structures, and horizontal and vertical interrelations?

[Zinchenko] Well, of course. A broad spectrum of socio-political and economic issues of primary importance are presented in the draft. Among them obviously are those that are linked with renewal of the Party itself. Almost everyone today must understand: There can be no successful perestroika without this. I am personally deeply convinced that only a renewed Party can become a guarantee of the irreversibility of the revolutionary processes, an authoritative cerebral center, and energetic organizing force. I consider the latter characteristics to be in close dialectical unity. Why do I emphasize precisely this thought? In my view, the lack of this unity is precisely characteristic of the current situation. Discussions are boiling and rallies and marches are occurring at which quite a few constructive ideas and curious opinions are expressed at times. But frequently all of them also remain the common property of so-called rally democracy, that is, we are talking about our old disease—the gap between words and deeds and the inability to extract practical lessons from our everyday and all preceding historical practical experience. At times it is both distressing and tragic. In particular, many appeals are heard to strengthen discipline, organization, and to increase responsibility. But we see very often something different in life: Dangerous symptoms of chaos and disregard for state power. This must alarm any man. I think that is precisely why the words which were heard at the Plenum that democracy without discipline is unthinkable were met with approval not only in the meeting hall.

I am convinced: A party without discipline and without responsibility for its words and decisions is not a party. Only a united, disciplined party that considers the multitude of practical approaches and opinions can preserve its political role and the role of vanguard in a renewing society.

What is specifically being proposed in the draft Central Committee Platform? First of all, it provides a modern definition of the Party as a self-governing socio-political organization, a voluntary union of like thinkers and communists, and as a Party of socialist choice. The CPSU, like other socio-political organizations and mass movements, participates in the administration of state and social affairs.... That is, the fact that political pluralism has grown is confirmed in the draft Platform. These principles are also defined in the Party itself: Democratic unity of Party ranks.

[KRASNAYA ZVEZDA] Many see the problem in the democratization of the Party itself, in the creation of this atmosphere in it so that all elements are drawn into a party-wide policy...

[Zinchenko] In this regard, the draft Platform proposes precise orientation points. The principle of democratic centralism is being interpreted in a new way. Leading party organizations that will practically decide all membership issues and formation of Party organs on an alternative basis are being allotted greater rights. I dare to be included in the conservative camp only because

there is no way I can welcome such innovations as canceling a candidate's term or admitting him into the party, let us say, in leading raykoms or Party committees without approval.

Is the party thus not depriving itself of safety mechanisms which have shielded it to a certain degree from penetration by just anybody?

This is one more factor which, to put it mildly, caused me to be perplexed—This was the demand for mandatory publication of all Plenum materials which was heard at the Plenum. I also advocate glasnost. But I think something is occurring to please populist sentiments. We cannot be ingenuous when we are resolving, let us say, tactical issues and our attitudes toward socio-political organizations. I am judging this by the situation in the Baltic. We are actually operating in multiparty conditions there. But none of the parties is rushing to completely reveal its cards...

I must emphasize that the draft CPSU Central Committee Platform on the eve of the 28th Party Congress is providing sufficiently precise orientation points even for the activities of military district political organs and party organizations. Decisive opposition to any attempts to drive a wedge between the Army and the people and infringement of servicemen's political and social rights (there are many examples in the region, let us say, the outrageous discriminatory Law on Elections adopted in Lithuania and more than 10,000 families of officers and warrant officers without apartments, etc.) are such orientation points for us. This is on one hand. But, on the other hand, it is the struggle for purity in party ranks, for a pure and honest communist character, and for affirmation of Leninist traditions of democratization and comradeship in party collectives. Each practical step is important here. This is the issue of our prestige among the people and our influence among the masses.

These are my initial perceptions. I am sure that communists will enrich the draft CPSU Central Committee Platform during party-wide discussions. The Platform most nearly approximates the requirements and realities of our vital lives.

'Danger' of Conversion, Reduction Mentioned

90UM0318A Moscow KRASNAYA ZVEZDA in Russian
21 Feb 90 First Edition p 1

[Article by KRASNAYA ZVEZDA correspondent Col A. Manushkin: "Changes Required: Report on Primary Party Organization Meeting"; first two paragraphs are correspondent's introduction; last paragraph is correspondent's conclusion]

[Text] The squadron I was about to visit for the purpose of attending its party meeting was preparing to hold a tactical air exercise. Experience taught me that I would be attending a discussion of mission assignments for the exercise, with the usual party-political "slant."

Yes, squadron problems were brought up at the meeting, but Communists invariably associated them with problems of the CPSU, Army, people, and entire country. They spoke of things that are on everyone's mind. Many thoughts that were expressed were in tune with those that were included in the materials presented at the February Plenum and in the CPSU Central Committee Draft Platform for the 28th Party Congress.

[Major V. Naydo, air transport commander, military pilot 1st class] The progress of perestroika in the Army is slow. There are many acute problems. Major changes are required to resolve them. So far there has been only discussion, but the problems are mounting.

Hence the lack of trust in the social policy as announced and the low spirits of some officers. The problem of raising the prestige of military service and strengthening the social protectiveness of servicemen and their families—that if you please is a question of party authority in the eyes of thousands of Army Communists. I believe that the CPSU Central Committee platform that will be approved by the 28th Congress should lay out the essence of military reform clearly and unambiguously.

[Major Yu. Korobkin, deputy squadron commander for political affairs, military navigator 1st class] On the one hand we are discussing democratization of party life, but on the other Army party organizations are operating on the basis of instructions that were handed down during the years of stagnation. A long time has passed since the venting of emotions at the 19th All-Union Party Conference, but in society and in private lives there are many new developments that must be taken into account.

We have already spoken here of party construction. I would like to support the comrades. In my view, it is necessary to do away with shop party organizations in air detachments and leave only party groups for crews and the primary organization in the squadron. A number of structures do nothing but complicate party work with their paper shuffling.

I am convinced that the political sections are also in need of "modernization." For example, are party commissions and political organs proper not duplicating each other? Have transfer functions in a number of cases not constituted an obstacle to effective work?

It seems to me that it is necessary to probe deeper into the thesis relative to increasing the independence of primary party organizations in the area of fundamental problems of party construction. So far we have mere general phraseology.

Now a few words about one-man command. It is a fact that it is being set up on a party basis. However, the entire country has received the message: The CPSU is moving away from a monopoly in politics and is endorsing political pluralism. If several parties appear on the scene, what kind of party policy will serve as a basis for our setting up one-man command? That question is difficult to answer. It also disturbs people. In my view,

one-man command should be set up on a definite legal basis. The law should be the major consideration. Then we will see the end of abuses, caddishness, and hazing of recruits in the Army. These points must be brought out clearly in the CPSU Central Committee platform.

[Major D. Shekhurdin, air detachment commander, military pilot 1st class, candidate for local soviet deputy] The party's slow pace in perestroyka processes undermines its authority. I would say that this is dangerous, in that antiperestroyka forces could take authority into their own hands, something that nearly happened in a number of places. Instead of holding meetings to discuss the party's authority, we all should strengthen this authority by means of closeness to people, definite deeds in combat training, improved professional training of crews, and moral purity. We should want people to say yes, such persons are real Communists, we will follow them.

We all are for perestroyka in the Army, for reforms, of course. However, we must take into account the social consequences of these reforms. Take the reduction in the Armed Forces. Many officers and warrant officers are simply doomed to suffer privation. There is similar danger in conversion. Highly qualified military specialists involved in creating aircraft systems are offered work related to the manufacture of primitive products. This is a waste of talent.

[Voice from the audience] Would it not be more advantageous to build aircraft and sell it for foreign currency? We should put our heads together on that.

[Major N. Khomenko, regimental political section deputy chief] I am of the opinion that a political worker, regardless of rank, should be held accountable to the party organization of which he is a member. He should be required to give an account of himself the same as any other party member. Conditions are pressing in on us also.

[Captain P. Solonenko, flight engineer] I have a question for Comrade Khomenko. When was the last time you visited an airfield?

[Major N. Khomenko] In the beginning of the month.

[Captain P. Solonenko] And we are speaking of closeness to people.

[Voice from the audience] People suffer because of that. We are immersed in stacks of paper.

[Captain I. Popenko, air transport deputy commander] Just look around and you will see how much unnecessary labor we have.

And another question. Why are we forgetting our traditions? Will the 28th Congress really adopt the platform without any mention of patriotic education of youth and purpose of the Armed Forces?

I personally am pleased with the idea that the CPSU is not laying claim to preference and consolidation of its status in the USSR Constitution. This is a substantial

step toward democratization of society. There is talk of a second major decision that will make it possible in the future to prevent installing rigid hierarchical discipline in the party. I am speaking of a review of the principle of democratic centralism as presently interpreted. I believe that in the near future we will be electing secretaries of party committees and bureaus by secret ballot. In my view, these substantial changes should be started with the election of delegates to the 28th Congress of the CPSU, on a mandatory alternative basis.

[Correspondent's comments] A number of other suggestions, opinions, and judgements were offered at the meeting. Some are debatable, to be sure. Nevertheless, people's sincerity cannot be doubted. Such sincerity and openness are also achievements attributable to perestroyka in the Armed Forces. Communists are anxious over the future of the party, the dynamics of renewal processes; they are seeking solutions to difficult situations and are prepared to lend perestroyka a hand. That must be the main thing.

Resolution of First Army-Wide Komsomol Soviet Plenum

*90UM0318B Moscow KRASNAYA ZVEZDA
in Russian 21 Feb 90 First Edition p 2*

[Unattributed report: "Regaining of Authority"; first two paragraphs are KRASNAYA ZVEZDA introduction]

[Text] As we have already reported, the First Plenum of Army-Wide Soviet of Komsomol Organizations was held in Moscow.

Adopted as the policy document was the resolution "The Present Situation and Platform of USSR Armed Forces Delegates to the 21st VLKSM Congress."

The Plenum of the Army-Wide Soviet of Komsomol Organizations, in its assessment of the results of Komsomol-wide discussion of pre-election issues and the situation that has arisen in Komsomol organizations of the Army and Navy, has arrived at the opinion that the All-Union Lenin Young Communist League has entered an extremely responsible phase of its development.

The problem as it exists may be stated as follows: Either the Komsomol will take advantage of its historic opportunity to restore its authority among youth, or, failing to overcome the critical situation within its ranks, it will cease to exist as an effective social force.

On the one hand, there is consolidation of positive forces that support the efforts exerted by the Central Committee of the VLKSM [All-Union Lenin Young Communist League] to renew the ideological and organizational platform of the Lenin Komsomol.

On the other hand, attempts are being made to impose limitations in the form of ethnic and territorial formations, dissolve the Komsomol, alienate it from the party, and change the communist nature of the organization.

All this wields a direct influence on the situation in youth military collectives and affects the interests of the Army Komsomol.

Along with definite growth in socio-political activity of Army and Navy youth, expansion of democratization of intraleague life of VLKSM organizations, and intensification of their influence on the life and activity of military collectives, it has not been possible to overcome the fruitless formalism and passivity in the work of a considerable number of Komsomol organizations or their alienation from definite interests and problems of youth existing in military units and subunits.

It must be admitted that past Komsomol reporting and election meetings and conferences held in Army and Navy units have brought out dissatisfaction with the practical results relative to effecting perestroyka in VLKSM activity, including Komsomol organizations of the Army and Navy.

The plenum participants are of the opinion that the 21st VLKSM Congress is destined to chart definite paths to bring the VLKSM out of the crisis and renew practical activity.

In this regard, the need has arisen to define the platform of the USSR Armed Forces delegates to the forthcoming Komsomol Congress.

This platform should rest on a vision of the All-Union Lenin Young Communist League as a voluntary and independent socio-political organization, the purpose of which is to assist the young man in his ideological, moral, and social development, uniting youth to enable them to participate in the creation of a democratic socialist society as a necessary stage in a communist formation.

The Komsomol should function not merely on the basis of existing statutes of the USSR Constitution, but rather on the strength of its authority in the eyes of the young generation.

The plenum recognizes as a guiding principle of construction of the Lenin Komsomol the continuation of a unified all-union international organization incorporating a democratic structure that permits of optimum combination of the interests of any one VLKSM member or particular organization on the one hand, and of the league as a whole on the other.

Deserving of support in this regard as an outward expression of the effort to develop the youth movement in the country is the desire to unify the Komsomol organizations of Russia and create in the republic authorized Komsomol leadership organs.

At this turning point in development of the Soviet country, the Komsomol's fate is inseparably linked with the CPSU and its ideological platform, with the course toward profound changes in society.

The renewed VLKSM is assuming an increasing role, and the Army and Navy Komsomol is undergoing a qualitative change.

As a unified and integral organization and an essential part of the VLKSM, the Komsomol of the USSR Armed Forces should be granted the status of a republic league of youth.

The creation of a well-thought-out internal structure of leadership organs—soviets of Komsomol organizations—will effect a considerable increase in number of young servicemen participating in the resolution of problems that affect the interests of Komsomol members and will provide them with the opportunity of experiencing their first lessons in democratic affairs management in their youth organization.

At the same time, the course toward democratization and independence should not lead to setting the Komsomol in opposition to political organs and political organizations or alienation from the latter.

The plenum participants approve and support the CPSU Central Committee platform for the 28th Party Congress.

The plenum participants have come out in favor of VLKSM organizations building their interrelationships with CPSU organizations on the basis of a close ideological bond, political support and comradely criticism of each other, participation by Communists in Komsomol leadership organizations, and joint actions.

With their assistance, the Army and Navy Komsomol is facing the task of assuming in the social structures of military collectives a new position, with focus on the following:

- transformation of the Armed Forces komsomol into a champion of youth policy for expressing the interests and protecting the rights of youth;
- attaining political leadership under conditions of wide pluralism of youth movements;
- active participation in the country's political life by participating in the election and work of organs of authority;
- defining its area of responsibility in the political, military, and moral education of Soviet servicemen.

However, in the resolution of fundamental problems of restructuring our league, we must not permit waning of interest in practical affairs and cares inherent in youth collectives.

The development of a system of priorities of work should be relegated to the status of an urgent task.

Under existing conditions, these priorities, in the opinion of the plenum participants, should include:

- relative to assuring quality parameters in combat training, professional mastery on the part of servicemen: encouraging young men to develop a continuing interest in military service and a spirit of competitiveness backed up by a system of material and moral incentives available to Komsomol organizations;

- in the ideological area: origination of new and practicable approaches to the study and protection of Leninist ideological and theoretical heritage, theory of socialist construction, and history of our state, the CPSU, and Komsomol, on a basis of wide discussion and open dialogue;
- in the area of interethnic relations: education of Komsomol members in the spirit of mutual trust and tolerance of national traditions and customs, nonacceptance of nationalistic views and appeals, and rejection of attempts to foment interethnic conflicts in the Army environment;
- in the area of strengthening military discipline: creation of a positive moral climate in youth military collectives; combatting undesirable phenomena and practices that have taken root in the youth environment; exertion of sustained efforts to establish new traditions that would promote increase in authority and prestige of military service and protect the honor and dignity of young servicemen;
- in the area of intraleague work: promoting in practice the superior role of primary organizations on the basis of expanding their rights and independence, strengthening their material and financial base, and bringing the structure of VLKSM organizations in line with the kinds of tasks present in units and subunits;
- in the social area: protection of the rights and interests of Army youth.

The work style practiced by Komsomol cadres and aktivs should undergo major changes. Komsomol work departments and sections, which function as working apparatus for soviets of Komsomol organizations, definitely must discard inspection functions, which are foreign to them, and take on the nature of coordinating centers with total involvement in organizational work.

The plenum participants, bearing in mind that the decisions made at the 21st VLKSM Congress will be formulated on the basis of the positions of its delegates, consider it necessary to adhere to the platform as stated and intend to uphold it consistently in the name of Komsomol members of the USSR Armed Forces.

Stavropol Protests Reserve Call-Up for Azerbaijan

90UM0318C Moscow *RABOCHAYA TRIBUNA*
in Russian 22 Feb 90 p 4

[Article by *RABOCHAYA TRIBUNA* correspondent Boris Prokhorov in the column: "Follow-Up to an Article": "A Cover-Up?"; first paragraph is *RABOCHAYA TRIBUNA* introduction]

[Text] "Who issued the order?" That was the question asked by our newspaper in its 28 January article on the emergency mobilization of reservists in Rostov Oblast. We did not receive a reply. On the other hand, we did receive a great number of comments, especially from Stavropol.

Stavropol residents are quiet and easygoing. It takes something quite out of the ordinary to upset them all at the same time. This is what happened late at night on the 15th

of January, when thousands of apartments received a phone call from the military commissariat, with a voice saying: "You will receive a call-up notice. As for now, you have 10 minutes to prepare for mobilization!" The call-up was for men of all ages, for family men and bachelors. There were no exceptions, regardless of circumstances.

Later the local newspaper was to take note of the high degree of conscientiousness of the reserve soldiers and remark that the mobilization was smooth and well organized, and that it was accomplished in a short period of time. That is generally true, but that is not the entire story. The kray residents displayed not only a high degree of conscientiousness, but also just as much social activity. They evidently had already come to believe in glasnost, democracy, and a person's rights. All of a sudden, in the middle of the night, they are subjected to this high-handed treatment. What would one think happened? Mothers, sisters, wives came to the same conclusion: war. They began to wail and ran to the military commissariats, where they learned that their worst fears were justified. The men were to be sent to Transcaucasia for an indefinite period of time. That meant that they were going off to war.

Spontaneous meetings were called in almost every rayon center: in Trunovskiy, Grachevskiy, Aleksandrovskiy, Novoaleksandrovskiy, Blagodarnenskiy, and Shpakovskiy rayons, and in the cities of Svetlograd and Nevinnomyssk.

The official press provided restrained and very proper coverage, while ignoring controversial aspects. On the other hand, the nonconformists came out in full force. The fact is that they were not very active before these events occurred. The name alone—"For the People's Front of Stavropol"—of the movement reflected a poor following and uncertainty of position. The nonconformists could find nothing definite to criticize: The social problems in the kray are in relatively good shape; there is no building for prestige; perestroika processes are taking place in the open for all to see. All of a sudden their golden opportunity came along. One must give credit where credit is due: They took instant advantage of the situation. They knew no restraint; with passions running hot during meetings any lie they told would be snapped up by the crowd with a roar. "Our neighbors in Krasnodar got together and tore up their call-up notices; we are the only ones being fooled." "Veterans of Afghanistan are declaring: 'No more Afghanistans!'" "Let the entire kray committee go into retirement; all power to the people."

Also surfacing at the spontaneous meetings was another sore point, one which for a long time was carefully kept under wraps in official circles. The kray center and resort towns of the Caucasian Mineralnye Vody are being taken over by persons coming from Transcaucasia. We are not speaking of refugees or of people who have suffered because of the earthquake, toward whom

Stavropol residents acted with compassion and rendered all kinds of assistance. We are thinking of bigwigs of the shadow economy who pay tremendous sums of money to erect three-story buildings costing 100,000 to 200,000. They are clever dealers who are seekers of the easy resort ruble; there are many of them in Kislovodsk, Yessentuki, and Pyatigorsk. At commercial points, meeting places, cooperatives, and wherever there are large accumulations of people, they set up clans that are linked by mutual guarantee. This has an unfavorable effect on the native population. All of sudden, like a bolt from the blue, comes the news that the Transcaucasians have managed to become free of military responsibility, with only Russian boys being called up to face flying bullets. "They are robbing us, and we are sending our sons to cover for them."

No, positive forces have not given evil instincts free rein. Small sprouts of restraint and wisdom are pushing through the rumors and conjecture, the provocations and extremism. This was especially noticeable in the women's movement. Winder Galina Mikhaylovna Semenova of the Elektroavtomatika plant, planning institute planner Valentina Ivanovna Kotova, and engineer Larisa Mikhaylovna Belik said to me:

"We are not leaders nor politicians. We are mothers. We have not slept for four days. We have appealed in writing to the women of Armenia and Azerbaijan; we have sent telegrams to the Presidium and to the Central Committee; we were prepared to appeal to God Himself. We were so insulted we cried when loud men with glassy eyes told us: 'You are raising a fuss over nothing! You have sold out to bureaucrats!' Can mothers really be bribed? Those people were merely speculating with our pain and alarm. All of a sudden there appears at a meeting a certain Drachev, wearing a heavy overcoat to make it appear that he was 'from here.' He said, 'They are already killing your sons!' We panicked. Later it developed that the clown had never been there. He was made tipsy and pushed onto the floor to say this by some instigators.

More than 60 party apparatus workers went to Armenia as volunteers. One of them was CPSU Kray Committee Secretary Ivan Ivanovich Nikishin. In a conversation we had after his return, he said:

"I have only three things to say. First, I saw for myself how necessary it was for the government to take decisive measures to extinguish the fire in Transcaucasia. Second, the call-up of the reservists definitely was a mistake. The party kray committee acting jointly with the kray public did everything it could to rectify it. Third, the high-handed actions on the part of the military department undermined the authority of local soviet and party organs."

Yes, the consequences of that are still being felt. Not a single pre-election meeting goes by without voters asking the questions: Why did local authorities bow to the Moscow generals? What has been done to prevent reoccurrence of such a thing?

Little or nothing, I am afraid. Two deputies in the military commissariat with whom I spoke were convinced that they acted properly, in accordance with the order and the law. But what about the undue hurry, rudeness, officialism, and overly military treatment of the civilian populace?

Colonel General L. Shustko, commander of the North Caucasus Military District, also tried to put a good face on the matter. In a statement he read on the radio, he restricted himself to saying that the reservists "contributed to the rapid deployment of the required number of troops in Transcaucasia, thus accomplishing the mission."

Laugh, and the world laughs with you; weep, and you weep alone. Until open analysis of mistakes becomes the rule, we will continue to suffer from nameless and irresponsible orders. So that we will receive a reply to the question: Who issued the order? Or will there be another cover-up?

The trouble is that this kind of cover-up does nothing but play into the hands of anti-perestroika forces.

Comments On Military Pollution Of Georgia's Environment

90UM0500B Tbilisi ZARYA VOSTOKA in Russian
31 Mar 90 p 3

[Letter by Levan Sanikidze, chairman of the Georgian Demographic Society to Col-Gen V. Patrikeyev, Troop Commander of the Red Banner Transcaucasus Military District: "Letters To The Editor"]

[Excerpt] The editors have received letters whose authors address themselves to Colonel-General V. Patrikeyev, Troop Commander of the Red Banner Transcaucasus Military District.

Dear Valeriy Anisimovich!

The Transcaucasus region holds third place in the USSR, after the Donetsk-Dnepr and Ural economic regions, in terms of overall anthropogenic impact on the environment and level of degradation of the natural environment.

Two of the republic's cities—Rustavi and Zestafoni—are among the 68 Soviet cities that the USSR State Committee for Hydrometeorology has identified as industrial centers with the most severe air pollution.

Intensifying processes of degradation of natural systems have been noted in Georgia, as have growing levels of pollution of the atmosphere, river arteries, and topsoil, factors that are restricting the natural habitat of flora and fauna, increasing the incidence of disease and death rate

among the population, having a negative effect on quantitative and qualitative indices for agricultural production, and detracting from the quality of recreational resources, in particular the Black Sea coastline.

Ecological problems in various regions are taking on political overtones and becoming an additional cause of confrontation not only between the republics and center but also with the military establishment. This is borne out by numerous events in both the country as a whole and the Georgian SSR.

In light of democratization and perestroika in the country, and at a time when the political and economic sovereignty of the republics is deemed an essential factor for the further development and renewal of our society, as well as at a time when our military doctrine is being transformed with the aim of limiting and reducing the size of the Armed Forces, the Red Banner Transcaucasus Military District could, without any particular damage to the USSR's defense capability, dismantle (or relocate) a number of military installations in Georgia's resort areas. This would make it possible to significantly expand recreational facilities for children gasping for breath in the urban agglomerations as a result of air pollution.

An initiative on the part of the Red Banner Transcaucasus Military District to evaluate the impact of military installations (test ranges, radar stations, and others) on the environment and to improve the ecological situation in the areas in which military installations operate, as well as to reduce their number, would meet with due understanding on the part of the republic's people.

The Georgian Demographic Society would appreciate your making your views known on this problem.

Meeting Of GlavPUR Party Organization Secretaries Held

*90UM0500A Moscow KRASNAYA ZVEZDA in Russian
14 Apr 90 First Edition p 2*

[Article by Colonel A. Bystrov: "Reports And Elections Under Way: Consulting With Secretaries"]

[Text] A meeting of party organization secretaries representing all branches and arms of the Armed Forces was held in the Soviet Army and Navy Main Political Directorate's party-organizational work directorate. The meeting discussed preparations for and the holding of report-and-elections meetings and the upcoming party conferences in army and navy party organizations.

Colonels L. Poroshinskiy and A. Antipov, Captain First Rank A. Pikhtovnikov, Major V. Razikov, Captain V. Gorelov, and others who participated in the meeting expressed the unanimous view that Communists and all army and navy personnel are showing keen interest in the report-and-election campaign in party organizations and are pinning great hopes on it with respect to the strengthening of the party's vanguard role in perestroika, the cohesion of party ranks, the forging of

common views and positions in the course of preparations for the 28th CPSU Congress, and the invigoration of Army and Navy party organizations' work.

It was observed that the first report-and-election meetings in primary party organizations have generally been marked by a high degree of activism and by concerned discussion of the state of affairs, and that they have outlined specific prospects for party organizations' work. During the meetings, many serious proposals have been submitted for the draft Central Committee Platform and CPSU Statutes. Candidates for delegates to the 28th CPSU Congress are being discussed in a comprehensive and businesslike fashion.

The meetings have offered much bold and constructive criticism, including criticism regarding matters of freeing internal party work of formalism and bureaucratic methods. Communists are proposing ways of democratizing Party work and of gearing it toward the needs of party members and the problems of concern to military collectives.

At the same time, the party organization secretaries observed that some report-and-election party meetings are being held according to the old scenario, without regard for the distinctive features of the current moment. Not all meetings are providing a thorough analysis of keynote reports and the draft CPSU Platform and Statutes. Little is being said at meetings about experience at work with people and about their feelings and concerns. Some meetings have been characterized by excessive organization and prepared by a narrow circle of communists. Not all meetings have done a good job of reporting on efforts to address previous criticisms and to implement previous proposals.

Major General A. Gorbachev, chief of the Main Political Directorate party-organizational work directorate, summed up the meeting's results.

Soviet Soldiers' Letters Express Views, Problems Of Profession

Latvian Attacked on Home Soil

*90UM0503A Moscow KRASNAYA ZVEZDA in Russian
15 Apr 90 First Edition p 2*

[Letter by Private I Seymushkin: "Soldiers' Letters: "I Don't Recognize You, Ludze"]

[Text] Before serving in the army, I lived in Ludzenskiy Rayon. It's in eastern Latvia, not far from the point where three republics meet—Russia, Latvia, and Belorussia. I grew up and started working in the small village [khutor] of Seyli. And I go back there, to see my mother, Regina Bronislavovna. My name is Ivan Seymushkin. Don't be surprised, it doesn't sound very Latvian. Everyone has long intermingled there—Russians, Belorussians, and Latvians. We've worked together, lived on the same land, and become interrelated.

Our village [khutor] is small—just three families. We grow wheat. I'm a tractor driver. When I lived at home, before I was called up for the army, the wave of noisy rallies simply didn't reach us. After all, we had to work the land from dawn till dusk. There was no time for holding rallies, nor any need to.

I was called up for service, and there I learned about the idea of the republic's seceding and of the refusal of some of my fellow countrymen to serve in the Soviet Army.

I've served well. I was rewarded with leave. I went home, and everything seemed just as it had always been. I met and talked with my friends. No one from Ludzenskiy Rayon has refused to serve in the army or deserted. I breathed easier: I was right, it turned out.

The time came to return to my military unit. I said goodbye to my mother and neighbors. In Ludze, while I was waiting for the Riga-Moscow train, four fellows came up to me. They were well fed and stylishly dressed—from the local elite.

"What are occupation troops doing here?"

When they found out that I was Latvian, they became even more enraged:

"Why are you wearing a uniform? How could you, a Latvian, dare to put on the uniform of the occupation army?"

The train pulled up, but they wouldn't let me go. They demanded that I stay. They promised to hide me for a while, until Latvia secedes from the USSR. "We'll hide you, and they won't find you. And when we become free, you'll be a hero."

They kept trying to persuade me, they threatened me, and forcibly pushed me away from the train car. And when I refused to join the popular front, one of them hit me. There were four of them and one of me. They beat me until the train left. When I fell, they just kept on beating me. Those well-groomed snakes. They took everything—my documents, the money mother had given me for the trip. And then they ran away. "Liberators."

I had to return home. On the way I stopped by the military commissariat and reported what had happened. They gave me an official affidavit in place of my military registration card. I recuperated at home and cleaned up my uniform. And I went to Ludze again. In my uniform.

I traveled through my native land. Through Soviet land in the uniform of a Soviet soldier. And I wouldn't take it off for anything.

I am convinced that I'd never find among those "liberators" people like Andras Yatchenko, Andras Bulis, and other Latvians from my native region. We studied together at an agricultural school and were friends with both Russians and Belorussians. And we never harbored any evil thoughts.

I don't know how to hold rallies, I'm more accustomed to driving a tractor. But I'm going to fight against babbling idiots.

Army Life Thought Worthwhile

90UM0503B Moscow KRASNAYA ZVEZDA
in Russian 15 Apr 90 First Edition p 2

[Letter by Junior Sergeant N. Zakipnyy, Kiev Military District: "Soldiers' Letters": "Things Aren't Hard For Us"]

[Text] I was called up into the army at the age of 25, as a person who was already fairly mature. I graduated from a teaching institute, I have a wife, and we're raising a son. I went into the army with a very skeptical attitude: What can the service do for me?

But when I held an assault rifle in my hands and fell into line, when, exhausted after field drills, I leaned against the back of a comrade to rest, I felt like a man, like a soldier, like a comrade to people I had never known before, like Major V. Yakimenko and Sergeants O. Yesaulenko, A. Adamenko, and S. Ponomarev.

To be honest, we held shovels, axes, and brooms no less often than assault rifles. And that's when I realized this: No, things aren't hard for us in the army, things are hard for the army itself. After all, it was not by some commander's whim or for the sake of our own enthusiasm for construction specialties that we picked up various tools. Rather, it was a question of who else was going to do the construction and repair work. Construction workers are in short supply even on major projects.

I only served one year, but I'm glad that I wore shoulder boards on my shoulders. I'm convinced that the things I learned will come in handy teaching school.

Rigorous Routine Omits Combat Training

90UM0503C Moscow KRASNAYA ZVEZDA
in Russian 15 Apr 90 First Edition p 2

["Soldiers' Letters": "As Guards"]

[Text] We've noticed how the newspaper has begun raising questions about our life as soldiers more often. And so we decided to write about the things that trouble soldiers in reduced-personnel units. As is common knowledge, such units have few personnel but are up to their ears in work.

We don't have calisthenics periods; instead, we clean up the grounds. We maintain our equipment, sweep, prepare for duty detail, do our work, and then start all over. Day after day. Like running in circles. What bothers us most is that we carry our assault rifles every day but not everyone even gets to fire his rifle in his entire term of

service. Our understanding of tactics is little more than what we knew when we played army as kids.

Generally speaking, there's no combat training to speak of. We serve more as guards and groundskeepers than as soldiers. And this despite the fact that the officers draw up drill schedules that include firing practice, tactics, and protection from weapons of mass destruction. And they write summaries [konspekty]. But it all stays on paper. There's no time for those drills.

And another thing. Despite the fact that we spend all our time serving as guards and maintaining equipment, our regiment somehow manages to be considered an exemplary one. Several times a month—or even several times a week—we have these rush jobs to do day and night. Carpet runners are taken out of the storehouse, new towels are hung on the headboards of our beds, and clean white pillow cases are issued. And after the superiors have seen it, it's all folded back up and stored away until the next time. Why all this window dressing? Our barracks is like a museum. We're not allowed to enter it with our boots on; we can only wear slippers. At worst we have to go barefoot. The floor has been polished to the point where it shines like a mirror. Our boots stay in the entranceway. And when an alarm sounds, we all run around looking for our boots.

This is not how we imagined rigorous army life as civilians. When we hear talk of perestroyka, we think it should touch on these aspects of army service too.

—Guards Junior Sergeant M. Usov and Guards Privates I. Misenko, R. Alkhazurov, O. Muzhilo, V. Vasilishin, and V. Vasilyev, Carpathian Military District.

Local Mess Food Needs Improving

90UN0503D Moscow KRASNAYA ZVEZDA in Russian
15 Apr 90 First Edition p 2

[Letter by Cadet A. Mukhametshin, Volga-Ural Military District: "Soldiers' Letters": "Oh That Grub Of Ours!"]

[Text] I never thought I'd go into the mess hall as if on the attack, that I'd try to "take" a piece of bread from my comrades. But like it or not, that's what I'm having to do, since on the table where 10 of us sit they put two loaves of bread instead of the three they're supposed to, and forget to cut the loaves they do give us into portions. They constantly fail to put the first and second courses on our mess kettles, and give us only a half a cup of tea or kompot.

I don't even want to talk about the quality of the food. Sometimes you don't know what you're eating—kasha or potatoes?

The teashop is an expensive pleasure, and not every cadet can afford it. This is why we have repeatedly asked our commander to put the mess hall in order. But the effect is zero. At a recent Young Communist League meeting, Cadet I. Kostyagin raised this question again. And we got another promise that the matter would be looked into and measures taken. But once again, nothing ever came of the promises.

The thing that can't help but surprise us is that the regiment commander, Captain V. Blinov, food service chief, and Lieutenant V. Borisov, mess hall chief, often look in on our mess hall. Sometimes they even sample the food. Can they possibly like it?

I used to think that all soldiers' mess halls were the same. But then I visited the mess hall of a neighboring unit and was surprised to see that it's possible to cook tasty dishes with the same food products, and not to cut the soldiers' rations.

These are the unhappy thoughts one has after "eating light" in our mess hall.

Military Parity and Asymmetries

90UM0306A Moscow *KOMMUNIST*
VOORUZHENNYKH SIL in Russian No 22, Nov 1989
(signed to press 14 Nov 89) pp 80-86

[Article, published under the heading "Abroad," by Maj Gen (Res) Yu. Lebedev and Candidate of Historical Sciences A. Podberezkin: "Military Parity and Asymmetries"]

[Text] [Introduction] "As is known, the USSR and our allies have made foreign policy initiatives to reduce the military threat in Europe, proceeding from the principle of equal security and the interests of both parties. Judging from certain data published in the press, such concepts as equal security, military parity and asymmetries in the armed services of both sides has been interpreted often by the West in its own manner at the discussion table, clearly endeavoring to extract military strategic gains. Could you not tell in more detail about this?"

"S. Gamayev, Gorkiy."

The answer to the reader's question, at the request of the Editorial Department of International Life has been prepared by the Political Reviewer of APN [Press Agency Novosti], Maj Gen (Res) Yu. Lebedev and the Senior Science Associate at the Diplomatic Academy of the USSR Ministry of Foreign Affairs, Candidate of Historical Sciences, A. Podberezkin. [End of Introduction]

The major unilateral measures initiated by the USSR and its allies to reduce the armed forces have evoked approval, on the one hand, among some in the West and, no matter how strange it may seem, a negative response carefully concealed behind apparent concern, on the other.

At first glance, this is difficult to explain: how is it that in recent years, after caveats on the "predominant superiority of the Warsaw Pact in conventional (that is, in the area of conventional weapons) might," there have inevitably followed requests and demands for unilateral measures on our side. And when these measures were forthcoming, a strange reaction appeared among a number of the Western politicians and military. What stood behind it?

Let us look at the unilateral initiatives advanced by the Warsaw Pact member nations in the area of conventional armaments in a broader context and through the prism of the evolution of military doctrines in both military political alliances.

The unilateral steps taken by the Warsaw Pact nations aimed at reducing conventional armed forces and weapons are a natural consequence of their general political course of giving military doctrine an exclusive defensive nature. This was stated for the first time at the Berlin Session of the Political Consultative Committee (PCC) of the Warsaw Pact Member States in May 1987. These were followed by practical steps. Let us recall these.

At the end of last year, in the speech of M.S. Gorbachev before the United Nations, major unilateral steps were announced by the USSR in the area of reducing conventional weapons. A material implementation had commenced for the political obligation assumed in Berlin. Thus, unilateral measures are a natural step on the path to giving military doctrine an exclusively defensive nature on the basis of the new political thinking. For our nation this was the logical extension of the course of the 27th CPSU Congress and the 19th All-Union Party Conference, a course based on the principles of the primacy of political means over military-technical and the carrying out of military development on the basis of reasonable sufficiency for both sides.

It is important to determine just what is the ultimate goal of the measures carried out by the Warsaw Pact nations in the area of restructuring their armed forces on the principles of the new military doctrine. This aim was clearly formulated in a number of major documents, including the decisions of the PCC of the Warsaw Pact member states in Budapest (1986), Berlin (1987) and Warsaw (1988). This consists in the fact that neither of the alliances—neither NATO nor the Warsaw Pact—in securely ensuring its defense, has the means for a surprise attack, for initiating offensive operations. The achieving of this goal is possible, thus, only in an instance when both military-political alliances are carrying out military technical measures which would eliminate the very material possibility of a surprise attack.

As a result of the mutual major reductions in the armed forces, parity would be maintained between NATO and the Warsaw Pact, but on a level now of reasonable and dependable sufficiency for defense. Due to the fact that a number of disputes has arisen over the concepts of "parity" (equality) and "reasonable sufficiency," we must take this up in more detail.

Parity is a complex qualitative characteristic reflecting the military capabilities of the alliances as a whole and not the individual categories, types or systems of weapons. At present, both in the West and in the East, among the sober-thinking specialists it is usually considered that in the area of conventional weapons there is an approximate equality (parity) in the absence of the possibility of achieving overwhelming advantages in the event of the outbreak of a war.

In our view, it is impossible to agree with the assertion voiced in the press by the Soviet scientist A. Arbatov that a desire for parity clearly implies the desire to have approximately the same forces and hence the capabilities as the enemy (NOVOYE VREMYA, No 6, 1988, p 20). Why is such an interpretation incorrect?

In the first place, because it is impossible to put an equals sign between the quantity of weapons and the capabilities of the armed forces as here the dependence is much more complex. Secondly, such an oversimplified understanding of parity discredits it, reducing it to the demand of "having the same forces" as the potential enemy. In

the latter instance, it is a matter of the actual imitating of its actions and boosting military potential after any, even the most absurd initiative in the arms race. Certainly here we have the stage which we have gone through and which we have been able to abandon!

Three Directions

The ultimate aim in the evolution of socialism's military doctrine is a parity based on the principle of reasonable sufficiency for defense and not on a principle of over-arming. But the achieving of this depends not only upon the will and actions of the socialist countries but also upon NATO policy. When we speak about defensive sufficiency of the armed forces, we have in mind that this is a fluid concept. Its filling out depends upon how the Western side is to behave.

The giving to military doctrines an exclusively defensive nature includes, in our view, three directions. These are: a radical quantitative reduction in the armed forces to the limits of reasonable sufficiency; restricting the production of non-nuclear potentials; giving a defensive nature to the structures of the armed forces of both alliances and to their deployment.

It has been precisely in these three directions that steps have been initiated by the USSR and its allies recently. In the first area there are plans for large-scale cutbacks in the armed forces and weapons. The size of the USSR Armed Forces will be reduced over a period of 2 years by 500,000 men, by 10,000 tanks, by 8,500 artillery systems as well as by 800 aircraft. Our allies are carrying out reductions totaling 5,600 men, 1,900 tanks, 630 artillery systems, 130 combat aircraft and other weapons.

Unilateral steps have also been taken in the second direction. The Soviet military budget will be reduced by 14.2 percent (by 15 percent in the other Warsaw Pact member nations as an average and by 19.5 percent in the production of weapons and military equipment. The military enterprises are to be converted (respecialized for producing peacetime products).

In the third area over a period of 2 years, the dispositions of our Armed Forces will be changed, and in particular, six tank divisions will be withdrawn from the GDR, CSSR and Hungary and the offensive formations and units such as assault-landing, assault-crossing and others will be removed from the troops. The remaining divisions will be reconstituted with a planned reduction in tanks (from 20 to 40 percent) and an increase in antitank weapons. The purpose of such a reorganization is to give the Soviet divisions an unambiguously defensive structure.

Thus, after May 1987, when the new defensive doctrine of the Warsaw Pact member nations was proclaimed, concrete steps have been taken. They show that the USSR and its allies are ready to do their part so that Europe has only armed forces which are sufficient for defense.

Subsequently, in the event of achieving mutual agreement on the elimination of the asymmetries in the

Vienna talks, the corresponding reductions could be made by both sides. The number of troops of each military-political alliance would be reduced by 500,000 men. As a result, the material basis would be significantly reduced for waging war in Europe. This would be a major step along the path of giving an exclusively defensive nature to the military doctrines of NATO and the Warsaw Pact.

This generally has been our plan. But we in no way assert that it is absolutely perfect. We are willing to listen to and take into account the desires of the other side on reducing the level of military confrontation. This would be down to a level guaranteeing a reliable defense and not permit the implementing of offensive actions.

Clearly any reductions, like any talks, require a knowledge of the overall picture of the balance of forces. This is why even in March 1988, the Warsaw Pact countries proposed an exchange of information on the armed forces and conventional weapons of NATO and the Warsaw Pact in Europe. The NATO states did not provide a positive response to this proposal and this inevitably leads one to the thought of their disinterest in advancing the question in this direction. When the question comes up of the reasons for such a refusal, the attempt was made to assert that we cannot be trusted.

But certainly the Warsaw Pact proposed that there be an immediate verification of the submitted data! In reply there was silence. On the other hand, there has been no lack of various semiofficial and unofficial biased data following the old formulas. These in every possible way exaggerate the advantages of the opposite side but no notice is made of one's own.

In order to overcome the existing discrepancies and put the facts on a solid basis, the Warsaw Pact defense ministers committee decided to publish the figures both on the personnel and the quantity of the main types of weapons of both sides. It should be emphasized that these data were not only carefully checked out, analyzed and rechecked, but also provide a notion of the complete, full balance of forces between NATO and the Warsaw Pact. They serve as a serious basis for a quantitative analysis of the balance of forces considering all components.

Tanks or Aircraft?

Between the military potentials of NATO and the Warsaw Pact there is a multiplicity of asymmetries favoring either one or the other side. While in terms of the size of the armed forces as a whole, the ratio is approximately 1:1, within this equality the situation is somewhat different. For NATO the advantage is in the number of ground forces, in the Air Force and Navy, army aviation and in airborne troops, while for the Warsaw Pact, it lies in the number of air defense troops. As a whole, however, an overall equality is maintained in

the number of the armed forces of both alliances: 3,573,100 for the Warsaw Pact nations and 3,660,200 for the NATO nations.

The situation is more complicated in the ratio of the main armed services of NATO and the Warsaw Pact. This is understandable. Certainly here there are different historical traditions, strategic, operational-tactical views, geographic conditions, capabilities for military development and other factors which up to the present have set the size and quality of the armed services of the Warsaw Pact and NATO members. At the same time, in our view, it would be wrong to say that the task of a comparison is unfeasible. With a conscientious and objective approach which considers all the main armed services, this is possible.

The asymmetry in favor of NATO in air force and naval power is compensated by the asymmetry in favor of the Warsaw Pact in the ground types of weapons such as tanks, armored personnel carriers and infantry fighting vehicles. These advantages, in turn, are largely compensated for by the substantial NATO advantage in antitank missile systems. But when NATO compares all these asymmetries—naval, air and land—then virtually only one argument is put forward: territory can be captured only by land forces and primarily the "tank wedges" where the Warsaw Pact has a substantial advantage. For this reason there is no need to examine the naval and air components.

We consider as invalid the arguments that only tanks, artillery and armored vehicles bear the greatest threat to stability in Europe, as they supposedly would play the crucial role in a surprise attack and in achieving "the main goal of any aggression," the seizing and holding of alien territory.

Certainly, the aims of aggression do not necessarily consist in the capture and holding of territory. As the experience of wars and local military conflicts indicates, the attacking side can also set other tasks: the maximum undermining of the defensive and economic potential of the nation subjected to aggression, as well as destabilizing of the domestic political situation. These goals are achieved not so much by the land forces as by assault aviation and combat helicopters. Even in the wars where the task was set of holding territory, the attack aviation caused significantly greater damage than the tanks and artillery (for example, in the war between Iran and Iraq). All these wars commenced, as a rule, with a surprise air strike.

In the arsenal of weapons employed for attack and the launching of a first strike to a great depth, the attack aviation and combat helicopters play a priority role. For example, the depth of a strike for modern tactical assault aviation is more than 1,000 km and up to 250 km for the combat helicopters.

This stands in no comparison with the capabilities of tank formations. A tank division stationed 40-50 km from the frontier would require at least 3 or 4 hours to

reach the frontier and deploy into battle formation. It is virtually impossible under such conditions to ensure surprise. This begs the issue that tanks and artillery by themselves are incapable of capturing and holding territory. This requires large masses of personnel and the joint efforts of all components of the armed forces, including both aviation and combat helicopters.

The mobility of the aviation is much greater than the armored and artillery weapons both in terms of speed (approximately 50-fold) as well as in terms of distance. An air wing, for example, in a few hours can be redeployed over thousands of kilometers; it takes at least 2 or 3 days for a tank division to move under its own steam over a distance of just 500-600 km.

In terms of fire capability the attack air systems (aircraft and helicopters) significantly surpass the tanks and artillery. Calculations indicate that if the fire power of an artillery system in hitting targets is taken as one, then a tank surpasses this by 3-4-fold, a combat helicopter by 5-7-fold, and an attack aircraft by 10-12-fold.

The reality is that if one assumes that the air and naval components of NATO in cooperation with the land forces are the first to launch the strikes and conduct offensive actions, then the balance of the land forces can change in favor of NATO.

Contradictory Processes

Whatever the case, even before the start of the talks on conventional armed forces in Europe, the USSR and allied states considered the concern of NATO over the offensive capabilities of the land forces of the Warsaw Pact countries. Such a capability will be significantly reduced and no matter what attempts are made to convince us of the "still insufficient scale of the cutback," it remains a fact that over the 2 years, the Warsaw Pact will reduce the size of the armed forces in Europe by 296,300 men, the number of tanks by almost 12,000, combat aircraft by 930 (unilaterally) as a step demonstrating a readiness for further, but now reciprocal reductions.

The logic of the approach of the Soviet Union and the other Warsaw Pact countries in reducing military tension in Europe is clear and consistent. Unfortunately, this cannot always be said about the actions of the U.S. and NATO military political leadership. There, judging from everything, they are continuing to wager on the maximum utilization of the most recent achievements in the scientific and technical revolution and high technology development in the area of weaponry and military equipment. The hopes of the mass delivery of modern weapons capable of ensuring military superiority over the Warsaw Pact have led not only to an increase in military technical programs but also to the elaboration of new methods and forms for the combat employment of ground forces in Europe with air and naval support.

At present, broad programs have been outlined for modernizing the NATO nuclear weapons in Europe. Concerned by this, we have proposed to NATO to commence talks within the nearest future on tactical nuclear weapons.

Nor can we help but be concerned by something else, that is, the plans for modernizing conventional weapons, as a result of which they will come ever-closer to nuclear ones in their effectiveness. It is a question first of all of the mass introduction of achievements in the area of microprocessor technology into military practices. This can tell on raising the combat effectiveness of missile systems, developing new types of high-precision weapons, as well as battle control, command, communications and intelligence systems.

Such systems will replace numerous "crude" weapons systems and military equipment. These measures alone, as specialists have estimated, make it possible to increase the combat potential of the NATO ground forces by 40 percent.

This is why there is great importance in achieving mutually acceptable agreements on reducing the non-nuclear weapons during the Vienna talks. And here, it must be said, it has been possible to achieve definite results. It is a matter first of all of the agreement of the West in having the cutbacks encompass both combat aviation and helicopters in addition to the tanks, artillery and armored vehicles.

So, this has been a constructive step by our partners in the talks. Among other constructive elements voiced by G. Bush at the NATO session in Brussels (the second round of the Vienna talks was then coming to an end), one can also put the agreement to the levels previously proposed by the Warsaw Pact for tanks, artillery and combat armored vehicles as well as the readiness to discuss aviation and troop sizes in the talks.

At the same time, differences remain and these are to be discussed in the third round of talks in Vienna which began on 7 September 1989. It is a matter primarily of what types of aircraft are to be reduced and in what numbers, as well as the reduction in the number of Soviet and American troops stationed on the territory of the military-political alliances.

Taken as a whole, there has been a substantial shift in the Vienna talks. This provides grounds for optimism both in the West and in the East on checking the conventional arms race. It is no accident that in the Joint September (1989) Statement of the Soviet Minister of Foreign Affairs E. Shevardnadze and the American Secretary of State J. Baker, approval was given to the work done at the talks on conventional armed forces in Europe.

In this context, it is important not to lose the prospective and the main goal confronting the participants in the talks on reducing conventional weapons, that is, a reduction in the military potentials of both blocs to a maximum low level, a radical reduction in the most dangerous offensive

types of weapons and giving a strictly defensive nature to the military-political alliances as a whole.

In speaking now about parity in Europe, we must mention the proposals made by M.S. Gorbachev at a meeting in May 1989 with J. Baker on reducing the armed forces of both alliances in Europe. These proposals envisaged a balance of the armed forces for each side on a level of 1,350,000 men, tactical attack aircraft with 1,500 units, combat helicopters with 1,700 units and tanks 20,000 units.

The implementing of these proposals would not only significantly reduce the existing level of conventional weapons and eliminate asymmetries, but would also impede the continuing of the qualitative arms race and the drive for military-technical superiority. The achieving of an overall balance ultimately would lead to an elimination of mutual fears and mistrust built up over the decades on the continent and unambiguously would bring the balance of forces of the two opposing alliances to a significantly less dangerous level. So, time will tell to what degree our partners in the talks will be ready to respond to the above-mentioned Soviet proposals.

* * *

The next Soviet-American summit meeting, in our view, can provide a new impetus for the process of a mutual reduction in the balance of weapons. This will be held at the end of the spring or the beginning of summer 1990. It is worth pointing out that the head of the current Washington administration is to be involved in it. On 23 September 1989, he expressed the hope that this meeting would lead to agreements on a further reduction in arms. At the same time, G. Bush said that the summit would not necessarily end with the signing of an agreement on arms control. "I do not adhere to the opinion that the summits should be aimed at achieving agreements on arms control, however we intend to act in this direction with all determination and we intend to make headway with all possible methods in order to achieve further arms reductions."

Thus, we are confronted with a very contradictory process: on the one hand, NATO is continuing its efforts aimed at intensifying the arms race and achieving military-technical superiority and accompanied by a propaganda campaign to justify these efforts, including by juggling the quantitative data on the military balances of the sides. On the other, there are very substantial prospects for limiting and reducing conventional weapons at the Vienna talks. If there is the political will in the West for this, these can lead in a relatively short time to the establishing of a significantly lower level of parity on the European continent on the basis of the principle of equality and equal security of the sides.

COPYRIGHT: "Kommunist Vooruzhennykh Sil", 1989.

Reflections on Character of Armed Forces in 1990's

90UM0350A Moscow ARGUMENTY I FAKTY
in Russian No 8, 24 Feb 90-2 Mar 90 p 2

[Interview with Lieutenant Colonel V. Durnev, political department chief at a large Soviet Army unit, by Correspondent I. Nadezhdin: "What Will the Army of the 90's Be Like"]

[Text] Our Correspondent I. Nadezhdin talks with Lieutenant Colonel V. Durnev, political department chief at a large Soviet Army unit.

[Nadezhdin] Now negative facts about life in our Soviet Army are becoming well known. How would you comment on them?

[Durnev] Unfortunately, cases of "dedovshchina" [hazing of conscripts] and mutual relations not in accordance with regulations have still not been eliminated in the Army. It is true that it would be incorrect to say that this is the primary problem in the Armed Forces. Today, inter-ethnic relations (issues of interrelations between individuals of the Armenian and Azeri Nationalities, in particular) and avoidance of military service by both draftees and soldiers who are already serving concern us most of all. Of all cases of mutual relations not in accordance with regulations of a criminal nature that occurred in 1989 in my subunit, only 20 percent can be called phenomena of "dedovshchina" when a soldier who has been in the military for some time attempted to force his will on a new recruit and tolerated striking [the new recruit] with [his] fist. Previously, there were many more such cases.

The remaining 80 percent were precisely cases of so-called "clannishness" or inter-ethnic relations. Many draftees, this particularly applies to those coming from the Transcaucasus and Central Asian Republics, are attempting to create groups along clannish lines with negative tendencies. Let us suppose that soldiers from Azerbaijan refuse to wash floors in the barracks or to clear away the dishes from the first days of service while being motivated by the fact that they say this is unacceptable for them to do in their homes since this is women's work. Attempts to explain to them that this violates the rights of other soldiers, Russian or other nationalities, causes a negative reaction. And, unfortunately, we have to resort even to assistance from the military procurator, administrative pressure, and, no matter how distressing to it may be, to assistance from a military tribunal.

[Nadezhdin] Right now many people are talking about the creation of a professional Army. What is your position on this issue?

[Durnev] I am for a gradual transition, over a three to five year period, to the principle of professional volunteer manning for our state's Armed Forces. I know that, according to recent USSR Ministry of Defense data, already today about 35 percent of our Armed Forces

consists of professionals—officers, warrant officers, and career sergeants. However, it seems to me that this figure is higher in a number of units. Therefore I think that renunciation of the principle of universal compulsory military service is a matter for the near future.

Generally speaking, we, officers and warrant officers, have long waited for a Law on Defense of the USSR. Likewise, we have been waiting for a new Law on Performance of Military Service for a long time. But so far this matter has not gone beyond promises.

[Nadezhdin] They say that after the well-known April events in Georgia in 1989, the so-called Tbilisi Syndrome has developed within our Army. Some of the Army Deputies are saying in that same vein that it is time to stop using troops to suppress the people's speech. And although recent events in Armenia and Azerbaijan are primarily inter-ethnic conflicts, how do you, a regular military [officer], regard the introduction of Soviet Army units?

[Durnev] Negatively, if we are talking about my opinion and the opinions of my subordinates that I have studied to some degree. Our Army is a people's [Army] and we repeatedly said and we are saying right now that "the people and the Army are one." And when Army subunits are used to eliminate conflicts occurring on an ethnic basis, this does not serve the cause of strengthening ties between the Army and the people. This is a matter primarily for internal troops, the militia, and other special subunits that are tasked precisely to do this.

[Nadezhdin] Right now, society is actively discussing the need to repeal Article Six of the Constitution. As a political worker, what is your attitude toward this problem?

[Durnev] I think that the article must be reviewed. The Party must provide a guiding and directing role not declaratively but on the basis of some sort of legislative acts and its work in society, also including in the Armed Forces. And furthermore, with all of our critical attitude toward the Party apparatus and toward the Party leadership today, this apparatus is the only real structure of civilian authority and it is a consolidating political organization. Any violent removal of this organization, in my view, will either result in chaos or in a military dictatorship. The transfer of power from the Party to the Councils is a matter of not only one day of even one year.

[Nadezhdin] Then you are opposed to a multiparty system?

[Durnev] As for how political organs will feel under a multiparty system, I would say the following: Political organs will not be preserved in the form in which they exist today. It seems that only the institute of workers that accomplishes educational functions will be preserved: This will be military sociologists and military psychologists.

[Nadezhdin] An organization called "Shchit" [Shield] was formed quite recently that set itself the goal of social protection of servicemen. How do you regard it?

[Durnev] I will begin with social protection of servicemen. I think that political organs have a great deal of responsibility in this regard. If they are not coping with this function, organizations like "Shchit" will arise. And if you recall, USSR People's Deputy Lieutenant Colonel V. Podziruk raised the question about abolishing political organs in the Armed Forces. I do not agree with him not because in that case the CPSU's guiding role in the Armed Forces will be abolished, but primarily because the institution of social protection of servicemen and members of their families will disappear. And this is precisely what political organs are engaged in.

[Nadezhdin] Based on the economy's development, how do you imagine the future development of the Army? It is really no secret that the Army is at times simply being transformed into a cheap work force.

[Durnev] We have data, for example, that military construction units and subunits consisting of more than 300,000 men are working in support of other ministries and departments and not in support of the Ministry of Defense. I am sure that you will agree that this is a very large formation. And naturally the question arises: Are these people needed to carry out tasks not in support of the Ministry of Defense but in support of some other ministries and departments no matter how unjustifiable this is? My attitude is quite negative.

It is another matter if we talk about alternative service and in this case we draft our young people into military construction units that operate in support of Gosagroprom [State Agroindustrial Committee]. In the oblast where my unit is serving, there are approximately 350 Kolkhozes and Sovkhozes and there are a total of 30,000 kolkhozniks engaged in agriculture. That is, there are an average of 90 people per Kolkhoz or Sovkhoz. And, of course, it is unrealistic for us to expect an abundance of products today. I think that it is here that Armed Forces

assistance will be invaluable in the context of conversion and in the context of transferring our efforts to assist the national economy.

[Nadezhdin] And what is your position regarding protectionism in the Army?

[Durnev] Without a doubt, this phenomenon disgraces the Armed Forces and unfortunately it is occurring even today. I could of course list many specific cases but I think that the matter is in the very system of assignments, promotions, and resolution of other personnel problems. It is precisely this system that presupposes protectionism. It is difficult to do anything against it. We need to change the system as a whole. And I would propose making assignments only on a competitive basis as an alternative.

[Nadezhdin] Right now many conversations are occurring about repealing the Minister of Defense's order on performance of military service outside the borders of the oblast where the draftee comes from.

[Durnev] If you are talking about the principle of manning the Army on the territorial principle, I am against it. I think that the Army cannot be Uzbek, or Armenian, or any other [nationality]. The Army must be All-Union.

[Nadezhdin] As a professional military [officer], do you think that a military coup is possible in the country? Can the Army take power into its own hands?

[Durnev] I believe that [the possibility of] a military coup is excluded in our country. But nevertheless, the processes that are occurring in society today, the process of transferring power to the Soviets are occurring extremely slow and are being impeded. And as a professional military [officer], I would help the Soviets to seize power with all my strength.

[Nadezhdin] Right up to the threat of using arms?

[Durnev] I would not put the question that way. I think that military men, using the Army's prestige that is still preserved in society, must insist on the transfer of power into the hands of the people as soon as possible.

Briefing on Disposition of Troops Leaving Czechoslovakia

90UM0350A Moscow KRASNAYA ZVEZDA in Russian 3 Mar 90 First Edition p 1

[Article by Lieutenant Colonel O. Falichev, KRASNAYA ZVEZDA correspondent: "The Troops Are Returning on Schedule"]

[Text] On 1 March a briefing took place at the Central House of the Soviet Army that was organized by the USSR Ministry of Defense press center. It was dedicated to the withdrawal of Soviet troops from Czechoslovakia.

While discussing this political act, Colonel General D. Grinkevich, chief of the Main Ground Forces Staff, emphasized that our troops were located there based on bilateral agreements. How is the withdrawal being implemented? About 60-65 percent of the troops will already be withdrawn this year. The remaining units will be withdrawn next year. The planned schedule is being strictly adhered to. Two troop trains are already located in the USSR, two are at Chop [Railway] Station, and two are preparing to depart.

But the most complicated problem is something else. How to do it so that Soviet soldiers who have fulfilled their duty abroad are not left socially damaged and their [problems] unattended? As for personnel, there are no problems here. Barracks resources have been prepared. Having served the prescribed time period, soldiers and sergeants will be discharged into the reserve. Nineteen percent of officers and warrant officers have reserved living quarters in the [Soviet] Union. Therefore, it is obviously necessary to take this into account when possible while resolving the issues of their assignment and relocation. And, as Colonel General Grinkevich said, this will be considered when possible. Furthermore, 25,000 officers and warrant officers who are departing the Groups of Forces do not have apartments. What are we going to do with them?

Quite a bit has been done in the military districts where troops are arriving. An operational group has been created in the Ground Forces that will monitor these issues.

And anyway, some of the families will have to live in reequipped classrooms and offices for a while. Will this continue for a long time?

"We have developed a troop reception and billeting plan. And the Ministry of Defense has approved a consolidated plan," said Major General I. Chernyshov, chief of the organizational planning directorate of USSR MO [Ministry of Defense] Capital Construction. "In accordance with it, in 1991-1992 and partially in 1993, we plan to build 227 apartment buildings with 17,500 apartments at the garrisons where units have arrived. Additionally, dormitories for bachelors, kindergartens, and schools will be built at them. To accelerate construction, the Ministry of Defense has asked the government to assign 15 military construction detachments who are working on national economic facilities to do this." The

volume of work totals 500 million rubles. Of that, we need to obligate 100 million in 1990."

However, this is not only a Ministry of Defense problem but a statewide problem. An important role is assigned to local Councils, and to party and government organs. And not only in rendering assistance through construction materials and by allocating the government prescribed quota of housing to servicemen. It would be good for starters if local Councils would simply give the Ministry of Defense [the housing] they owe it. These figures were heard at the briefing. The Armed Forces housing debt since 1984 is 833,000 square meters which totals 16,000 apartments. And, for example, in Moscow, 70,000 square meters. These numbers say that we have created quite a few laws and resolutions in our country but unfortunately not all of them are working at full force. In particular, this was also discussed at the recent meeting of the USSR Supreme Soviet Committee on Defense and State Security Issues.

As for officers, warrant officers, and soldiers of relocated units, all of them perceived the decision to withdraw troops as proper and with high responsibility and understanding.

Moscow MD Prepare for Troops Returning from Czechoslovakia

90UM0350B Moscow KRASNAYA ZVEZDA in Russian 4 Mar 90 First Edition p 1

[Interview with Lieutenant General A. Makunin, Military Council member and chief of the Moscow Military District Political Directorate, by Lieutenant Colonel A. Olinnik: "The Troops Are Returning [Home]"]

[Text] As we have already reported, the withdrawal of our units from the Central Group of Forces has begun in accordance with a Soviet-Czechoslovak agreement. The first troop train of tank crewmen is arriving in the Moscow Military District on 3 March. The Military District faces quite a few problems in connection with this. Lieutenant General A. Makunin, Military Council member and chief of the Moscow Military District Political Directorate, answers the KRASNAYA ZVEZDA correspondent's questions about this.

[Olinnik] Anatoliy Ivanovich, let us begin with the issue that upsets people most of all: Is everything ready to house the returning units?

[Makunin] A number of units and institutions of the Central Group of Forces are arriving in the district in accordance with a USSR Armed Forces General Staff decision. Among them are the Nth Tank Division commanded by Lieutenant Colonel V. Tikhomirov whose first troop train arrives on 3 March. And, during the first stage of the withdrawal, a total of about 100 troop trains with people, combat vehicles, and military equipment will arrive here. And also dozens of vehicle columns that are moving to redeployment areas under their own power.

I must emphasize: Upon receipt of the USSR Ministry of Defense order, we immediately began preparations on a

broad scale to receive the arriving troops. A special commission headed by First Deputy Military District Commander Lieutenant General A. Golovnev has been formed at military district headquarters. A schedule and plan of troop train and vehicle column movements into the district has been compiled. Dozens of barracks for sergeants and soldiers have been prepared and repairs of depots and vehicle storage parks have been conducted at several garrisons in a relatively short period of time. Several barracks are being reequipped to temporarily house families of officers and warrant officers. Although I need to say that the available barracks resources are inadequate to completely house career servicemen under normal conditions without even talking about officers.

[Olinnik] Tell me in detail how you are resolving problems associated with the infrastructure of arriving officer, warrant officers, and their families. As a candidate for People's Deputy, you obviously regard them with particular attention.

[Makunin] I would say I view them with special concern. The housing problem is very acute for the military district today—about 11,000 officers and warrant officers do not have apartments. And we need to house the families of 1,207 tank crewmembers. Really, many of those serving in the CSSR do not have an apartment in the Fatherland. This particularly applies to families of young officers.

We are doing everything within our power. More than 40 apartments and two officer dormitories which will house 84 families have been prepared at garrisons where the tank crewmen are arriving. Several barracks and other buildings are also being reequipped to provide temporary family housing. According to our calculations, we will be able to provide housing to about 250 of the tank crewmen's families. But where will the rest live? There is another problem. About 500 school age children and more than 700 preschool age children are arriving just with the tank crewmen's families. This means that we need additional place in schools, kindergartens, and nurseries. It is perfectly obvious that it is going to be very difficult to solve all of these social problems through the efforts of the military district and the Ministry of Defense. Perhaps we will not succeed in providing people with apartments and resolving other housing problems arising in connection with the arrival of troops from abroad within a comparatively short period of time without additional appropriations and without government assistance.

[Olinnik] You have touched upon problems that require a state program of social security for servicemen and members of their families to be totally resolved. But, as we all know, there is no [state program] yet. Certainly in connection with this, the military district has a right to count on serious assistance from local government and party organs where the troops are arriving from abroad. Is such assistance being rendered? On what scale?

[Makunin] Here it is appropriate to also recall the enormous housing debt that local Soviet government authorities are not hurrying to return to district military units that are

deployed on the territory of many oblasts. Even though this really would only partially help to alleviate the acute apartment crisis for servicemen arriving from abroad.

Unfortunately, I must honestly say: Right now we are not sensing any specific assistance in solving the problems associated with the arrival of the troops either from the government or from local authorities. Although much depends on recognition of the political significance of these problems by leaders of all ranks. For example, Gennadiy Maksimovich Khodyrev, first secretary of the Gorkovskiy Party Obkom, and Aleksandr Aleksandrovich Sokolov, Oblispolkom chairman, understand the problems associated with housing officers, warrant officers, and their families who are arriving from abroad. The oblispolkom in particular has allocated several apartment buildings (it is true, they are old construction) for 60 families and also 100 rooms in enterprise dormitories for tank crewmen's families. They intend to build more than a dozen apartment buildings and to open several kindergartens during the next three years. All of this will help to alleviate the housing problem to some degree although it will not completely solve it.

[Olinnik] Last question. Anatoliy Ivanovich. How will the meeting with the first tank crewmen troop trains take place and will they soon begin planned combat training activities?

[Makunin] As I already said, we are attempting to do everything in our power to house the troops arriving in the military district. Right now, Military District Commander Colonel General N. Kalinin and a large group of headquarters and political directorate officers are there.

As for the tank troops combat training, such a long distance division size redeployment will of course leave its imprint on all aspects of their service. But the primary mission remains the main thing—it is the tank crewmen's skill and their combat readiness. Once the subunits have arrived and their infrastructure and vehicle preparations to spring-summer operating mode are completed, the tank crewmen will be involved in an intensive training process. A training center, tank training area, [firing] range, and other training facilities have been prepared for this.

I must point out that the political training of soldiers and sergeants and the Marxist-Leninist training of officer personnel will be organized in the very first days after their arrival in the military district. We will assist commanders and political workers in the education of people and will acquaint them with the glorious history of the capitol military district and its combat traditions.

I think all of this will permit the tank crewmen to enter our military district's combat family of soldiers in a short period. However, it is important that personnel of units arriving home from abroad also sense the state's concern—the defenders of the Fatherland have a full right to this.

Review: Yazov Book on Military Organizational Development

90UM0307A Moscow *KOMMUNIST*
VOORUZHENNYKH SIL in Russian No 22, Nov 1989
(signed to press 14 Nov 89) pp 87-89

[Review by Maj Gen V. Khrobostov, candidate of historical sciences, and Col V. Molostov, candidate of philosophical sciences, published under the heading "Criticism and Bibliography," of the book "Oboronnoye stroitelstvo: novyye podkhody" [Defense Organizational Development: New Approaches], by D.T. Yazov, Moscow, Voenizdat, 1989, 64 pages]

[Text] The new political thinking which has been developed by our party during the years of perestroika has introduced fundamental adjustments in Soviet military doctrine. It has assumed a strictly defensive nature and has necessitated the organizational development of the Armed Forces in being guided chiefly by qualitative parameters and the unswerving observance of the principle of reasonable sufficiency.

How the new is embodied in carrying out the tasks of the defense capability of the Soviet state and what must yet be done are described in the book by the Candidate Member of the CPSU Central Committee Politburo and USSR Minister of Defense, Army Gen D.T. Yazov "Oboronnoye stroitelstvo: novyye podkhody" [Defense Organizational Development: New Approaches]. It provides a thorough discussion of the objective need for new thinking on the questions of national defense and security, on the urgent problems and practical tasks of perestroika confronting the command and political personnel and all the men, on the processes of the democratization of military life and the popular character of the Soviet Armed Forces. The four sections unified by a common theme thoroughly examine the core areas of perestroika in the Army and Navy.

Defense and security are the chief priorities in our state's foreign policy. In explaining them from the standpoint of the new political and, consequently, military thinking, the author emphasizes that nuclear warfare, like conventional warfare, under no circumstances can be viewed any longer as a reasonable means of achieving political, economic and ideological goals or a rational continuation of politics. For this reason, there is no acceptable alternative to the peaceful coexistence of the two opposing social systems.

The paradox of our age is that the build-up of military technology does not stabilize international and national security. The arms race has become absurd. An analysis of the dialectics of force and security existing in the present stage in international relations has made it possible for the author to draw a number of fundamental conclusions: reliance on military force or the threat of its employment is incapable of ensuring dependable security; a build-up of military strength does not strengthen but rather undermines security; a self-sufficient status for military strength in the security system destabilizes

it. Thus, ensuring the security of states to an ever-greater degree will depend not upon the ratio of military potentials but rather upon political decisions.

The book examines the following new approaches in the development of the Armed Forces: in the first place, the transition from the principle of overarming to the principle of reasonable sufficiency for the sides; secondly, the repudiation of the principle of maintaining an advantageous balance of forces in favor of the principle of equal security and the maintaining of a stable military-strategic parity; thirdly, the giving of a greater defensive focus to the predominantly offensive structure of the groupings; fourthly, replacing the quantitative description of the state of the Armed Forces by qualitative indicators for defense organizational development.

The author shows how the establishing of the principles of new political thinking and the implementation of peace-loving initiatives by the socialist countries to a significant degree have reduced the level of military confrontation between capitalism and socialism and have led to a thaw in the world's climate as a whole and to the reduction of nuclear arsenals. However, the guarantees for the irreversibility of the insipient positive changes in international relations in the area of disarmament and the strengthening of confidence-building measures as yet have not come into being. In line with this, the main purpose of the Soviet Armed Forces has been and remains the carrying out of the cardinal task of modern times—preventing war, either nuclear or conventional. The Army and Navy must provide strategic stability in the world and guarantee the security of the Soviet state and its allies against aggression.

The main factor in preventing war in the given stage is the approximate military-strategic equilibrium between the USSR and United States, the Warsaw Pact and NATO. The book emphasizes that the key area in the organizational development of defense is not to permit a shattering of the existing balance of forces between the two military-political alliances and maintaining the Army and Navy in a state which would exclude strategic superiority by the forces of imperialism. At the same time, the parity level should be steadily reduced, since under the conditions of overarming it can cease to be a dependable factor for restraining and preventing war.

The book describes in detail the unilateral steps initiated by the Soviet Union in the area of large-scale unilateral troop cutbacks, and the bringing of their structure into accord with a defensive USSR doctrine. This will make it possible to reduce their total number by the end of 1990 from 4,258,000 to 3,760,000 and from the strength of the Soviet troop groups in 1989-1990, to withdraw 50,200 servicemen, 6 tank divisions, 5,300 tanks, 1,100 guns and 321 aircraft.

The USSR Ministry of Defense is initiating specific measures to convert the formations to a new defensive organizational structure, in particular, with a smaller number of tanks, but with a larger number of antitank

weapons. This to a significant degree will compensate for the numerical reduction in troops. The further development of the disarmament process will depend largely upon the results of the Vienna talks on conventional armed forces in Europe.

In a closely reasoned manner, the author explains that defensive sufficiency in the organizational development of the Soviet Armed Forces is determined not only by the plans for the defense of the USSR, but also by the nature, scale and direction of military preparations by a probable enemy as well as by the strength of its troop groupings. We cannot discard the militaristic danger lying in the nature of imperialism. Regardless of certain transformations in its economic base and political superstructure, the aggressiveness of imperialism is maintained and does not wither away under the influence of the surrounding world. Its reactionary forces continue to intervene into the internal affairs of sovereign states, they are waging an undeclared war against the freedom-loving countries and peoples and are consumed by the idea of military superiority.

Under these conditions, the organizational development of the Armed Forces, as is clear from the book, should be carried out not only within the limits of the necessary defensive sufficiency but also in such a manner that between the Soviet Union and the United States there is a constant, approximate equilibrium between the military forces and above all its main component—parity in strategic nuclear weapons—is maintained. The new feature in the defense organizational development is at present in abandoning the “mirror-like countermeasures” to the military preparations by imperialism and in seeking out the asymmetricalness of the preventive actions which have a strictly balanced and clearly limited nature. The reasonable sufficiency of defense is the ability of the military organization of socialism to carry out the tasks of preventing war with the greatest effectiveness and with the forces which are strictly essential for this and in an extreme instance, to repel possible aggression by retaliatory actions.

It must be emphasized that there is a visible contradiction between the course of reducing the number of forces and weapons, the expenditures on defense, the growing conversion of military production and the need to maintain the combat potential of the Armed Forces on the level of dependable sufficiency. On the basis of a profound examination and analysis of this and assessing the nature of the military danger and the capability of countering it, the party at the 19th All-Union Conference concluded that the key to ensuring efficient defense development is to be found in qualitative parameters both in terms of the equipment and military science and the personnel of the Armed Forces. Such an orientation is dictated by the fact that reliance on quantitative indicators is becoming evermore costly and ever-less effective for strengthening our security.

The book provides a profound and detailed examination of the specific content of the category “qualitative

parameters” in terms of each of the areas of military organizational development mentioned at the 19th All-Union Party Conference. For weapons and military equipment, this is the development of those systems which should ensure the possibility of carrying out the tasks with fewer weapons but with greater effectiveness. In the area of military science, it is a question of working out new concepts of military art in accord with the defensive nature of military doctrine and seeking out methods for a more effective execution of the tasks with reduced personnel and minimum expenditures of materiel. As for the make-up of the Armed Forces, this means a decisive improvement in the entire troop training system, the rational allocation and balanced development of the services and combat arms as well as improved quality of command and control.

At present, in the public mind, two different approaches have become established to the methods of military organizational development. These are examined in detail in the book. The first presupposes an improvement in the existing system of organizational development of the Soviet Armed Forces while the second (in the form of new thinking) is aimed at changing the principles for the structuring of the Army and Navy and introducing territorial-militia, volunteer and nationality manning principles. Here one can see a clear miscomprehension of the fact that the territorial-militia system under the complex conditions of modern weapons is unable to carry out the functions of a dependable defense of the socialist fatherland and a transition to volunteer manning would entail a sharp increase in the USSR defense budget for maintaining the Armed Forces. Over the period of its existence, the military organization has acquired experience in both the militia-territorial system as well as the extraterritorial and international (composite) manning systems. For this reason, these proposals are not fundamental innovations but rather represent an illusory reflection of existing realities or a conscious altering of the underlying principles of military organizational development.

Having posed the question of what the Armed Forces should be under present-day conditions, Army Gen D.T. Yazov provides a thorough answer to it, linking together the political, economic and particularly the military aspects of the organizational development and manning of the USSR Armed Forces. He emphasizes that from the very first days of Soviet power, the defense of the socialist fatherland was a concern of all the people. Our army is an army of the people both in terms of origin, in terms of historical purpose and in terms of its make-up. It lives for the same life, interests and concerns as the nation. Here lies the guarantee for a successful restructuring with the current principles for manning the Soviet Army and Navy.

The chief direction in the restructuring of the Armed Forces is developing the processes of glasnost and democratization, increasing the political and service activeness of the command and political cadres and all the personnel and their involvement in the concerned,

enterprising and responsible fulfillment of the tasks linked to strengthening discipline and improving combat readiness. "The process of democratization," writes Army Gen D.T. Yazov, "is natural for our Armed Forces as part of the people for whom the revolutionary restructuring of society has become a vital matter."

The author shows that democratization in the Army and Navy develops through the overcoming of the contradictions with one-man command as the fundamental principle in military life. In being carried out on a party basis, one-man command ensures the personal responsibility of the commander-leaders (and executors) for the state of affairs in the assigned work area. It also presupposes activities on the part of the leadership in carrying out party defense policy which expresses the will of the people, when this activity is carried out within the strict limits of the rights and powers assigned to the command and political personnel. The essence of the party basis of one-man command lies precisely in this.

The development of the processes of democratization, says the author in continuing his line of reasoning, also presupposes the achieving of a level of command relations which ensures the fullest realization of the rights of the serviceman combined with his responsible approach to his service duties from the standpoint of state interests which exclude arbitrariness and irresponsibility.

Perestroyka in the nation is being accompanied by the rapid process of politicizing all strata of Soviet society and by a pluralization of public opinion. All of this significantly raises the role of party political work in educating the personnel and in training the troops and naval forces. In ideological and party organizational work, at present the commanders and political workers find indispensable the strengthening of analytical and forecast approaches, the decisive overcoming of conservatism and democratizing the work methods with the personnel.

The restructuring of defense organizational development is an ongoing process. At the same time, it is impeded by the inertia in the thinking of individual officials, and in not fully involving such elements of the troop organism as the formation, regiment and ship. Certain commanders, political bodies and staffs at times cannot see their place in restructuring. However, the positive results achieved, in growing more and more, show that restructuring in the Armed and Navy is picking up its pace. The results are most tangible and stable where the new approaches in solving the urgent tasks are combined with a critical reassessment and creative employment of our more than 70-year experience.

In the reviewed work, the reader undoubtedly will find much that is valuable and useful for understanding the essence of the perestroyka processes in the area of national defense and the organizational development of the Armed Forces and which are now being carried out from the position of the new political thinking. At the same time, the time is already here for a scientific work

which would generalize the experience acquired over the four years in renewal in the Army and Navy.

COPYRIGHT: "Kommunist Vooruzhennykh Sil", 1989.

Biographical Notes: Col Gen G.V. Kochkin

90UM0307B Moscow *KOMMUNIST*
VOORUZHENNYKH SIL in Russian No 22, Nov 1989
(signed to press 14 Nov 89) p 90

[Biographical information on Col Gen Gennadiy Vladimirovich Kochkin who has been appointed deputy chief of USSR civil defense for political affairs]

[Text] Born on 31 May 1934 in Gorkiy in a white collar family. In 1945, he completed three grades of secondary school and was admitted to the Gorkiy Suvorov Military School where he was a student until 1952. He was then admitted to the Moscow Military School imeni Verkhovnyy Sovet RSFSR. The first position with which he began his service as a lieutenant was as commander of a rifle platoon. A year later, he was elected the secretary of the Komsomol organization in a combat engineer battalion and then for almost six years was in Komsomol work. He was the secretary of the Komsomol organization in rifle and motorized rifle regiments of rifle and tank divisions and the assistant chief of the political department of a tank division for Komsomol work. From this position, he was admitted to the Military Political Academy imeni V.I. Lenin. He completed it with honors and was sent to the Red Banner Baltic Military District as the deputy commander of a motorized rifle regiment for political affairs. There he was the deputy chief of the political department of a motorized rifle division and subsequently was sent to the Central Group of Forces in the same position. From here he went to the Red Banner Baltic Military District where for about four years he headed the political department of a motorized rifle division.

After completing the Military Academy of the General Staff of the USSR Armed Forces imeni K.Ye. Voroshilov, he was the chief of the political department of an army corps and military council member and chief of the political department of a combined-arms army; in 1981, he was the first deputy chief of the political directorate and from 1984, military council member and chief of the Military Directorate of the Central Asian Military District, and from 1987 through 1989, the military council member and chief of the political directorate of the troops of the sector.

He is a Russian. He was admitted to the CPSU in 1955. He has been elected a member of the CPSU gorkoms and obkoms, and has been a member of the Kazakhstan CP Central Committee. He has been a delegate to the 26th and 27th CPSU Congresses and the 19th All-Union Party Conference. He has been a deputy of the city and oblast soviets and from 1985, a deputy of the Kazakh Supreme Soviet.

For successes in military and political training and for the mastery of new combat equipment, he has been awarded two Orders of the Red Staff (1969 and 1982), and the Orders for Service to the Motherland in the USSR Armed Forces 2d Degree (1987) and 3d Degree (1977) as well as numerous medals.

He became a major general at the age of 45. He has held the rank of colonel general since 1989.

He married in 1957. His wife is a Muscovite and is a foreman in the garment industry. The sons have completed the Moscow Higher Military Combined-Arms Command School imeni Verkhovnyy Sovet RSFSR. The elder in 1986 was killed in performing service duties and the younger serves in the Southern Group of Forces.

Lines for Biography (From Comments of Fellow Servicemen)

"By character is direct, bold and capable of defending his own viewpoint."

"Responds correctly to criticism and assesses his own activities in a critical and principled manner."

"Possesses high organizational abilities and capacity for work, is principled and intolerant of shortcomings."

COPYRIGHT: "Kommunist Vooruzhennykh Sil", 1989.

Biographical Notes: Col Gen A.M. Makashov

90UM0307C Moscow *KOMMUNIST VOORUZHENNYKH SIL* in Russian No 22, Nov 1989 (signed to press 14 Nov 89) p 91

[Biographical Data on Col Gen Albert Mikhaylovich Makashov, appointed commander of the Volga-Ural Military District]

[Text] Born on 12 June 1938 in Levaya Rossoch of Voronezh Oblast in a worker family. After completing 4th grade, he was admitted to the Voronezh Suvorov Military School where he studied until 1956. In order to become an officer, he chose the Tombov Military School but was able to finish only one year there as the school was disbanded. He continued his studies in the Poltava Military School, but a year later it was also closed. He was able to finish the 3d year in the Tashkent Combined-Arms School imeni V.I. Lenin. This was in 1960. Together with his honors diploma and officer rank of "lieutenant," he was appointed to the Group of Soviet Forces in Germany (presently, the Western Group of Forces). There he was in command of a motorized rifle platoon and an intelligence company.

Upon relief he was transferred to the Red Banner Transcaucasus Military District where he was also in command of an intelligence company and then became the chief of intelligence for a tank regiment and the commander of a motorized rifle battalion. From this position he was admitted to the Military Academy imeni M.V. Frunze.

After the academy, there was service in the Red Banner Kiev Military District: for 18 months as the commander of a motorized rifle regiment and then another 18 as deputy commander of a motorized rifle division and four years as division commander. Then came studies in the Military Academy of the General Staff of the USSR Armed Forces imeni K.Ye. Voroshilov. He completed it like the Academy imeni M.V. Frunze, with a gold medal. He was appointed the first deputy commander and then commander of a combined-arms army, for 2 1/2 years he was the first deputy commander of the Red Banner Transcaucasus Military District and later became the commander of the Red Banner Urals Military District.

He is a Russian. He was admitted to the CPSU in 1959. He was elected a deputy of a city soviet, and on 26 March 1989, was elected the USSR People's Deputy from the Irbit Territorial District No. 297 of Sverdlovsk Oblast of the RSFSR.

For successes in military and political training and for the mastery of complex combat equipment, he was awarded the Orders of the Red Staff (1988), for service to the motherland in the USSR Armed Forces 3d Degree (1978) as well as many medals.

He received his rank of "colonel" early, in 1976, he became a major general at the age of 41 and the rank of colonel general from May 1989.

His family consists of a wife, two daughters and a son. One of his daughters has married an officer and the other is a student at the Military Medical Academy imeni S.M. Kirov. The son is an officer serving in the Red Banner Belorussian Military District.

Lines for Biography (From Comments of Fellow Servicemen)

"Shows exceptional conscientiousness for his duties. Very capable and developed."

"Can quickly assess a situation and draw correct conclusions.... Sets out his thoughts logically and consistently."

"Does not show hurry. Possesses a good memory."

COPYRIGHT: "Kommunist Vooruzhennykh Sil", 1989.

Interview with Kiev MD Commander Col Gen Gromov

90UM0311A Moscow *SOYUZ* in Russian No 6, 5-11 Feb 90 p 3

[Interview with Kiev MD Commander Lieutenant-General B.V. Gromov by SOYUZ Correspondent N. Baklanov, Kiev, 5 February: "I Believe in the Combat Brotherhood! Express Interview with the Commander of the Red Banner Kiev Military District and USSR People's Deputy"]

[Text] Having left the long-suffering land of Afghanistan a little over a year ago, Hero of the Soviet Union

Lieutenant-General B. Gromov who commanded forces of the "Limited Contingent" at that time experienced, in his own words, a great feeling of relief that the last [soldier] had left without leaving one fighting Soviet soldier behind him. He could hardly have suggested then, by the way, like the rest of us, that very little time would pass and once again the blood of soldiers who are Afghan vets would be spilled. This time—in our own home....

[Baklanov] Boris Vsevolodovich, honestly speaking, the combat brotherhood of the internationalist veterans who honorably fulfilled their duty during the decade-long war that was tragic for our people and the Afghans has for many people practically turned out to be the single conquest worthy of indisputable respect. And society is finding out that during the dramatic events that have occurred in Azerbaijan and Armenia that veterans who served in Afghanistan have participated on one side or the other in the bloody clashes and that they have at times opened fire on their brother soldiers who arrived in the Transcaucasus to restore peace on the land that found itself on the brink of a senseless civil war. What can you—the current Commander of the Red Banner Kiev Military District and a USSR People's Deputy—say through the weekly SOYUZ to your former comrades in arms who have turned out to be on different sides of the barricades today?

[Gromov] The fragmented and vague information that soldier-internationalists are using their combat skills on the side of extremists does not ring true to me. How have they not tried to sully the [reputations] of Afghan veterans recently. They have described them as racketeers, drug addicts, and have represented them as people who will potentially commit suicide. In fact it has always turned out that they are people with high moral toughness and an active stand in life.

You have quite accurately observed that the brotherhood of soldier-internationalists is worthy of respect. And they value this binding force. Why would they destroy their unity on the unjust paths of an inter-ethnic conflict provoked by zealous foes of democracy and internationalism?

I can only verify the facts. Who, when, and where was a weapon raised against a brother Afghan vet? Who was he in Afghanistan? What appeared momentarily in the press was that mines were laid just like they were in Afghanistan. There was no such special "Afghan" method of laying mines! Or they write that someone brandished a soldier-internationalist's Right to Benefits Certificate in front of hostages. Once again: Who, where, and when? Was this an Afghan veteran or an extremist using someone else's document?

I do not exclude the possibility that a former Afghan veteran could use his combat experience while protecting his relatives and fellow villagers from extremists' encroachments. Furthermore, I am certain that each soldier-internationalist who found himself in such a

situation acted like a real man and a brave soldier. There is completely reliable information that quite a few soldier-internationalists joined Army assistance detachments and helped internal troops to establish order.

Thus, I have nothing to say about "finding themselves on different sides of the barricades." And I would like to say to Afghan soldier-veterans residing in the Transcaucasus: 'A difficult ordeal has become the fate of the peoples of Armenia and Azerbaijan. I believe that you, my brothers in combat, are at the center of events right now and, without regard for danger, will save people and strengthen law and order. I believe that anyone who attempts to use your combat experience to the detriment of the people will get a worthy rebuff.'

[Baklanov] In Afghanistan, the Army you led opposed paramilitary formations whose leaders, having called it a "holy" war, attempted to impart a clearly religious character to their activities. The impression is taking shape that certain forces, including external forces, are also striving to create a similar situation right now in Azerbaijan having announced that events in the republic first of all have the mark of some sort of Islamic confrontation. However, it is thought that such an interpretation of events is advantageous to those who, having played on peoples' religious feelings, would like to destabilize the situation in the region and break off a Republic from the Union and thus place the existence of the Soviet regime in it at risk. Your opinion in this regard?

[Gromov] The leaders of the armed opposition's combat formations are actually striving to impart a religious complexion to the struggle against the legitimate government but they have far from always succeeded in doing this. Tell me, what "holy war" can we be talking about if the majority of the operations conducted by them have ended with robberies, rape, and murder of the peaceful population?

In my opinion the cause of the situation that has developed in the Transcaucasus is that the processes of perestroika and democratization have begun to undermine the positions of a well known portion of the corrupt apparat and to shed light on the "dark economy." The degree of conflict also precisely speaks about their strength in this region. But as we all know, shrewd businessmen and bribe takers are supranational and suprarreligious. They have a different credo.

The thesis about the religious opposition is no more than clumsy camouflage and is easily refutable by history and by the very course of the conflict.

[Baklanov] A portion of the flow of refugees rushing out of the Transcaucasus during this alarming time has also arrived in Kiev. Please tell me about the aid Kiev Military District subunits are giving to these people.

[Gromov] The Kiev Military District has received more than 6,000 refugees who are members of servicemen's families. The most varied types of assistance have been rendered to them—wives, children, and elderly people.

People have been billeted in military hotels, sanatoriums, and dormitories and have been provided with free meals and skilled medical care. Each family has received a monetary allowance and free travel documents from USSR Ministry of Defense resources. Work has not been completed in this regard.

We are not declining all responsibility for the future fate of refugees who are members of families of servicemen who have remained to reside within our military district's borders. Both the principles of humanity and the unwritten code of Army honor require this.

[Baklanov] What do you think is the solution to the Transcaucasian crisis? In your opinion, how long will the presence of additional Army forces in Armenia and Azerbaijan be necessary to restrain the revolutionary detachments' extremist operations and to maintain law and order in this explosively dangerous region?

[Gromov] I will not make a prediction. But I think that our politicians have a graphic picture in order to understand that: The Army has once again taken an immeasurable load onto its shoulders and is once again prepared to bear it until not only the threat disappears but even until the most remote possibility of bloody reprisals, pogroms [massacres], and nationalist extremism disappear.

Comments on Family Life, Current Activities of Col Gen Gromov

90UM0314B Moscow PRAVDA in Russian 15 Feb 90
Second Edition p 6

[Article by V. Izgarshev: "The Army Commander's Bridge"; first paragraph is PRAVDA introduction; article accompanied by photo of Gromov and wife Faina]

[Text] It was one year ago that the commander of the 40th Army was the last to cross the bridge over the Amu Darya, travelling from the Afghan side to his native country. You may recall the television coverage of how Lieutenant General Boris Gromov embraced his eldest son on the bridge.

The above was a memorable, touching, and happy day.

A year has passed. What has it brought the commander?

The general's shoulder boards exhibit another star. He has been designated commander of the Red Banner Kiev Military District. He has been elected USSR people's deputy. There have also been changes in his personal life. The reader may recall—as reported in PRAVDA—that his wife lost her life in an airplane accident in the spring of 1985. Boris Vsevolodovich has since remarried. In so doing, he became the instant father of a large family. Gromov's wife Faina also found happiness as mother of a large family. Maxim and Andrey Gromov now have two little sisters—five-year old twins Zhenechka and Valyusha. What a large family!

I visited the Gromovs in Moscow; the kids were in Kiev. As I was looking at peaceful pictures in the family photo album, the conversation kept coming back to the "Afghan" topic. There just is no escape from it as far as the commander is concerned. He receives stacks of letters. The Gromovs invite fellow servicemen to their home, and the latter share their innermost feelings and ask for help, usually in the organization of "Afghan" clubs. He can resolve problems more easily in his district, which he does.

Gromov is presently taking higher academy-level courses. He admits that this is difficult. It is truly said that the early years are best. On top of that, there is no end to cares. It is a district, after all! In Afghanistan, for example, the housing problem was something that the commander did not have to deal with. But here, it is a different story. Thousands of officers and warrant officers of the district's installations do not have a roof over their head. To add to the woes, many have been affected by the military reductions, with the result that they are not listed on a table of organization and equipment—they are unassigned. It is true that about 30 percent of them can be discharged on the basis of their entitlement to a pension. But what can be done with the rest? Also, in the near future it will be necessary to absorb officers arriving from the Southern Group of Forces. By fall units will be taking on graduates of officer schools and academies. It makes a person's head spin! Once a week the higher course student flies to Kiev for a day or two. He does this not because he does not trust his deputies, but out of concern for people. He wants to spend time with them.

What can be done about finding housing for officers and their families? He is convinced that there is only one solution, and that is to employ Ministry of Defense forces to erect housing in the European part of the country. Otherwise, the need will never be filled. If we do not resolve social problems, we will cause much harm. When you come right down to it, everyday life and social security are the key to discipline and order in the Army. What is the current basis of military discipline? Awareness of the high duty, honor, and dignity of the officer; and party discipline exhibited by Army communists. It is a good thing that the party component was an object of constant concern in the Army. Communists who wear shoulder boards—the vast majority, at least—treasure their membership in the party. Fortunately, only a very few choose to drop their membership.

Night was approaching. A light snow was falling onto warm ground. It was exactly the same then, one year ago, in "Afghan" country.

At that time we spent a number of evenings together, just before the last column of the limited contingent withdrew from Kabul. Boris was calm on the outside, but I knew that he was experiencing strong emotions.

What was on the commander's mind? I did not ask, since I already knew what the answer would be. I have known Boris Vsevolodovich for a decade and a half, after all. And I like him for his optimism, clear thinking, and openheartedness.

Interim Statute on Officers' Conference

90UM0310A Moscow KRASNAYA ZVEZDA in Russian
13 Feb 90 First Edition pp 1-2

[Interim Statute on the Officers' Conference in the USSR Armed Forces]

[Text] From the Editor

The text of the Interim Statute on the Officers' Conference in the USSR Armed Forces, revised with regard for proposals from participants of the All-Army Officers' Conference held in December of last year and proposals submitted by individual officers, is published below in response to numerous requests from officers.

The purpose of its publication is to encourage discussion of the Interim Statute by a wide range of officers.

All proposals and critical remarks must be submitted to the Main Cadres Directorate of the USSR Ministry of Defense via Cadres organs by 1 July 1990 to permit preparation of the Statute on the Officers' Conference in the USSR Armed Forces.

The newspaper's editorial office intends to systematically publish materials on the course of the discussion on the Interim Statute on the Officers' Conference and the work experience of conferences held in military units, aboard ships and in military educational institutions and services.

A draft of the Code of Honor of the Soviet Officer, which cadets of military schools will swear to prior to being awarded an officer's rank upon completion of their studies, is published simultaneously. This Code is to be included in the Statute on Performance of Military Service by Officers.

I. General Principles and the Composition and Structure of the Officers' Conference

1. The Officers' Conference is a permanent public organization of officers in the USSR Armed Forces. Its mission is to promote, in every way possible, the infusion of a sense of an officer's honor and merit in officers¹, realization of the social and spiritual needs of officers, development of comradely communication, unification of officer collectives, and greater activeness of officers in the performance of their military duty.

2. An Officers' Conference is created in regiments, aboard ships, in separate battalions (artillery battalions)² and units equal to them, in military educational institutions, in the directorates of formations (major formations) and in military enterprises and services (referred

to subsequently as "military units") in accordance with this Interim Statute. If military units stationed in a garrison possess an insignificant number of officers, a joint garrison (formation, major formation) Officers' Conference may be created.

The commander of the military unit is the Chairman of the Officers' Conference, and the Garrison Chief is the Chairman of a Joint Garrison Officers' Conference.

3. All officers of the military unit or garrison are members of the Officers' Conference on a voluntary basis. A ritual admitting officers into the Officers' Conference on a voluntary basis is developed in every military unit. Officers of separate subunits may be accepted as members of Officers' Conferences of nearby military units irrespective of the armed service of the USSR Armed Forces to which they belong.

The Officers' Conference of a military unit may include personally selected reserve or retired officers who are veterans of the given military unit. By decision of the Officers' Conference, officers serving detached duty for a long period of time in military units may be granted the right to participate in all functions conducted by the Officer's Conference.

4. By decision of the Officers' Conference, guests may be invited to functions conducted by the Officers' Conference, to include warrant officers, correspondence and attending students of military educational institutions, the unit's extended-service servicemen, the families of officers, blue and white collar workers of the Soviet Army and Navy, representatives of party and soviet organs, public organizations, other military units, industrial enterprises, agriculture, scientific institutions and educational institutions, and veterans of the USSR Armed Forces.

5. The General Conference of Officer Cadres, which is conducted not less than once every three months or at the demand of one-third of the members of the Officers' Conference, and which is empowered to act in the presence of a quorum of not less than two-thirds of its members, is the supreme organ of the Officers' Conference. The business of conferences and adopted decisions are entered in the conference record. Moreover when necessary, an Officers' Conference may conduct solemn meetings in conjunction with state holidays, anniversaries and various celebrations in honor of officers. If the military unit is stationed in several remote garrisons, delegate officers' conferences are conducted. The number of delegates is determined by the Council of the Officers' Conference.

The travel expenses of delegates to a conference are compensated by money placed at the disposal of commanders of military units to pay for official temporary duty assignments.

6. Working bodies are elected at a General Conference of Officer Cadres by secret ballot (by open ballot at the

decision of the conference) for a term of two years in order to manage day-to-day business:

- a) the **Council of the Officers' Conference**, with a membership determined by decision of the general conference.

The Chairman of the Council and his Deputy are elected by direct secret ballot, while the secretary is elected by open ballot at the Council's organizational meeting. The Chairman of the Council is elected from among the unit's senior officers. The following may be asked to participate in the work of the Council of the Officers' Conference: the Chairman of the Officers' Comrades' Court of Honor, the Chairman of the Permanent Certification Commission, and representatives of other public organizations and commissions. Reserve and retired officers and Generals may be elected to the Councils of Officers' Conferences under Military Commissariats;

- b) the **Officers' Comrades' Court of Honor** is elected as an organ of the Officers' Conference with a membership determined by a decision of the General Conference, but not less than 7 persons. The Chairman and the Deputy Chairman of the Officers' Comrades' Court of Honor are elected at the General Meeting, while the Secretary of the Court is elected at the Organizational Meeting of the Comrades' Court. The Chairman of the Court is elected from among senior officers.

Several candidates may be nominated for one seat in elections to the Council of the Officers' Conference and the Officers' Comrades' Court of Honor. An officer is said to be elected when he receives the largest number but not less than half of the votes of officers participating in the general conference. When necessary, the general conference may hold a special election to fill a seat vacated by any member of the Council of the Officers' Conference and the Officers' Comrades' Court of Honor prior to expiration of his term. The results are reflected in the record of the General Conference of Officer Cadres.

7. All measures of the Officers' Conference are organized and conducted as a rule using the facilities of officers' clubs, and in garrisons and military units lacking the latter, in places specially allocated by the command and provided with the necessary property and communication equipment. When necessary, building space, transportation and other materiel may be hired or leased in accordance with the established procedure.

8. The work of the Officers' Conference proceeds on a democratic basis, in an atmosphere of broad glasnost and benevolence promoting open exchange of opinions and free, comradely communication and ensuring mutual responsibility and respect in mutual relations between all officers. In planned functions conducted by the Officer's Conference, officers of junior and senior rank may refer to each other not only by rank but also by first name and patronymical, irrespective of subordination.

9. The Officers' Conference conducts its business in close contact with political organs, party and Komsomol organizations, the women's council and other public organizations and commissions. Higher commanders (chiefs) and

political and Cadres organs study, generalize and disseminate the work experience of the Officers' Conference.

II. Tasks and Powers of the Officers' Conference

10. The Officers' Conference is assigned the following tasks:

- Bringing up officers in the spirit of patriotism and internationalism, devotion to military duty, and high responsibility for constant readiness to defend the socialist motherland, shaping their high ideological, political, professional, working and moral qualities, encouraging active participation in the processes of perestroika, and developing a creative attitude toward fulfilling of one's official responsibilities;
- maintaining comradely relations in the officer collective based on observance of an officer's honor and merit and faithfulness to one's profession;
- promoting growth of general and military culture of members of the Officers' Conference, and their mastery of their Soviet and world military-historical legacy;
- ensuring that officers are protected against coarseness and tyranny, belittlement of personal worth and social injustice when confronted by the problems of performing service, and improving the living and personal conditions and cultural services of officers and their families;
- shaping public opinion in the interests of high quality fulfillment of the tasks of combat training and solution of the problems of performance of service by officers, unifying military collectives, fighting against negative phenomena, instilling the culture of international relations, providing for international indoctrination of all members of military collectives, and maintaining close working and personal contacts and mutual relations with the local population.

11. In its activities the Officers' Conference constantly foresees measures directed at instilling in officers the combat traditions of the Soviet Armed Forces and their military unit, it regularly conducts functions in museums and rooms of combat glory, it organizes trips to historical places of the combat and revolutionary glory of the Soviet people and the USSR Armed Forces, and it promotes restoration and maintenance of monuments to fallen soldiers near the stations of the military unit.

It ensures participation of members of the Officers' Conference in military-patriotic upbringing of the young, including students in general education schools and vocational-technical schools, and students of tekhnikums and VUZes, and in publicizing among them the officer's profession and the military acts of heroism of the Soviet people and their armed forces in the Great Patriotic War and in the performance of international duty by servicemen, it provides assistance in preparing them for admission to military educational institutions, and it provides them with military-professional orientation.

12. In regard to the principal problems of the performance of service by officers, the Officers' Conference:

- a) reviews nomination of officers as candidates for training in military educational institutions on the

basis of the personal results achieved by officers in combat and political training, as a means of carrying out certification conclusions, and on the basis of applications submitted by officers. It provides assistance to officers in preparing for admission to studies, and to officers studying by correspondence in military and civilian educational institutions;

- b) in accordance with plans for replacing officers serving in the troops who are temporarily stationed abroad and in locales of the USSR for which specific terms of service have been established, with regard for the family status of officers and the health of their families and with regard for the different geographic regions in which they had served previously and recommendations of medical workers, the Officers' Conference reviews replacement candidates and draws up specific proposals to be submitted to the unit command for a decision;
- c) it reviews the leave time utilized by officers in the previous year, and on the basis of current combat and political training measures, the need for maintaining constant high combat readiness in the unit, and its replacement plans, it determines recommendations for the leave time of officers in the forthcoming year, with regard for the therapeutic, health improvement and cultural needs of the officers and their families, it reviews the wishes of officers in regard to participation in sanatorium and health resort treatment, and it provides them with tourist passes on the basis of the limit established for the unit;
- d) it reviews the names of officers submitted for early promotion and for promotion to one rank higher than that foreseen for the official position occupied, on the basis of conclusions of the certification commission, the results of combat and political training, the personal participation of officers in public life, and their moral countenance;
- e) it discusses proposals to nominate officers for state awards and honorary titles on the basis of an assessment of the personal contribution made by officers to successes attained in combat and political training, to maintenance of high combat readiness of the troops and to mastery of complex combat equipment, and for courage and valor displayed in the performance of military duty;
- f) it examines proposals to lengthen the term of officers in active military service on the basis of the conclusions of the certification commission and proposals of Cadres organs, proposals on early discharge of officers from the Army and Navy in connection with the unsuitability of their use in peacetime military service, and proposals to discharge officers from active military service in connection with the impossibility and unsuitability of further duty by officers granted a longer term of service;
- g) it organizes and conducts celebrations honoring officers in connection with their successes in official activities, with presentation of state awards and honorary and military titles and with promotions, ceremonies accepting young officers as members of the Officers' Conference, celebrations associated with

noteworthy events in the family life of officers, and farewell ceremonies for officers, generals and admirals departing for a new place of service, into the reserves or into retirement.

13. The Officers' Conference instills in officers a cultured approach to organizing their personal life, it publicizes a sober way of life, it fights against harmful habits, and jointly with other public organizations it delves into the problems of material, personal, medical and commercial support to officers and their families. It provides assistance to new officers in the military unit in learning their new jobs, in fitting into the collective, in initial accommodation, in acquiring housing for them and their families, and in providing employment to the wives of officers and other members of their families.

By decision of the Officers' Conference, a voluntary permanent and one-time monetary fund may be created out of contributions by members of the Officers' Conference in order to provide material assistance to needy officers, to implement particular measures and for other reasons; such a fund is expended by decision of the Officers' Conference. The amount of the contributions and the procedures for making them are determined by a general conference of officer Cadres. In addition the monetary fund of the Officers' Conference may be supported by assets allocated from the military unit.

14. The Officers' Conference conducts measures which would instill a love of nature in officers and their families and protect the environment. Jointly with the command, it organizes leisure time, cultural and educational functions and other forms of collective rest for officers and their families.

On the event of anniversaries of the military unit, holidays and other solemn occasions concerning the Officers' Conference, comrades' meetings and evenings of relaxation open to the families of officers and guests may be conducted, with regard for the wishes of its members.

Members of the Officers' conference participate in creating and improving the facilities of cultural and educational institutions, sports facilities and other places of organized rest of officers and their families. They may voluntarily donate works of art and literature, personal works of amateur creativity and collections to the cultural fund of the Officers' Conference.

The appropriate working groups may be created under the Council of the Officers' Conference in order to solve organizational problems concerned with conducting mass-participation cultural functions and with the leisure time of officers and their families.

15. The Officers' Conference is empowered to review the following at a general conference of officer Cadres or at a meeting of the Council, on its own initiative as well as on the initiative of its individual members:

- conflicts between officers;
- cases of insulting and tactless behavior;

- cases of undermining the authority and personal merit of an officer;
- negative acts by officers (conceit, pretentiousness, arrogance, coarseness, boot-licking, servility etc.);
- abuse of official position;
- violation of military discipline and an officer's ethics;
- cases of manifestation of social injustice in relation to officers;
- cases of unworthy behavior by officers at work, in the family and in public places, and other matters.

16. Measures of social influence may be implemented against officers by the Officers' Conference for violations they commit:

- comradely criticism;
- comradely warning;
- public censure;
- adoption of the decision to require an officer who has committed a particular misdeed to make a public apology before the Officers' Conference and before the insulted person;
- suspension from membership to the Officers' Conference for a period determined by a general conference of officer Cadres, but not more than six months.

III. The General Conference of Officer Cadres

17. The general conference of officer Cadres:

- examines problems associated with instilling qualities in officers such as honor and merit, friendship and comradeship, closeness to people, modesty, faithfulness to an officer's word, initiative and responsibility, mutual exactingness and demandingness, and love for the profession of a Soviet officer;
- discusses petitions by members of the Officers' Conference concerned with social security and justice in the performance of military service and in solution of Cadres problems;
- examines cases of unworthy behavior by officers affecting the honor and merit of the Soviet officer and the officer collective, and makes decisions on them and on cases in which officers are insulted and their worth is diminished;
- discusses the role and place of officers in solving the problems of raising combat readiness, combat training and reinforcement of military discipline in the unit;
- discusses problems associated with the military-political situation, the situation in the country, international events, development of the USSR Armed Forces, and the authority and conditions of service of officer Cadres;
- gives audience to individual officials and to executives of various public commissions in matters of interest to officers.

18. Problems brought up before a general conference of officer Cadres are discussed under the conditions of glasnost, comradely criticism and self-criticism. Each officer is entitled to speak on the essence of problems under discussion. Any actions directed at suppressing criticism and limiting free speech and discussion and criticism of orders of commanders and superiors are

prohibited. In certain matters the conference may ask commanders and superiors to provide explanations of decisions they make.

19. Decisions of the General Conference of Officer Cadres are made by open ballot, and they are assumed to be adopted if more than half of those present at a conference vote for them. Decisions may also be adopted by secret ballot at the demand of the majority of members of the Officers' Conference.

Proposals and recommendations of the Officers' Conference are subject to review within a month by the command of the military unit.

20. Decisions of the General Conference of Officer Cadres on matters within the competency of the Officers' Conference are binding upon all officers, and they are brought to the awareness of the entire officer community, and to the extent applicable, to the rest of the Cadres of the military unit. Commanders of military units are obligated to account for decisions of the Officers' Conference and take steps to implement the resolutions it adopts. In the event that the commander of a military unit disagrees with a decision of the Officers' Conference, this matter is examined by a senior superior in the presence of the commander and the Council of the Officers' Conference or its representative.

IV. The Council of the Officers' Conference

21. The Council of the Officers' Conference guides itself in its practical activities by decisions of the General Conference of officer Cadres and by the missions facing the officer Cadres and the military unit as a whole, as well as proposals submitted at the initiative of the officers.

The Council of the Officers' Conference:

- prepares and reviews matters subject to discussion at a General Conference of officer Cadres, and implements and monitors fulfillment of decisions adopted by the conference;
- does individual work with members of the Officers' Conference on a day-to-day basis, invites officers to meetings of the Council, at which their opinions and proposals on observance of the honor and merit of a Soviet officer are voiced, and points out deficiencies in their work;
- helps to uproot cases of bureaucratic behavior, infringement of the legal rights of officers and their unjustified accusation for deficiencies in service, and it makes an effort to mobilize officers to upgrade their ratings, and to prevent traffic accidents involving official and personal transportation, and other violations;
- in its meetings the Council examines letters, petitions and proposals submitted to the Officers' Conference, and receives officers in regard to personal matters;
- participates in monitoring the work of military trade institutions, mess halls and other personal service facilities servicing the given military unit in order to improve support to officers and their families;

- participates in solving problems associated with granting officers and their families passes for treatment in sanatoriums and preventive hospitals, for vacation homes, for vacation hotels, for tourist bases and for tours of our country;
- together with the women's council it examines problems concerned with the morale in the families of officers, plans and discusses measures associated with improving work with the children of officers, renders assistance in the work of parent committees and pedagogical collectives of schools of general education in educating school-age children of servicemen, makes regular visits of officers' residence halls and the families of officers, and shows an interest in their life and personal matters;
- encourages officers to improve residential buildings, the territory of the military post, athletic fields and children's playgrounds;
- together with the administration of cultural and educational institutions of the military unit (garrison), it determines and discusses measures to improve cultural services and the esthetic and ethical education of officers and their families; organizes discussion of the latest creative literature and radio and television programs;
- supports the traditions of military rituals associated with important events in the lives of officers (arrival in the unit, promotion in rank, presentation of awards and titles, farewell ceremonies upon departure from the unit, etc.).

22. The Council of the Officers' Conference adopts all decisions by open ballot. A decision is said to be adopted if not less than two-thirds of the members of the Council present at a meeting vote for it.

23. Upon expiration of the term of its powers, the Council of the Officers' Conference reports on work done before a General Conference of officer Cadres. At each regular meeting the Council informs the General Conference on its work, on measures to fulfill decisions of a previous conference, on actions taken in regard to proposals and critical remarks stated at such a conference, on fulfillment of its decisions, and on the reaction of officers subjected to measures of public influence.

V. Obligations and Rights of the Chairman of the Officers' Conference, the Chairman of the Council of the Officers' Conference and Members of the Officers' Conference

24. The Chairman of the Officers' Conference is obligated:

- to direct the activities of the Officers' Conference aimed at unifying officer collectives, developing friendship and troop comradeship in them, and solving other problems associated with the life and performance of official responsibilities of officers of the military unit;
- to participate in all functions conducted by the Officers' Conference, and in implementing plans and decisions, to show concern for strengthening the

authority of the Council of the Officers' Conference, and to provide material and other resources within the limits of its possibilities;

- to constantly study and know the needs and moods of the officer community;
- to take specific steps against persons suppressing criticism stated at a General Conference or engaging in persecution for such criticism, and inform the Officers' Conference on measures it adopts;
- to make decisions and provide assistance to the Council of the Officers' Conference in implementing measures associated with honoring leading officers presented state awards and honorary titles and receiving early promotions, and officers discharged into the reserves or retired after faultlessly serving active military duty.

25. The Chairman of the Officers' Conference has the right:

- to determine and approve the agenda of the Officers' Conference and maintain correspondence in the name of the Conference;
- upon coordination with the Council of the Officers' Conference, to update the work plans of the Officers' Conference with regard for suddenly arising tasks and for the conditions of the daily activity of the military unit, and when necessary, to convene General Conferences of officer Cadres and appoint auditing commissions to inspect the material and financial resources of the Officers' Conference.

26. The Chairman of the Council of the Officers' Conference carries out his work under the guidance of the Chairman of the Officers' Conference in accordance with the decisions adopted at a General Conference of officer Cadres and at meetings of the Council of the Officers' Conference.

The Chairman of the Council of the Officers' Conference is obligated:

- to draw up the work plans of the Officers' Conference, to discuss them in the Council, and to submit them for approval to a General Conference;
- to organize preparation and conduct of meetings of the Council of the Officers' Conference to discuss current problems pertaining to the activities of the Officers' Conference; to work purposefully jointly with members of the Council to implement decisions adopted at General Conferences of officer Cadres and at meetings of the Council, and to ensure their unconditional fulfillment by all members of the Officers' Conference;
- to support implementation of measures in the Officers' Conference;
- to receive visitors who are members of the Officers' Conference and their families on personal matters;
- to conduct individual discussions with members of the Officers' Conference, especially young officers, on the example they set in fulfilling military duty and personal behavior, and to show an interest in their needs and wishes concerning improvement of the work of the Officers' Conference. To show concern for the professional development of graduates of military

educational institutions, and to actively participate in the sponsorship movement;

- to establish and constantly maintain interaction with political organs, with party, Komsomol and trade union organizations, and with local party and soviet organs;
- to monitor the accounting and expenditure of the monetary fund of the Officers' Conference. To constantly delve into matters of material, medical, commercial and personal support and cultural services to officers and their families;
- to appear before members of the Officers' Conference not less than once a year with a report on work being done by the Council of the Officers' Conference;
- to inform the Chairman of the Officers' Conference on work being done on a monthly basis.

27. The Chairman of the Council of the Officers' Conference has the right:

- to participate in the work of the permanent certification commission, to bring up matters before the command concerned with the social security of officers and their families and with justice in the performance of military service and in solving Cadres problems;
- to conduct special meetings of the Council of the Officers' Conference when necessary;
- to give instructions to members of the Council and members of the Officers' Conference concerned with fulfilling decisions adopted by a General Conference and by meetings of the Council, and with organizing functions conducted by the Officers' Conference.

28. A member of the Officers' Conference is obligated:

- to value his membership in the Officers' Conference, and to show concern for and fully support its authority;
- to strictly observe the Soviet officer's code of honor³;
- to participate in all measures conducted in the Officers' Conference, and unconditionally fulfill all of its decisions and instructions of the Council of the Officers' Conference;
- to set the example in observance of military discipline and of the established rules of behavior at work and in public places;
- to assist in every way possible in creating an atmosphere of mutual respect, comradeship and a careful attitude toward the authority of each officer in the officer collective, and in instilling a sense of respect for seniors, closeness to one's subordinates and full concern for them;
- to maintain close ties with the Cadres of the subunits, and to personally make an effort to maintain a healthy moral atmosphere in the military collectives and prevent improper mutual relations between servicemen;
- to render assistance to the command and the Council of the Officers' Conference in strengthening collectivism, comradeship and mutual assistance among officers and their families, and in uprooting negative phenomena in the officer milieu;
- to personally participate in efforts to publicize the combat traditions of the USSR Armed Forces and the military unit, and in military-patriotic work among the public, especially the young;

—to work constantly to improve one's political, professional and legal knowledge and to expand general theoretical and cultural outlook;

—to show constant concern for creating a strong and healthy family and for raising children, and to provide assistance to pedagogical collectives and parent committees of schools of general education in educating and raising schoolchildren.

29. A member of the Officers' Conference has the right:

- to freely express his opinion on any matter examined in the Officers' Conference. To express his opinion at General Conferences of officer Cadres and criticize any member of the Officers' Conference for shortcomings and omissions in work and in personal behavior. In the event of suppression of criticism or persecution for it, to submit a written complaint to the Council of the Officers' Conference;
- to submit oral or written petitions on personal matters to the Officers' Conference. To submit a complaint to the Chairman of the Officers' Conference in the event that he disagrees with a decision adopted by the Council of the Officers' Conference in relation to him;
- to request the Officers' Conference or its Council to verify justifications on the basis of which the unit command subjects him to material liability;
- in the event that his honor and merit are insulted and diminished, an officer has the right to seek the protection of the Council of the Officers' Conference;
- to attend General Conferences of officer Cadres and meetings of the Council of the Officers' Conference when petitions, complaints and requests submitted by him and his misdeeds are examined;
- to invite his relatives, friends and acquaintances to cultural and educational functions with the permission of the Council of the Officers' Conference.

30. When necessary, and with regard for the unique features of the military unit's activity, the Officers' Conference may draw up and seek the approval of a General Conference of officer Cadres for particular rules and individual documents regulating the activities of the officers' conference of the military unit corresponding to the goals and principles contained in this Interim Statute.

31. When necessary, the chairmen of officers' conferences may conduct meetings in formations, major formations, branches of troops and armed services of the USSR Armed Forces by decision of the command of formations, major formations, branches of troops and armed services of the USSR Armed Forces, and on the scale of the USSR Armed Forces as a whole, by decision of the USSR minister of defense, in order to discuss problems of importance to the armed forces, to generalize work experience and to draw up recommendations on activating the work of officers' conferences in the military units. The norms of representation and the schedule of such meetings of chairmen of officers' conferences are determined by the appropriate command.

VI. The Officers' Comrades' Court of Honor

32. In accordance with a resolution of the Officers' Conference, the comrades' court of honor examines:

- misdeeds and violations of moral and ethical rules soiling the honor and merit of an officer, including ones not associated with fulfillment of the responsibilities of military service;
- misdeeds possessing the characteristics of crimes, if the military procurator or Chairman of the military tribunal turns cases involving such acts over to an officers' comrades' court of honor for examination;
- disputes involving civil law and property claims between officers involving a sum of up to 100 rubles, if the parties to the dispute consent to its examination in an officers' comrades' court of honor.

33. An officers' comrades' court of honor reports on its activities to the Officers' Conference not less than once a year and upon expiration of its term.

Members of an officers' comrades' court of honor who fail to justify the trust of the collective may be recalled prior to expiration of their term by decision of a General Conference of officer Cadres.

34. An officers' comrades' court of honor guides itself in its work by the Statute on the Comrades' Court of Honor in the USSR Armed Forces.

Footnotes

1. Here and subsequently in the text, "officers" implies generals, admirals, and officers, if the term is not otherwise specially qualified.

2. Officer Cadres of separate companies are included in the composition of the Officers' Conferences of units stationed near these companies.

3. An attachment to this Interim Statute.

'Code of Honor of the Soviet Officer'

90UM0310B Moscow KRASNAYA ZVEZDA
in Russian 13 Feb 90 First Edition p 2

[Text] With a sense of pride and honor at the moment of my commissioning as an officer, I voluntarily accept the sacred responsibility to defend the interests of my motherland—the USSR, and consciously accepting the tasks and obligations imposed on a Soviet officer, I solemnly declare that I will:

- selflessly serve my motherland—the Union of Soviet Socialist Republics, always be ready to rise to the defense of the socialist fatherland and the peaceful labor of the Soviet people, and to be faithful to the military oath and my military duty to the end, proudly bear the lofty name of a Soviet officer, value the trust shown in me, and multiply the glorious traditions of our armed forces, formations and units;
- strengthen combat readiness, order and military discipline in every possible way, conscientiously fulfill

official obligations, continually improve my professional knowledge and skill, persistently master equipment and weapons entrusted to me and the art of commanding personnel, and always maintain good bearing and wear my uniform neatly;

- affirm international brotherhood and troop comradeship, exactingness and justice, maintain mutual respect, friendly relations and unity in the officer collective, set the example for subordinates in all things, show concern for them, and protect their honor and personal merit;
- stubbornly master the knowledge and accomplishments of world and Soviet culture, and respect and revere the customs and traditions of indigenous nationalities at the place of my military service;
- refrain from conceit and arrogance, and abuse of the rights granted to me, be honorable and modest, principled and noble, preserve my faithfulness to word and deed, defend and strengthen highly moral family relationships, and express contempt for manifestations of cowardice, egoism and self-seeking morality;
- accept with due understanding the just demands imposed upon me by commanders and chiefs and by the Officers' Conference for violating this Code of Honor of the Soviet Officer, and do everything to restore my good name, merit and honor as quickly as possible.

I solemnly promise before my comrades to always carry the name of the Soviet officer high.

Ministry Criticized on Costs of Dachas Outside Moscow

90UM0447C Moscow OGONEK in Russian No 13,
Mar 90 pp 17-19

[Article by V. Sergeyev: "Dacha Privileges in the Light of Glasnost"]

[Text] The military encampment in Arkhangelskoye settlement outside Moscow has seen many things in its time, as have, as a matter of fact, the majority of such encampments and settlements. Disorder and inconvenience, endless shortages of the most necessary things, and lack of comfort. Problems, problems. Social and everyday. All manner of problems. Potholes and bumps, and broken up asphalt on dirty roads, crowded school classrooms, a chronic lack of workers at construction sites that cannot be completed for many years, over-filled kindergartens.

By the new year of 1990 new misfortunes had arrived. A dormitory for medical workers was not turned over on time, and they, apparently, will still be in the position of poor relatives for a long time to come. Repair of the museum is dragging on. It is not known when or whether there will be a club in the settlement. There is no Pioneer Home, place for work with young people, or place for a veterans' soviet, and there are a rather large number of veterans in the settlement.

Do you think that the higher ups forgot about this settlement? Far from it. And it acquired notoriety for precisely this reason. Regrettable notoriety.

Several years passed since the gates closed here behind the last visitor to the nationally known country estate museum. And gradually, one after another, estates of a different kind began to appear, belonging to high officials of the USSR Ministry of Defense, under the jurisdiction of which this military settlement belongs.

Magnificent cottages in "Dacha Field," Gorki-6, and Barvikh grew up on the fabled preserve lands, with a speed unbelievable for our country. The reproachful gazes of their neighbors, tormented by a lack of everyday amenities, and the dissatisfaction of the residents of the settlement, were not taken into account. "The desire to build comfortable 'villas' and 'palaces' at public expense," states Major-General (Ret) G. Kozlov, and Colonel M. Savchenkov, deputy secretary of the Settlement Territorial Party Organization, in a letter to the USSR People's Control Committee, "became for the Ministry of Defense leadership a mandatory addition to their position, which is displayed every time there is a change of leadership."

Several critical articles have been published regarding this in a number of central and local newspapers. Television has come out with a condemnation of the dacha epic.

Responding to the newspaper publications, former serviceman A. Klushin, a resident of Moldavia, in an appeal to the chairman of the USSR Supreme Soviet Commission For the Examination of Privileges, asks: "Where is the social justice? Where is the conscience of these bureaucrats? To build themselves dachas at state expense for hundreds of thousands of rubles, when at the same time their subordinates are in a state of poverty? These people must answer for everything according to the law." Many indignant letters on this topic were received at the central soviet and party organs, and the USSR People's Control Committee.

On the instructions of the leadership, I also was involved with some of them. I had to travel, check, and see with my own eyes those ill-gained objects, called state dachas, over which, as a matter of fact, a noise was raised that has not quieted down to this day, although seemingly this question was resolved for once and for all at a session of the above-mentioned USSR Supreme Soviet Commission.

Yes, the Ministry of Defense also made some steps toward recognizing the errors committed: The settlement was promised social transformations; it was proclaimed that one of the private residences constructed would be turned into a kindergarten; the free construction by a military construction organization of a private dacha in the center of the settlement, which was unprecedented in effrontery, intended for G. Molchanov, an officer from one of the prestigious directorates of the ministry, has been halted.

But the people want more. And with justification. They want to know the complete truth about the construction machinations, and not just part of the truth. They want to know the names of all the guilty parties in this, and face to face. They want to see with their own eyes the owners of the dachas. They even intend to meet with them for an honest, frank discussion. Only the latter, for some reason, do not particularly aspire to do this. And, finally, having become familiar with the draft CPSU Central Committee platform, which comes out against "any unlawful privileges and benefits, and for complete glasnost in this," they want to know what manner of such privileges have been granted to Soviet generals, if they are allowed to have not only free dacha estates, but also servants and security. And perhaps even some other things.

People write and write. In response there is silence. Since I have already touched upon this topic, allow me to tell about the troubling secret of the privileges of these highly placed comrades, and at the same time share my own observations on this score.

The history of this question in the Ministry of Defense goes back to the prewar years, when bastions of Stalin's administrative command system and authoritarianism were consolidated, including in the Armed Forces. In 1941, by resolution of the USSR Council of People's Commissars, it was decided, from an estimate by the People's Commissariat of Defense, to allocate 5,000 rubles annually in contemporary prices to maintain dachas for military district and front commanders, chiefs of staff, and chiefs of the political directorates of a number of military districts and the Far Eastern Front. In 1946, by a regular government resolution, this benefit was extended to all military districts and groups of forces. And four years later, by order of the USSR Council of Ministers, it was decided to expend 1,500 rubles per year each for maintaining and servicing dachas allotted to the families of marshals and generals who had been killed or died. From 1954, on instructions of Marshal of the Soviet Union N. Bulganin, they began to allocate 5,000 rubles for each dacha of such officials of all the fleets.

In 1956 Marshal of the Soviet Union G. K. Zhukov, then USSR Minister of Defense, reduced expenditures for maintaining dachas in the military districts to 2,000 rubles per year. And, according to USSR Council of Ministers resolutions of 1960 and 1962, it was decided to allocate 5,000 rubles each for maintaining the dachas of marshals of the Soviet Union A. M. Vasilevskiy, A. I. Yeremenko, G. K. Zhukov, I. S. Konev, V. D. Sokolovskiy, S. K. Timoshenko, K. K. Rokossovskiy, and F. I. Golikov, who had been released from their duties.

In subsequent, one-time USSR Council of Ministers decrees in 1964, 1977, 1979, 1981 and 1985, the circle of people enjoying these privileges was expanded. Five thousand rubles were allocated to maintain the dachas of marshals of the Soviet Union, and 3,000 each for all others.

From this excursion into the past it is apparent that the country has no legal regulation of this question. And, in general, it is not necessary to expend the people's money through government resolutions; it is also possible through one-time directives. And it is also possible through decisions by the chiefs. For example, in 1978, on instructions of then Defense Council Chairman L. I. Brezhnev, the amount of the subsidy given to the Chief of the Main Political Directorate was increased from 3,000 to 5,000 rubles, and in 1989 the same sum was established by the USSR Ministry of Defense to maintain the dacha of General of the Army P. Lushev.

It is also apparent that from 1964 through 1985 the number of persons enjoying such privileges increased markedly. The impression was created that they greatly feared offending any of the high army and navy officials. Therefore, dachas to all. And money to maintain them.

Today there are 73 such dachas in Moscow Oblast alone for the leaders of the USSR Ministry of Defense central apparatus. The families of deceased generals and marshals live virtually free, and every year up to 300,000 rubles or more are spent to maintain the dachas. And in the other military districts, in the fleets, and in the armed services? And throughout the entire country? So far no one has counted.

Besides monetary expenditures, there is a considerable diversion of labor resources. These include members of the civilian population, compulsory service military personnel, warrant officers and officers. You will agree, how can one get along in such a dacha without security, stokers, plumbers, drivers, repairmen, and communications men? And even more so without a housekeeper, yardkeeper, and a gardener? And they all have to be paid.

In 1981 it was established by government order that if expenses for maintaining a dacha exceeded 3,000 rubles the rest was paid by the person using the dacha. This procedure was most grossly violated in the USSR Ministry of Defense. When making up the estimate of expenses, which was approved by the ministers of defense, only payment for communal services and the wages of some of the personnel were counted, in order to fit into the sum of the allotment. All other payments were related to a Ministry of Defense estimate for other categories of expenditures, and persons using dachas did not have to pay anything.

And how much is spent for capital repair of these dachas? Restoration and other efforts? This is a separate line in the ministry estimates.

Public buildings in this same Arkhangelsk await repair for decades, and there are not enough residences for officers and warrant officers. Obviously it is much more important to maintain the leaders' dachas in a state of constant shine and grandeur.

Here is a document of 31 May 89, signed by Lieutenant-General N. Gryaznov, chief of the Ministry of Defense's Main Billeting-Maintenance Directorate, and others,

and approved by the Deputy Minister of Defense for Construction and Billeting of Troops, Colonel-General N. Chekov. Citing the 1981 USSR Council of Ministers order (we will return to this again), it proposes that greenhouses, a swimming pool, a boiler room, a protective barrier, and so forth, be built for four dachas of highly placed senior officials, for a sum of approximately a half million rubles, to be paid for from funds allocated for capital repair. In 1988, during the reconstruction and repair of only one dacha, coded as "Object No 10" (according to official documents), before General M. Sorokin, Ministry of Defense chief inspector, was settled in it, plans were to expend more than a half million rubles. Only the complaints raised about this scandal by citizens forced the expenditures to be curtailed to 343,000 rubles. Some 341 square meters of area, nine rooms—for a family! Marble, granite, walnut plywood, woods, a pond, two or three hectares of land, etc.

The former dacha of former deputy minister of defense for construction and billeting of troops, Marshal N. Shestopalov was no smaller and no worse. It had been repaired in its time, and without stinginess. However, soon after Shestopalov left his post and replaced the dacha, his creation, the former one, was taken away. This was done in order to free a place for the construction in the most picturesque corner of Gorki-6, of a still more beautiful and costly one, a dacha, an object which at the present time has been given number "1." Who will give such a costly housewarming in it? No doubt it is a state secret.

The document signed by N. Chekov and N. Gryaznov assures us that everything is lawful, and that there have been no violations. It follows from this that all the construction of dachas on the fabled fields is being carried out based on the instructions of the USSR Council of Ministers in 1954, and the already mentioned 1981 instructions, in accordance with which the Ministry of Defense was supposedly authorized to build in Arkhangelskoye 35 official dachas for high command personnel, costing 45,000 rubles each. On 1 June 1989 31 dachas had been built. And from the accounting department of the purchaser it was reported to us that this pleasure cost 3.7 million rubles. There is no secret; everyone sees all this and knows. Before it was a secret from the people and the control organs, and from the same Council of Ministers, which issued the order and forgot to monitor how it was being fulfilled.

And if it had not forgotten, it would have seen that they simply covered themselves by counting on the absolute lack of controls. In the 1964 order there is not a word about authorization for the construction of dachas. And in the later decisions agreement is given for constructing up to 35 official dachas costing 40-45,000 rubles each (besides the cost of the furniture and dishes) in the 11th Five-Year Plan for army generals, marshals of the force components, and admirals of the fleet. The construction of official dachas is to be carried out within the framework of living area norms, and the sizes of land parcels. We note that construction not of 35, as comrades

Chekov and Gryaznov write, but "up to 35 dachas" is authorized. And not in our time of maximum economic burden, but "in the 11th Five-Year Plan," when the budget was in a bit better shape, and crisis and shortages were not agitating the country.

Although, even in the 11th Five-Year Plan everything was not so smooth. Although it was a time of stagnation, some procedure still existed. It was necessary to confine oneself to 45,000 rubles. But, control then was even weaker than it is today. During our actual check, with the participation of M. Stakhanov, former deputy chief of the Control and Inspection Administration, USSR Ministry of Finance, on 26 January of this year on site, by representatives of the Billeting-Maintenance Directorate in Moscow, and the Ministry of Defense Administrative Directorate, not 31 dachas were presented, as stated in the document, but a total of 18 standard private residences. The rest could not be found. Strange. A dacha is not a needle.

And what follows from this? If we divide the 3.7 million rubles spent by 31 dachas, the cost of one is 122,000 rubles. And if we divide it by the 18 actually found private residences, the cost of one rises to 210,000 rubles, almost five times more than authorized by the government.

Thus, before the start of perestroika 18 garden houses were built, costing a total of 3.7 million rubles. In the last years of 1988 and 1989, with reference to the same 1981 Council of Ministers instruction, which in our difficult time seemingly should no longer be in effect, the construction of four more luxurious private residences is being undertaken. According to the directive by Comrade Chekov, there existed only the corresponding decision of the Minister of Defense for this construction. There were no other resolutions about spending money appropriated for defense for such purposes. Who this time are to be the owners of the dachas? Generals V. Arkhipov, M. Moiseyev, and K. Kochetov, who are newly arrived in the central apparatus of the ministry. Initially plans are to spend up to 350,000 rubles for each dacha, not counting utilities, engineer support structures, and service. But circumstances changed, and today these expenditures amounted to something a little more than 800,000 rubles. This is without the accompanying structures. At the same time, in the area of the military sanatorium in Marfino a facility called "The Woodsman's Cottage" is being built. The modest "cottage" will cost approximately 118,000 rubles.

In the opinion of some builders, the amounts are greatly understated, and the actual cost can be learned only by conducting test measurements. However, representatives of the People's Control Committee and the Ministry of Finance have not even set foot near here—what measurements! Even a photographer trying to take a picture of Dacha No "1" was chased out of the dacha area by Officer N. Ryzhko, under the pretext that the higher ups had banned photographing such "military" facilities.

So, what are these dachas that are being so painstakingly concealed from us? Yes, nothing special. Well, two story brick private residences. Well, living room, hall, dining room, kitchen, servants' room, several bedrooms, bathrooms, and toilets. Central heat from specially built boiler rooms, hot and cold water, telephones. What is so surprising, haven't you seen Western movies?

No less significant are accompanying facilities: all kinds of economic units, passageways, greenhouses, garages, etc., in some of them, which also costs a considerable amount. At Dacha No 1 a separate free-standing swimming pool is being built. A sauna has been built at General of the Army M. Moiseyev's dacha, next to the reception house. And reconstruction of the utilities and boiler room alone cost the state more than 700,000 rubles.

In order to legitimize such expenditures, Comrade Chekov requested in a letter to Yu. P. Batalin, former USSR Council of Ministers deputy chairman, authorization for construction of four dachas costing 150,000 rubles each, and Batalin agreed. Illegal? Batalin explained that he gave authorization for the construction, but not for an increase in the cost estimate. And this is the "legal justification."

I am not denying the right of Soviet military leaders to well-deserved benefits. As long as this does not turn into the trite formulation that he who has more rights is right. I am not denying privileges, but they must be based, first of all, on law approved by the people. And those privileges that we confronted are given by something else.

No matter how much representatives of the Ministry of Defense try to blame us, and at the same time also the authors of newspaper articles, for undermining the authority of the Armed Forces, many see the reason for the decline in authority. The continued construction of luxurious dachas causes dissatisfaction on the part of the population with the leadership of the Soviet Army, and at the same time with party and soviet organs. And the newspaper articles are just a reflection of this process.

The political and legal consciousness of the residents of Arkhangelskoye settlement were healthily raised. And it is necessary to take this into account. And not only the minister of defense must do so. The local authorities are also at fault for what is taking place. If the Krasnogorsk City Soviet Ispolkom had not closed its eyes to a great number of unlawful actions, or even not justified them, everything would have been different.

When our photographer attempted to photograph Comrade Moiseyev's dacha, the officers present pointed away from it. There towered a palace three or four times larger and many times more luxurious. According to them retired party leader M. Solomentsev is living there. If this is so, it is also time to talk about this. But it is not only a matter of the poor example being set by higher ups.

It is also time for them to answer for their sins. This is what the residents of the settlement are seeking. They are insisting on an end to the scandalous activities, and that

the guilty be brought to accountability. Representatives of the USSR KNK supported the proposal to turn the private residences into a children's hospital, a children's combine, and a preventive clinic for war and labor veterans.

The solution to the problem is also found in strengthening control over the activity of the Ministry of Defense. And this control should not be considered an infringement on the stability of the departments. But the doors of our defense departments, unfortunately, are still tightly closed to control organs. Take as an example the same much talked of ANT, when it began to be understood that people's control had never before concerned itself about these branches.

And the fact is that at the end of 1989, when the "dacha matters" were being "put in order," they anticipated paying for leasing dachas according to rates taken from those.. of the 1950s? And who will pay the rest?

And there is no need to think that the Ministry of Defense knows nothing about all this. The judge advocate's office already raised the question of gross violations of law in the construction and maintenance of dachas for the leadership, but this just hung in the air.

The guilty happily escape responsibility, and are awarded their next ranks. In the worst case they receive a reprimand. In the most extreme case discharge from the army—for health reasons.

And no other measures of influence are possible, given the current state of control in our state. It is nothing but rather bad, and in general does not meet today's requirements. And what about the activity of all the various inspection groups, the revision apparatus, and general supervision by the procurator's office over legality in the economic sphere?

It is not so much that control is bad, as that it is powerless. What measures can it take with respect to the Ministry of Defense? None. And meanwhile the unlawful actions of this ministry continue. They are continuing to build "Object No 1" to this day, with its splendid swimming pool—at the public's expense. The darkness surrounding the other dachas has also not dispersed.

The fear exists that the questions sharply posed to the Ministry of Defense will hang in the air, like the already announced transfer of one of the private residences on "Dacha Field" to a kindergarten. It is being delayed under the pretext that this transfer "may halt construction of a kindergarten for 240-300 children, which is planned to be completed in the next two years." This was reported in MOSKOVSKIYE NOVOSTI on 18 February of this year.

Anything can happen, if all of us do not stop, finally, considering our people to be extras in military and non-military games. And if we do not think correctly about the present reconstruction of the control organs—of our already long not silent people.

COPYRIGHT: "OGONEK", 1990.

Legal Response to Desertion, Draft Evasion

90UM0440A Moscow SOYUZ in Russian No 12,
19 Mar 90 p 4

[Interview with Col Justice A. Korotkov, deputy chief of the Investigative Directorate of the Main Military Procuracy, by IZVESTIYA correspondent N. Burbyga under the rubric "A Hot Subject": "He Left the Service? Then He is a Deserter..."]

[Text] We know that serving in the army is a constitutional duty. More than 6,500 people evaded the draft in the nation as a whole last fall alone, however. And recent events in the Transcaucasus and other republics has produced the phenomenon of servicemen of the indigenous nationalities going AWOL from their military units. What has been the reaction of the law-enforcement agencies? IZVESTIYA correspondent N. Burbyga posed this question to Col Justice A. Korotkov, deputy chief of the Investigative Directorate of the Main Military Procuracy.

[Korotkov] The problem of evading the military draft has recently indeed grown worse. It is being dealt with not by legal military experts, however, but by the territorial law-enforcement agencies. I can only say that individuals evading the draft are held criminally accountable under Article 80 of the Criminal Code of the RSFSR. The first part of the article provides for imprisonment for one to three years; the second, in which accountability is increased, one to five years. It is applied to individuals who simulate illnesses, submit false documents or resort to deliberate bodily injury.

With respect to those who go AWOL from their unit or station, this is an extremely gross violation of the military oath and a military crime. Criminal charges are filed in all cases. Competent agencies search for the individuals, and when their whereabouts is determined they are subject to arrest. A decision is then made as to whether to send the criminal case to a military tribunal.

What do they face? Individuals who go AWOL from their station or who do not return from leave, from a medical facility, and so forth, for a period of three days but no more than a month, are punished by imprisonment for one to five years under Article 246 of the Criminal Code of the RSFSR and similar articles of other Union Republics. This article also contains Point v, which states that if the period of AWOL from the unit exceeds one month, the punishment is increased to imprisonment for three to seven years.

[Burbyga] Even when the serviceman has gone AWOL from his unit or station at an appeal from certain unofficial organizations or individuals acting on their behalf?

[Korotkov] Of course. I should mention the fact that in the Transcaucasus and Baltic republics the unofficial organizations take certain run-away servicemen under their "protection," which is against the law and in no way relieves them of criminal liability.

The Law on Universal Military Duty has not been repealed. It is still in effect. And the agencies of military justice will take steps to see that it is absolutely observed, despite any sort of local enforceable enactments which are counter to the All-Union laws.

I would also point out that not just the unofficial organizations, but sometimes even friends and relatives of the servicemen, encourage them to go AWOL from their station. The assumption of these people that they will be able to conceal their sons from justice is at the very least naive. Such actions are condemned not just by state and law-enforcement agencies but also by the parents of sons who conscientiously fulfill their military duty.

This is what alarms us, though. "Dodgers" of military service speak at mass meetings in Vilnius, for example, and are received by the republic government. What are essentially deserters roam the streets of Yerevan and Baku, and local authorities and law-enforcement agencies do nothing.

[Burbyga] And what do you do in such cases?

[Korotkov] I am thoroughly convinced that the problem will not be resolved with punitive measures alone. We are just working on the symptoms. We must create in the society a climate of aversion to evasion of the service and going AWOL from the unit. Everyone needs to understand once and for all that serving in the army is the duty and obligation of every Soviet citizen.

Current Draft, 1992 Navy Experiment with Two-Year Term

90UM0447A Moscow KOMSOMOLSKAYA PRAVDA
in Russian 3 Apr 90 p 2

[Article by Correspondent V. Filin: "Volunteers on Contract"]

[Text] It seems that the addition of 50 rubles to officers' pay is not the only innovation in the life of the Armed Forces.

One of the first presidential edicts changed the procedure for callup of USSR citizens for military service and discharge into the reserves. The guide to action for local organs of government and military commissariats now will be the USSR Council of Ministers resolution. The USSR Minister of Defense merely announces in his order the decision made by the government. With respect to the border and internal troops, the USSR KGB chairman and the USSR minister of Internal Affairs do the same thing.

Everything else remains as before. Twice a year, at practically the same times, some will have to be fitted for a military uniform, and others to hang it in the closet for

memory's sake. The previous problems also remain. As before the General Staff of the USSR Armed Forces determines and presents the figure on numerical requirements for inductees.

Col Gen G. Krivosheyev, deputy chief of the General Staff, reported that approximately half of the inductees today cannot serve in the army "for reasons of health." Due to this it is not possible to fill all positions in the Armed Forces.

The numerical strength of the military construction troops remains at its former levels. Almost 300,000 fellows are involved in the heavy, dirty and lowest paid work. Among them, every year 50,000 inductees have criminal convictions. "This is our misfortune," noted G. Krivosheyev. According to him, the disbanding of the military construction detachments has been put off for now at the request of certain ministries and departments, in particular USSR Gosplan. So here it is. This means that semi-unpaid labor, in other words almost slave labor, is being retained.

It appears as if only the public and the military do not care for the activity of the military construction troops, who "serve" 20 union ministries. Thirteen military construction detachments are working in Moscow alone, although it is clear to everyone that this has no legal sanction. But it is convenient to the ministries!

The universal military service obligation has become non-mandatory not only for students. (Apropos of this, according to General Staff data, out of 172,000 students discharged into the reserves, 7,500 decided not to continue their studies.) The figure 500 does not make an impression against this background. But, it is this number of inductees annually that do not go into the service because they have notable creative capabilities. At the request of the USSR Ministry of Culture, artists, musicians, and poets are freed from service by a special General Staff order. Col N. Yermilov, Moscow city deputy military commissar, emphasized that the capital has one third of the total number of talented young people.

They, of course, do not cause problems. But, behind them are prominent, and not so prominent sportsmen, whose service on sports teams only remotely resembles such. Only metal workers, lathe operators, bricklayers, and other workers and peasants do not get on such "lists." Is a law coming out that covers everyone who has drawn a breath?

The callup in the Baltic Republics and the Transcaucasus, in the year of the 45th anniversary of Victory, appears to be problematic. In Lithuania, for example, on instructions of the republic minister of communications, the system of notification linking the republic military commissariats to one another has been removed. In a spot check of military commissariats in Lithuania, from

60 to 90 percent of the inductees showed up at assembly points, but some of those who previously left their units voluntarily returned to their places of service.

To the KOMSOMOLSKAYA PRAVDA question on prospects for putting an article into the law concerning alternative service for those who refuse to enter the army for religious, political, or other reasons, a USSR Ministry of Defense representative gave a simple answer: The problem is an artificial one. The number of "refusniks," in his opinion, is not worth speaking about seriously. Although he readily acknowledged that in principle we have alternative service: in military construction detachments, railroad troops, military sovkhozes, subunits servicing hospitals. Is there no problem?

In the future there will be experiments in the army. First, it is anticipated that from 1992 sailors will serve two years, as is the case in the ground forces. Second, from 1991 a variant of "contract service" will be selectively tested in the Navy, and then will also be implemented in the other force components and Armed Services (in the internal troops of the USSR Ministry of Internal Affairs this is already law.) Service "on contract" will give the inductee the opportunity to choose whether he will serve two years of compulsory service, or three years on contract, but for money—from 150 rubles and up. In this case it will be mandatory to obtain some military specialty in a half year.

So we await the results of the experiment. For now it looks as though renewal will effect only the soldiers' albums, where excerpts from the newspapers with their discharge orders are pasted.

Opposition to Military Assistance With Harvest

90UM0447B Moscow IZVESTIYA in Russian 4 Apr 90
MORNING EDITION p 2

[Article by N. Mikhaylov: "Should a Battalion Collect the Harvest?"]

[Text] By the start of the harvest, temporary collection and transport battalions are created in many military districts of the country. The military, it is true, protest against fulfilling tasks unusual for the Soviet Army, but an order is an order, and they do not discuss it.

Last summer I worked in a motor transport battalion in the Red Banner Siberian Military District. The battalion began to be organized in Omsk on 26 June. (In accordance with a Council of Ministers resolution, military commissariats in Tyumen, Omsk, Tomsk, and other Siberian cities are required to send out notices to assemble people. Drivers, metal workers, welders, cooks, medics, and even film projectionists are involved in the harvest.) A tent camp, with everything required for over a thousand men was set up long before the start of the collection. Forming up and receiving motor vehicles usually takes three or four days, but in our case it dragged out for three weeks. All this time the men languished in 30° (C) heat, in forced inactivity—slept

and tanned for days. Finally, in mid-July the battalion set out for Altay. But there, it turns out, they were not waiting for us. There was not yet anything to collect. At the end of July was the first work trip. A month had passed from the day the motor vehicle battalion was created until real work began. But the work itself was stupidly organized. A large part of the vehicles were sent to transport construction materials and coal, although it is recommended that military personnel not be used for these purposes. For this reason all goods were recorded as agricultural.

The main structural unit in the collection is the motor transport platoon, made up of ZIL-131, Ural-375, and ZIL-157 tow trucks. The bodies of the Ural trucks and the GAZ-66 are poorly adapted for transporting agricultural goods, and it would be better to refit the tow trucks to work with dumping semi-trailers. The mighty enterprises of Omsk and Tyumen are fully capable of doing this. Only it is necessary to carry out this work in winter.

The practice of manning the platoons in accordance with Armed Forces regulations also seems doubtful. After all, they are being organized for work, and not for combat operations. Why prepare food under field conditions when every sovkhoz has a dining hall, and why take along tents and other property if the stationing area is known at the time of dispatch?

The majority of military reservists called up into the motor transport companies view this trip as a vacation. There is fishing, bathing, and dances in the village club.

The initiative, begun in the long ago years of ruin, when Red Army assistance to the economy was truly needed, became a marked sign of the recent "time of stagnation." But, it is not being added to under conditions of economic accountability and self-financing of enterprises, from where the military reservists are called up, and where 100 percent of their pay is retained for them.

Undoubtedly vehicular assistance at the harvest is needed, but let this be specialized vehicles, dump trucks. It is impermissible when out of a hundred men in a motor vehicle enterprise only half are directly involved in the harvest.

And then I return to my own sovkhoz, the rains begin, and again, just like 20 years ago, the sovkhoz milk float dragged a powerful Kirovets to the rayon center. What money this costs the sovkhoz, the state, and the people! And somewhere nearby, in numerous garrisons, high trafficability motor vehicle equipment used only two or three months a year stands idle.

Recently, as I happened to be at the oblast military commissariat, I heard about the formation of a new battalion. Apparently, again someone is preparing to "go to battle," now already for Harvest-90.

Statement of Lithuanian SS Presidium on USSR Draft*90UM0554A Vilnius EKHO LITVY in Russian
3 Apr 90 p 1*

[Statement by the Lithuanian Republic Supreme Soviet Presidium signed by V. Landsbergis, Vilnius, March 31, 1990: "Statement of the Lithuanian Republic Supreme Soviet Presidium"]

[Text] The leadership of the USSR intends to begin an illegal draft of Lithuanian Republic young men into the Armed Forces of the USSR. Through these actions, that state will commit a crime with regard to the Hague (1907) and Geneva (1949) Conventions it signed, it is violating universally recognized human rights, it is aggressively violating Lithuania's sovereignty, and it is ignoring and violating Lithuania's laws.

The Lithuanian Republic does not possess the physical force required to protect its citizens from such violence except the capability to appeal to international organizations and the world community, having once again appealed to the Government of the USSR to begin negotiations on the entire complex of interrelations or on individual issues—the status of the Army, military service, and other specific problems.

The authorities of the Lithuanian Republic, while assessing the circumstances listed above, do not prohibit citizens of Lithuania from serving in the Army of another state. It would not do to rebuke them. An oath taken under conditions of violence does not commit our young men to anything.

The Lithuanian Republic is striving and will strive in every way possible to resolve this complex problem forced on it, however, not having the capability to repulse force with force or to protect our young men from forced conscription into the Armed Forces of a foreign state, it retains the right for each young person to individually determine how to act—to remain in Lithuania and build his life in accordance with the laws of the Lithuanian Republic or to subordinate himself to the demands of occupation laws.

Lithuanian Republic Supreme Soviet Chairman V. Landsbergis

Vilnius, March 31, 1990

Termination of Draft in Lithuania*90UM0554B Vilnius EKHO LITVY in Russian
5 Apr 90 p 2*

[Unattributed Article: "On the Draft and Service in the Army"]

[Text] As a result of the Lithuanian Republic Supreme Soviet's March 14 1990 resolution that terminated the activities of USSR Ministry of Defense military commissariats located on the territory of the Lithuanian

Republic and the Lithuanian Republic Supreme Soviet order to gorispolkoms and rayispolkoms to consider it their duty to not participate in the conduct of the 1990 Draft into the Soviet Army and to terminate the commissariat's management services and financing associated with this, released workers are being placed under the jurisdiction of local self-management organs.

In connection with numerous requests arriving from Lithuanian young men about problems associated with service in the Armed Forces of the USSR, on April 4, 1990, the Lithuanian Republic Council of Ministers sent a telegram to the USSR Minister of Defense General of the Army Yazov, USSR Deputy General Procurator and Main Military Procurator Colonel General Katusev, Leningrad Military District Commander Colonel General Yermakov, and to commanders of military units which states that the Lithuanian Republic Supreme Soviet adopted a resolution on March 12, 1990 that suspended the Law of the USSR on Universal Military Obligation on the Republic's territory. Thus, citizens of the Lithuanian Republic who leave military service and return home cannot be considered to be deserters and cannot be held criminally liable. The telegram states that questions associated with the interests of the defense of the USSR and Lithuania, including future performance of military service by Lithuanian young men in the Armed Forces of the USSR, will be resolved through negotiations between the Governments of the USSR and the Lithuanian Republic.

Military Commissariats Under Draft Suspension in Lithuania*90UM0558A Vilnius EKHO LITVY in Russian
20 Apr 90 p 3*

[Article by M. Filipenkov: "What Will the People's Fate Be?"]

[Text] "As we all know," writes Panemunskiy Rayon Military Commissar Ye. Parshin, Kaunas, "the Lithuanian Republic Supreme Soviet has adopted several resolutions affecting the Armed Forces of the USSR. In particular, it declared the USSR Law "On Universal Military Service" to be null and void and a resolution came out terminating the activities of USSR Ministry of Defense Military Commissariats located on Lithuanian territory." Ye. Parshin writes "We must only regret that until this time the USSR Supreme Soviet has not adopted a Law on Defense that could become the foundation of our work in the future. If we talk about the Law on "Universal Military Service," in essence its requirements on the Republic's territory have been canceled out by a Ministry of Internal Affairs order that allows a Lithuanian citizen to get a job, to register for a place to live, to go abroad, etc. without completing military registration. Thus, all paths linking a person subject to the draft with the Military Commissariat have been severed. Naturally, this places us in an awkward position."

"Of course," Ye. Parshin continues, "we will implement the draft. But complications might arise in connection with a boycott of the draft. Indeed, parents are not indifferent to the fate of Lithuanian young men-conscripts. They often address the same question to the Military Commissariat: "What should they do, what can we do?" People find themselves confronting a cruel choice: How to carry out hasty government decisions that have been unilaterally adopted, thus dooming their sons to the dock or else to submit to laws of [Soviet] Union significance, thus ending up in disfavor with local authorities. Is this a human tragedy? It is no laughing matter [to be] here against one's will..."

"And I still want to say this about one side of this issue," Ye. Parshin writes in conclusion. "In our Panemunskiy Rayon, there are about 1,000 pensioners, many of whom were participants in the Great Patriotic War. And many of these people are innocently suffering in their declining years. The current leaders for some reason are completely forgetting that Military Commissariats are responsible for a wide range of matters and issues aside from the draft. Even if we take pension processing. Or handing out every possible type of information or certificate. Indeed, life goes on. Someone has suddenly died or has become seriously ill and there is an urgent need to call someone home from a military unit. Who does this? The Military Commissariat. And who helps Soviet citizens search for those who have died or are missing in action? Once more it is the Military Commissariat. How can their activities be terminated thus deliberately dooming people to all sorts of trials and tribulations?"

Military servicemen S. Mazhyalis and A. Vituvis (Kalinigrad), Great Patriotic War participant N. Kovalev (Shyauliyay), S. Gavrilenko (Riga), V. Naumov and V. Katilene (Vilnius), I. Kashigin and N. Samoylov (Kaukas) and others are of the same opinion.

"Our city Gryazi in Lipetskiy Oblast," writes V. Vakulenko, "is famous for good traditions. Many of our enterprises have lasting ties with Lithuanian enterprises. I am sure that business and simple human contacts that have existed for as long as I can remember between our peoples will withstand all tests." The author writes further that a surplus armored personnel carrier was delivered to the local "Desantnik" [Airmobile Assault Trooper] Youth Club not long ago. A scorched soldier's medallion was discovered. At the boys' request, criminologists took on the job. They managed to partially restore the text: "Busheyka Virgi... from Lithuania...". Someone from Ryazan who served with Busheyka responded to the first article in the local press. "Virginiyus is alive," he reported. "I just don't know his address." The query rapidly spread throughout the Lithuanian Republic and it has now become known that BTR-70 Driver-Mechanic Virginiyus Busheyka was a member of a multinational subunit and actually participated in combat operations in Afghanistan. He who was there knows the value of a soldier's friendship. Having served his stint, Busheyka returned home to the village of Pazhechyay in Raseynskiy Rayon where he works at Aushra Sovkhoz.

"Desantnik" Club sent V. Busheyka a letter inviting him to visit Gryazi to meet [other] Afghan veterans. So, it is possible, in spite of all the vicissitudes at the present time, that the meeting is destined to take place. Everything depends on Virginiyus...

Crossing Water Obstacles in MT-LBV

90A10190C Moscow *TEKHNICA I VOORUZHENIYE*
in Russian No 12, Dec 89

[Article by Lieutenant Colonel M. Bobrov: "Fording Water Obstacles in the MT-LBV"]

[Text] Besides scheduled maintenance, a series of special preparatory operations are carried out before fording a water obstacle in an MT-LBV light multipurpose tracked combination prime mover-carrier with over snow and swamp capability.

First of all, inspect the [water] tightness (integrity) of the hatch covers on the bottom of the hull and their sealing gaskets, the condition of the rubber gaskets of the kingston valves and also the cleanliness of the forward and aft water intakes. Afterward, pump Litol-24 lubricant into the turn bearing clutches using a grease gun through a grease fitting (Figure 1). The turn brakes and the transmission stops must be adjusted and the bearing surfaces of the brake drums and the linings of the brake bands must be dry and without traces of grease.

We need to remember that brake slippage due to lubrication of the bearing surfaces unavoidably results in a loss of control of the vehicle while afloat, warping of the drums, and scorching of the brake band linings.

While inspecting the drive train, ensure that all plugs on support wheels, on the side transmission housings, and on the steerable wheels are securely fastened. After this, inspect the condition of the seals and the water tightness of the aft hatches, the fuel tank filler caps, and also the kingston valves. The transmission compartment fan casing covers and the air intake and heater exhaust pipe covers are closed.

While the vehicle is operating afloat, there is the possibility of water getting into and accumulating in the fan casing that could result in its break-down. Therefore, before fording a water barrier the access cover in the fan casing must be opened and the latch located on the side to the left of the driver's seat must be moved forward (Figure 2).

After carrying out these operations, install the air cleaner air intake extension tube, the radiator guard, and the hydrodynamic flaps and raise the wave barrier and secure it using clamps. Towing cables are removed from their securing locations and they are connected using a shackle. The eyelet of one towing cable is put on the hook of the hoisting chain device and a rope with a buoy is tied to the eyelet of the other after which the cables are laid down on top of the combination prime mover-carrier. The engine compartment, aft, and driver-mechanic hatches are closed and those on top of the hull are opened. While moving in calm water, the driver-mechanic's hatch is permitted to be kept open.

When approaching a water obstacle, open the plugs on the water discharge pipes and turn on the water pump. To do this, first set the minimally stable rpm's on the

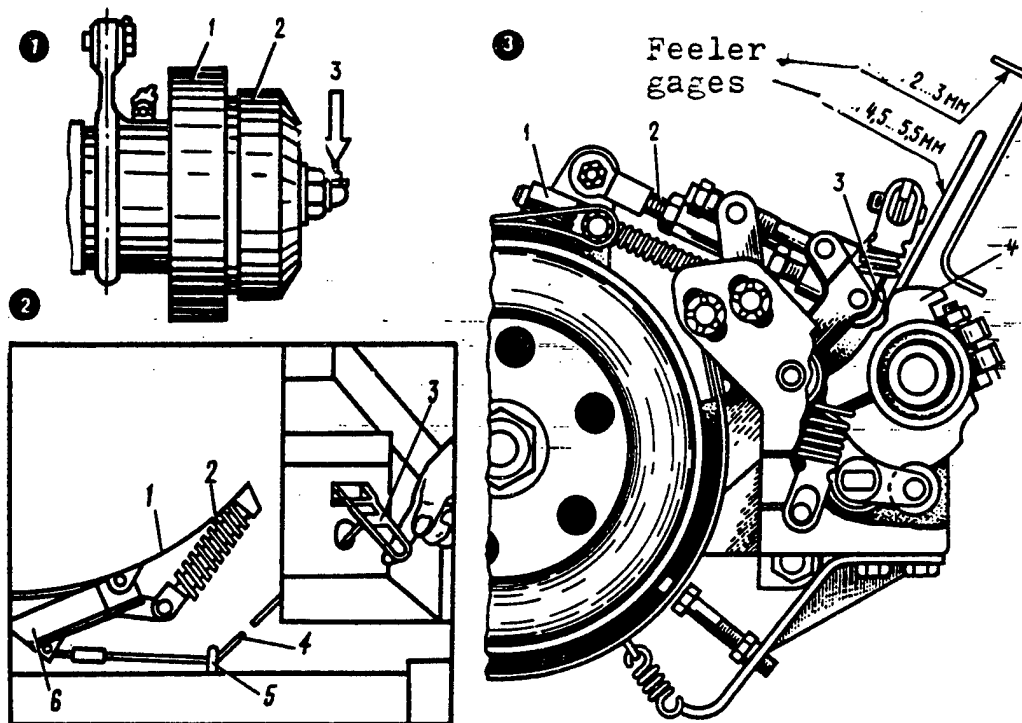
engine crankshaft, depress the clutch pedal and turn the ignition switch of the water pump back until it stalls. If the pump does not turn on, then it is necessary to smoothly let out and then again depress the clutch pedal and afterward to once again attempt to turn on the pump. Check its operating capability while the engine is running for the presence of air flow on the exhaust side of the discharge pipes. Remember that the water pump must be constantly turned on while moving afloat and that a short (3 to 4 seconds) smooth decrease in the engine crankshaft rpm's to an average [speed] with the simultaneous rapid switching off and smoothly turning on the clutch is recommended to accelerate the initiation of water discharge.

While preparing to ford a water obstacle, the driver-mechanic must have information about the slope and condition of the banks on the travel course, the nature of the ground in water entry and exit areas, and also about the location of shoals, undergrowth, swampy sections and other natural and manmade obstacles.

Entry into the water needs to be carried out carefully in first or second gear at a right angle to the shore line. If this is impossible, then approach the shore with the right side to avoid water falling into the fan cavity through the radiator louvers. Furthermore, the load in the vehicle body must not exceed 1,500 kg. Cargo must be equally distributed. After surfacing, in the event of a side roll or nose trim, the combination prime mover-carrier must be leveled by moving people or cargo on the vehicle bed to do this. You must remember that a side roll of up to one degree and aft trim of up to three degrees are permitted. Select a bank with no more than a 20 degree slope for entry into the water and a slope with no more than a 15 degree slope for exiting the water.

While afloat, move in second or third gear, smoothly changing engine crankshaft rpm's in order to prevent waves from breaking onto the vehicle and water from entering into the hull through open hatches. It is recommended that the combination prime mover-carrier be driven across the waves in rough water. You need to reduce speed to soften the blow during contact with a large frontal wave. Maneuvering the combination prime mover-carrier is carried out by moving the appropriate control lever into the first position without simultaneously reducing the engine crankshaft's rotational speed. When it is necessary to complete a sharper turn, moving the control lever into the second position is permitted but while strictly accomplishing the following operations at the same time. First, reduce the engine crankshaft rpm's and turn off the clutch and after that place the control lever in the second position while applying maximum force to it. After that, the clutch is turned on and rpm's are smoothly increased. Maintaining the control lever in the second position for no more than 30 seconds is permitted. Reduce rpm's to the minimum and smoothly return the control lever to the first position as soon as the vehicle begins to turn in the required direction.

Various MT-LBV Components



Key:

Figure 1. Turn Clutch.

1. Brake drum.

2. Drive drum.

3. Grease fitting.

Figure 2. Hatch cover control device.

1. Fan casing.

2. Spring.

3. Latch.

4. Cable.

5. Clamp.

6. Hatch cover.

Figure 3. Adjustment diagram of the gap between the brake lever pulley of the turning mechanism and the cam gap.

1. Adjustment screw.

2. Adjustment rod.

3. Brake lever pulley.

4. Cam.

Keep in mind that to avoid having the turn mechanisms malfunction when moving the lever from the second position to the initial position you must keep the lever in first position for no less than five seconds. Using this same control lever more than three times in a row while completing one turn is prohibited. The use of reverse is also permitted to maneuver while afloat. During turns, while remembering the combination prime mover-carrier's drift, return the control lever to the initial position somewhat earlier than when the turn is completed.

Obstacles encountered while afloat that may cause [you] to stop or turn the vehicle sharply to the rear (side) must be carefully negotiated to prevent water from entering the hull. If the vehicle has settled with its bottom on the obstacle, the vehicle must be placed into reverse and the vehicle must be carefully moved back. And afterward,

when it moves away from the obstacle, put it into forward gear and go around the obstacle without permitting a side roll.

If a real threat arises that the combination prime mover-carrier will be flooded, the driver-mechanic's hatch must be opened and the crew prepares to abandon the vehicle through the nearest hatches.

Exiting the water is carried out in first or second gear at a right angle to the shore line or from the left side. This prevents water from entering the fan casing through the louvers during a roll to the left side.

After negotiating a water obstacle, prepare the combination prime mover-carrier for movement on dry land: Remove the barriers, lower and secure the wave barrier into the traveling position, turn off the water pump and

close the water discharge pipes and, afterward, having opened the kingston valves, pour out the water that has accumulated on the bottom of the hull.

If it is necessary to continue moving immediately after exiting the water, then it is also possible to not remove the attachments for amphibious operations having only turned off the water pump and having installed the wave barrier in the traveling position. However, you must not forget that at the same time the hydrodynamic flaps may be damaged or lost.

Having accomplished the assigned mission, at the first opportunity, during a halt or at a maintenance facility, check to see if water has ended up in the engine oil, in the main and side transmission casings, or in the support rollers or steering wheels (lubricant and water is gray in color). If water is detected in the lubricant, it is replaced having washed out the casings with oil beforehand. Furthermore, inspect the operating condition of the "stop" [brake] lights, headlights, parking lights, rear lights and the horn.

When the combination prime mover-carrier's controllability is disrupted, inspect and adjust the free movement of the turn mechanism guide boxes and the gap between the cam (3) of the brake lever turn mechanism and the cam (4) (figure 3). The gap (4.5-5.5 mm) is set using adjustment screw no. 1 while keeping track of where the control lever is located in the first position.

MTP-A4.1 Operational Features

*90A10190D Moscow TEKHNIKA I VOORUZHENIYE
in Russian No 12, Dec 89 p 13*

[Article by Lieutenant Colonel A. Dokunin and Engineer A. Osadchiy: "MTP-A4.1: Operational Features"]

[Text] This technical assistance vehicle is designed based on the MAZ-537G saddle back prime mover. The crew of the MTP-A4.1 can render assistance to a driver (driver-mechanic, vehicle crew) to eliminate minor vehicle and special chassis malfunctions using onboard equipment, can refuel or replenish operating liquids, and can also provide movement and recovery of motorized vehicles on a march. Autonomous use is possible.

You can tow a vehicle that is stuck, make all necessary preparations to tow it, and transport it to the repair area using the recovery equipment and the tackle set. It also has instruments for radiation, chemical, and engineer reconnaissance of evacuation routes.

The tools and accessories required to conduct work to replace defective (damaged) assemblies and parts, and also to bring the damaged vehicle undercarriages to a transportable state are located on the work bench and spare parts kits are in a container. Fuel cans of gasoline, kerosene, coolant, and special liquids are placed on racks. Two 200-liter tanks are intended for oil and diesel fuel. Oil and fuel is dispensed using an MZA-3 unit transported in one of the vehicle bed boxes. Automobile

tire tubes, spare gaskets in packages, an oxygen tank from a metal cutting set, and an RVM-2 mine detector are located in three other boxes. All equipment besides the boxes is located under the canvas top. The spare tire of the base chassis is carried on the technical assistance vehicle's bed on a special hoist.

The tackle equipment set is located in the area between the wheel wells. It is used to remove wedged-in portions of a damaged vehicle while preparing it to be transported.

The technical assistance vehicle may be equipped with an R-107M radio transceiver to provide communication with an external subscriber, a "Vizavi" intercommunication system, and also with an electric megaphone.

The cabin is equipped with night vision devices, a VPKhR military chemical reconnaissance instrument, a DP-54 radiometer-roentgenometer, OZK troop protection kits, and binoculars. A DK-4D set is installed in the cabin for special processing of wheeled vehicles with diesel engines. Stuck vehicles are extracted using a base chassis 15 ton-capacity winch. There is a castor block in the tackle equipment kit to increase it to a 30 ton capacity. The technical assistance vehicle is fixed into the ground using spades installed on the boom of the transport device. When the boom is lowered to the ground, the spade is joined to the cross-piece's hooks with chains to provide the capability to bury it into the ground when the vehicle is backed up.

Having recovered a stuck vehicle, assess the nature of the damage to its undercarriage, its steering wheel and brakes and determine the method to transport it: Half-loaded or towed on stiff or flexible towing lines. It is more expedient to transport vehicles with damaged undercarriages, steering wheels, or brakes using the half-loaded method on a transport device located at the rear portion of the vehicle. Secure the tow cable either to the front or to the rear portion of the vehicle (depending on the location of the malfunctioning undercarriage assemblies). Furthermore, when possible move without jerking and at a speed that insures safety on turns and on the route's side inclines. Rapidly braking, especially on a winding road, is prohibited to prevent the towing vehicle and towed vehicle from piling up (contact between the transported and technical assistance vehicles). The total weight of a vehicle being transported by the halfloaded method should not exceed 45 tons.

Prevent the towing vehicle and towed vehicle from piling up when maneuvering in reverse. Furthermore, be guided by the onboard sound turn signal or by the signal given by the second member of the crew who must be located ahead of the vehicle in this case.

Hub-mounted rear wheels may be loosened when transporting a vehicle using the halfloaded method, especially heavy vehicles. Therefore, inspect the integrity of the hub nuts no less than after every 1,000 km of travel.

Tow vehicles with serviceable undercarriages, steering wheels, and brakes as a rule on stiff or flexible towing lines. One stiff towing line is tied to the canopy supports from the outside and the second on the frame installed on the opposite side of the canopy. The weight of a vehicle towed on stiff or flexible towing lines on dirt roads should not exceed 30 tons and, on hard surface roads—45 tons. Furthermore, the spade must be raised and joined to the support cross-piece with chains.

When transporting a BAZ special chassis that has towing hooks on a double stiff towing line, use 6944-393372 fixtures that are part of the technical assistance vehicle set and when towing a chassis with tie down clamps on flexible towing lines, use 135MB-3907080 fixtures from the chassis set. While transporting MAZ special wheeled chassis using the halfloaded method on a winding road (snow, ice, mud, etc.) and on inclines, turn the towing vehicle and towed vehicle while being especially careful and speed during a turn should not exceed 8 KPH.

When transporting or towing an unserviceable vehicle, secure it with a line that is lowered from the wheel bracket or bumper to the chassis members of the technical assistance vehicle.

When operating the technical assistance vehicle, remember to service it on time and to observe safety rules while accomplishing all types of work.

COPYRIGHT: "Tekhnika i vooruzheniye", 1989

T-64A Tank

90A10190E Moscow VOYENNYE ZNANIYA
in Russian No 12, Dec 89 p 17

[Article by Reserve Colonel V. Knyazkov: "The T-64A Tank"]

[Text] How do we begin the story about this 38-ton armored vehicle? Perhaps with its armament. Why? Well because the artillery and machinegun armament are the "calling card" of any tank's combat capabilities. Without them, it is transformed into an ordinary prime mover. It is true that it is a powerful panther, enclosed in steel, but nonetheless, it is a prime mover. And really you judge the qualities of a tank depending on its specific features for delivering weapons against the enemy.

Let us immediately point out: The T-64A's armament completely meets modern requirements. The basis of its armament is the 125 mm smooth bore cannon intended for destruction of the most important and dangerous targets in battle—tanks, self-propelled artillery pieces, other armored vehicles, and weapons, including ATGM's [Antitank Guided Missiles]. When necessary, the crew opens fire on artillery and mortar batteries and destroys enemy personnel. Therefore, the T-64A also has an "assortment" of ammunition that is sufficiently varied. Its combat load (37 artillery projectiles) consists of various shells, armor piercing, subcaliber, high-explosive fragmentation, and shaped-charge [projectiles].

The primary mechanisms of the tank cannon in principle carry out the same functions that an ordinary artillery weapon does. The differences are only structural. However, we must mention one specific feature in particular. We will talk about stabilization in two guidance planes, horizontal and vertical, that provide the capability to conduct aimed fire while moving, without stopping.

The tank weapon stabilizer—a highly accurate automatic adjustment system—is a "narrow" program that consists of preventing the sight's crosshairs from deviating from the aiming point during any tank movement. The gunner assigns the cannon's barrel its distinctive course—the line of aim and the stabilizer instantly memorizes it and fixes precisely in space. A special sensor senses this, generates a signal, and the stabilizing factor is formed instantly without allowing a break in sighting. As a result, the tank hull will swing and the barrel will not waver. I think everyone understands very well how much the tank crewman's combat work is made easier: The target does not jump in front of his eyes and the target caught in the crosshairs does not even stir but lies as if it is on a platter.

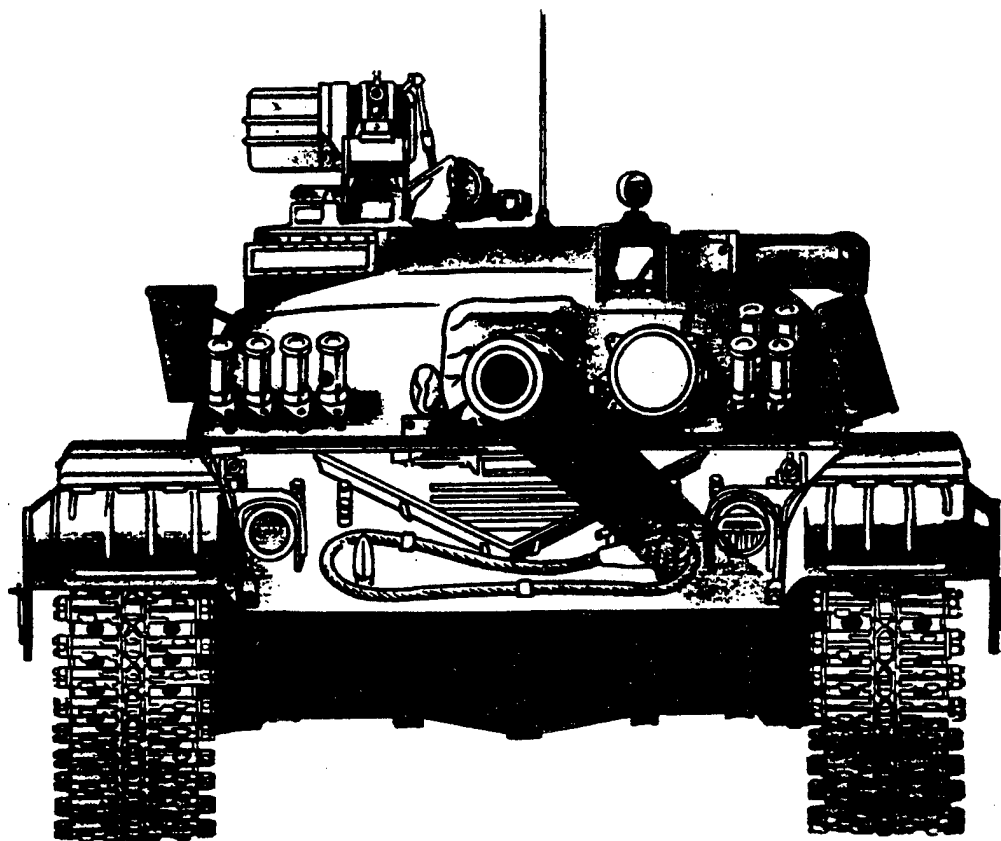
Look at the T-64A's cannon barrel: There is a noticeable cylindrical bulge like a swelling. This is the ejection device housing, more simply the ejector designed to remove powder gases from the barrel. Its main element is—a receiver, a circular chamber formed by the outer surface of the barrel and the housing. There is an inlet opening under it with a ball valve and angled openings uniformly drilled along the circumference in the barrel wall—a distinctive nozzle unit like in a missile.

Let us see how the receiver works while firing.

When the projectile passes the inlet opening, gases, having lifted up the ball, end up in the receiver. Then the pressure is reduced, the ball returns to its position, and gases begin to flow out through the nozzle unit toward the muzzle portion at a speed of approximately 0.5 km per second. An area of vacuum is formed behind the nozzle unit and the gases that have remained in the barrel also rush there. The "subtlety" of the design is also the fact that gases flow out of the receiver for 0.2 more seconds after the valve is opened which eliminates possible contamination of the combat compartment while firing.

The T-64A is capable of conducting fire both during the day and at night. Using the daytime sight, the tank crew can destroy targets at ranges of up to 2,500-3,000 meters. The enemy has only "to stick his head" out of a shelter, he is still three whole kilometers away (!) and, as they say, we have already "drawn a bead on him" and we open direct laying fire on him—the most efficient and effective [type of fire]. Furthermore, the projectile has a low-angle flight trajectory and it is as if it is creeping over the ground since it races up to a high muzzle velocity in the channel of the barrel: Shaped charges up to 905 meters per second and subcaliber—up to 1,800 meters per second.

Figure 1. T-64A Front View.



Based on the experience of the Great Patriotic War, we all know that tank combat operations were severely impeded at night. And if they executed a march, they moved slowly. Aimed fire was practically impossible. Modern optics changed the situation. The T-64A has infrared instruments (IR instruments) including an IR gunsight that provides the greatest fire aiming range at night of almost a kilometer.

And one other specific feature of the T-64A. It is equipped with a reloading mechanism. This device "carries" ammunition from the ammunition stowage area and loads it into the cannon. In essence, this is a compact robot-[ammunition] handler that carries out all operations precisely, efficiently, and steadily and allows the loader to be excluded from the tank crew which leaves three men in it—the commander, the gunner, and the driver-mechanic.

There are two machineguns on the T-64A. A 7.62 mm PKT (Kalashnikov Tank Machinegun) twinned with the cannon has a combat load of 2,000 rounds. There is a

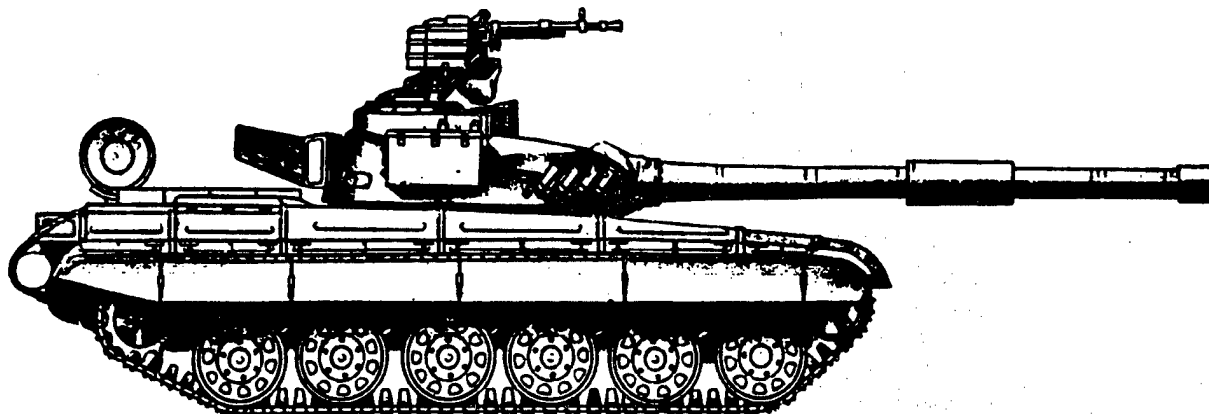
12.7 mm antiaircraft machinegun, a universal type that can conduct fire against both air and ground targets. Its combat load is 300 rounds.

Maneuverability is also a very important quality of a tank. This concept is complex and consists of mobility, off-road capability, and turning capability. Here much depends on improving the tracked propulsion and of course on the power plant. Incidentally, the tank's engine is capable of producing up to 700 horse power.

Mobility is characterized by the 35-45 KPH average travel speed on a dirt road, up to 50 KPH on a hard surface road, and maximum speed can reach up to 60 KPH. The T-64A's range (the distance that the tank can cover on one tank of fuel) while traveling on a dirt road is 360 km and it is 500-600 km on a hard surface road. The vehicle's fuel tanks carry 1,093 liters of fuel and 400 liters more are in barrels secured to the rear.

Turning capability. You can judge this by an indicator such as turn radius that is slightly less in the T-64A than in any wheeled vehicle: It is equal to the width of the

Figure 2. T-64A Side View.



tracks—in round numbers—three meters. The tank is actually capable of turning on a “dime.”

The T-64A's off-road capability is also highly rated. Tanks to modern tracked propulsion, it can move on loose sand and swampy terrain and can negotiate steep slopes and snow drifts. Although the tank is not among the amphibious types, it is capable of forcing significantly wide and deep water obstacles, moving along the bottom using OPVT—underwater kit for driving tanks submerged.

In battle, it is very important to disappear from enemy observation, to prevent him from having the possibility to conduct aimed fire, to hide our own maneuvering, and to camouflage ourselves or to get out from under fire with a jerk. There is a smoke grenade dispensing system on the tank to do this, there are launchers mounted on the main turret, four each on the right and left sides of the cannon barrel. They lay a thick smoke screen.

Since we have touched upon camouflage, a very important characteristic of the T-64A in connection with this is the height of the top of the turret. It is 2,170 mm. Experts say that such a tank has a low profile. Thanks to it, the vehicle is easily sheltered in terrain folds.

The T-64A is equipped with a modern nuclear [weapons] defense system navigation, communications, and fire suppression systems, and test equipment. In general, summing up the results, one can boldly state that the T-64A has great fire power and is reliable in the broadest sense of the word—from the armored hull to precise electronics, and is mobile and survivable.

COPYRIGHT: Izdatelstvo DOSAAF SSSR, “Voyen-nyye znaniya”, 1989

Readers' Questions on Sudayev Machine Pistol, BMP-2

90A10190F Moscow VOYENNYE ZNANIYA
in Russian No 12, Dec 89 p 16

[Readers' Letters to VOYENNYE ZNANIYA: “Ask and We Will Answer”]

[Text]

Sudayev Machine Pistol

Could you describe the Sudayev Machine Pistol(PPS)
[Machine Pistol]?

A. Gorbalenya, eighth grade student, Minsk

Soviet Designer Aleksey Ivanovich Sudayev designed this firearm during the years of the Great Patriotic War in blockaded Leningrad. The PPS-43 machine pistol underwent testing directly under combat conditions at the front and factories in the beleaguered city produced the first lots of them. Its design was accommodated to leading production methods—welding and cold forging.

During that period, the PPS-43 did not have any equals in lightweight and dimensions among machine pistols. It was equipped with a folding metal stock. It is 7.62 mm caliber, weighs 3.04 kg without a magazine, magazine capacity is 35 cartridges, firing rate is 600 rounds per minute, combat firing rate is 100-120 rounds per minute, and muzzle velocity is 500 meters per second.

BMP-2

What are the characteristics of the Soviet BMP-2?

V. Zheltonozhenko, Belgorod

The BMP-2 is in the inventory of motorized rifle sub-units and has high firing and operational capabilities.

The vehicle weighs 13 tons, maximum speed on a dirt road is 45-50 KPH, 65 KPH on a paved road, and it has a 600 kilometer range. The BMP-2 is capable of negotiating water obstacles afloat at a speed of 7 KPH. It is equipped with a 30 mm automatic cannon from which it can conduct fire both with single rounds and also automatically at a moderate (200-300 rounds per minute) or maximum (550 rounds per minute) rate of fire. Maximum range of aimed fire is 4,000 meters, direct firing rate on a target is 2-1,000 meters. A 7.62 PKT machinegun is twin-mounted with the cannon. Furthermore, the BMP-2 is equipped with antitank guided missiles.

The vehicle has a ten-man combat crew: A three-man crew (commander, driver-mechanic, and gunner-loader), and seven assault riflemen. The BMP's armor protects the soldiers and the vehicle's systems and nodes from bullets and shell fragments. It has a weapons of mass destruction defense system and also an automatic fire suppressant system. The crew operates a thermal smoke device for laying a smoke screen when necessary (Smoke screens can also be laid using special 81 mm grenades and six grenade launchers are mounted on the turret.

COPYRIGHT: Izdatelstvo DOSAAF SSSR, "Voyennyye znaniya", 1989

Preparing BTR-80 for Storage

90A10190A Moscow *TEKHNIKA I VOORUZHENIYE*
in Russian No 1, Jan 90 pp 26-27

[Article by Colonel A. Mosunov: "Preparing the BTR-80 for Storage"]

[Text] Armored personnel carriers must be placed in a technically serviceable condition and completely supplied with ZIP [tools and accessory kit] and standard equipment before being placed in storage. Therefore, the vehicles are carefully inspected and all discrepancies discovered during the inspection are eliminated prior to initiating completion of technological operations on placing into storage.

Vehicles that will be maintained in storage for up to one year must undergo mandatory TO-1 [Technical Vehicle Service-1] (regardless of length between overhauls) or the next TO-2. If the planned storage period is more than one year, TO-2 and additional work designed to prepare the vehicle for winter operation are conducted. The vehicle's body must be sealed in this case.

The additional work is caused by the BTR-80's structural features. Thus, utilization of a diesel fuel engine in the power system requires replacement of summer diesel fuel with winter [diesel fuel] with a solidification temperature of no higher than -45° C. Furthermore, after the

fuel has been drained from the system, start the engine and run it at average rpm's for 1.5-3 minutes to remove the remaining summer fuel.

Change the filter elements of the full-flow oil filter in the engine lubrication system, wash out the centrifugal oil filter, and change the oil. Drain out the old oil only after the engine has been warmed up and turned off. To do this, first unscrew the plug at the bottom of the vehicle under the engine crankcase, set a container under it, and then open the oil draining hole on the engine oil pan and, using a special gadget, drain the oil into this container. Remove the rest of the oil through the cock of the oil heat exchanger. Furthermore, having closed the oil drain hole in the oil pan and the cock on the oil heat exchanger beforehand, fill the engine crankcase with fresh oil through the oil filler [neck]. Then, start the engine and allow it to operate for two to three minutes. Four to five minutes after you shut off the engine, measure the oil level in the crankcase and fill it to specifications when necessary.

During all seasons, the engine coolant system on the BTR-80 is filled with 40 or 65 [to -40 or -65° C.] brand low freezing point coolant in accordance with the climactic zone of operation. If water without a corrosion inhibitor is used as coolant during the summer for some reason, the antifreeze is added only after the cooling system is carefully washed out. To do this, fill the [coolant] system with water and a ternary additive that serves as a cleaning solution instead of with clean water [alone]. Then start the engine and warm it up (with the heating system turned on) to a temperature of 80-90° C.

Remember that opening the radiator fill cap on a hot engine is prohibited since it will become impossible for a return overflow of displaced liquid in the expansion tank due to the decrease of pressure in the system. And this could result in its ejection later. Therefore, drain out the cleaning solution no earlier than two hours after stopping the engine when it has cooled.

After accomplishing this operation, close the drain taps in the manner indicated in the instruction tables. First, pour low freezing point coolant into the radiator fill neck using a funnel with a net filter. While closing the plug of the radiator fill cap, make sure that it is not touching the connection hose of the steam discharge pipe.

The expansion tank is filled with liquid to a level 10-20 mm from its bottom. Having closed all plugs and having made sure that there are no leaks on connections and from drain plugs, start the engine and let it run for three to five minutes. If necessary, add coolant to specifications. While accomplishing these operations, do not allow petroleum products to enter the coolant system since this results in foaming and ejection of coolant.

Remember that low freezing point coolant is poisonous. Therefore, strictly comply with safety rules when working with it. Siphoning coolant through a hose by mouth is categorically prohibited, you need to prevent

the possibility of it ending up in food or drinking water, and carefully wash your hands with soap after work.

While preparing the precombustion heater, blow the gas exhaust out of it using forced air and clean the residue from the electrodes and light isolator. Then make sure that the fuel heater works (by the heat of its chamber) and the heater as a whole. If necessary, wash the filters, [fuel] injector, and solenoid valve and carry out adjustments.

In the electrical glow plug device, clean the protective cylinder and the plug set and wash them in gasoline. Having reassembled the electrical glow plug device, verify its serviceability. To do this, having pressed the test light button on the driver-mechanic's instrument panel, verify that it is operating and that the glow plugs are serviceable. Furthermore, the discharge current should not exceed 30 Amps. At the same time, adjust the timing from the moment the electrical glow plug device is turned on until the test light comes on: For the first ignition under a positive air temperature, it should be

50-70 seconds and under negative [air temperature], 70-110 seconds. You can judge if there are glow plugs in the intake manifolds by their heat (to the touch, at a distance of 70-100 mm from the plugs toward the fan).

After conducting appropriate maintenance, the vehicle's hull is sealed with ZZK-Zu grease (apply it to the covers of all hull hatches, inspection covers, and plugs) and with cloth (Figure 1). Load 40 kg of silica gel through the [vehicle] commander's hatch and, using 1-1.5 mm diameter wire that you drop through one of the holes under the hatch cover securing bolts to dismantle the distributor box and hang the test sack. After this, close the commander's hatch and spread ZZK-Zu grease along its perimeter.

You must remove the weight of the hull from the suspension assemblies when placing the BTR-80 into storage for longer than a six month period. To do this, the vehicle hull is suspended (Figure 1) using two stable horses (Figure 3) that incidentally can be assembled in the repair shop. You need to strictly adhere to safety

Figure 1. Locations to glue hermetically sealing cloth:

1. Vehicle suspension stand.
2. Left side headlight and parking light;
3. Driver-mechanic vision device;
4. Horn, right side headlight, and parking light;
5. KPVT machinegun barrel;
6. Machinegun screen;
7. TNPT-1 vision device;
8. Turret race;
9. 902V system unit;
10. Hull hatches over the engine compartment.

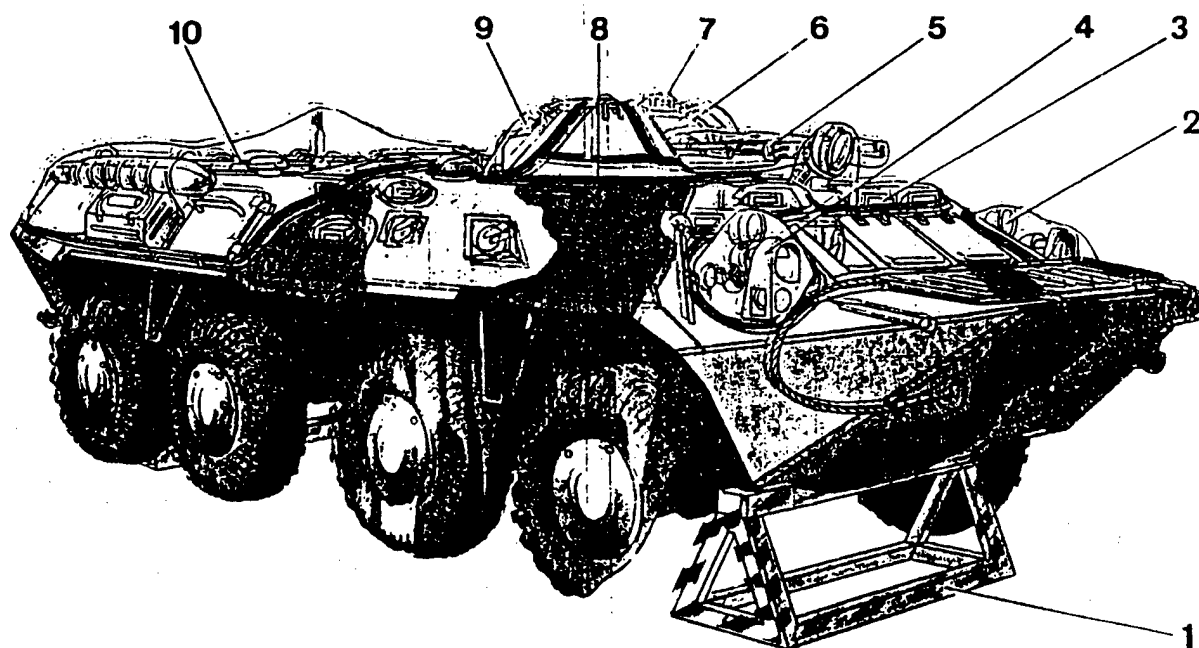


Figure 3. Horse Design.

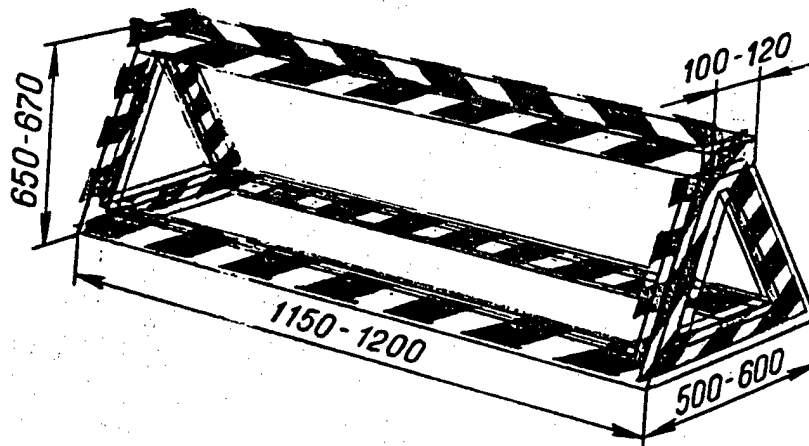
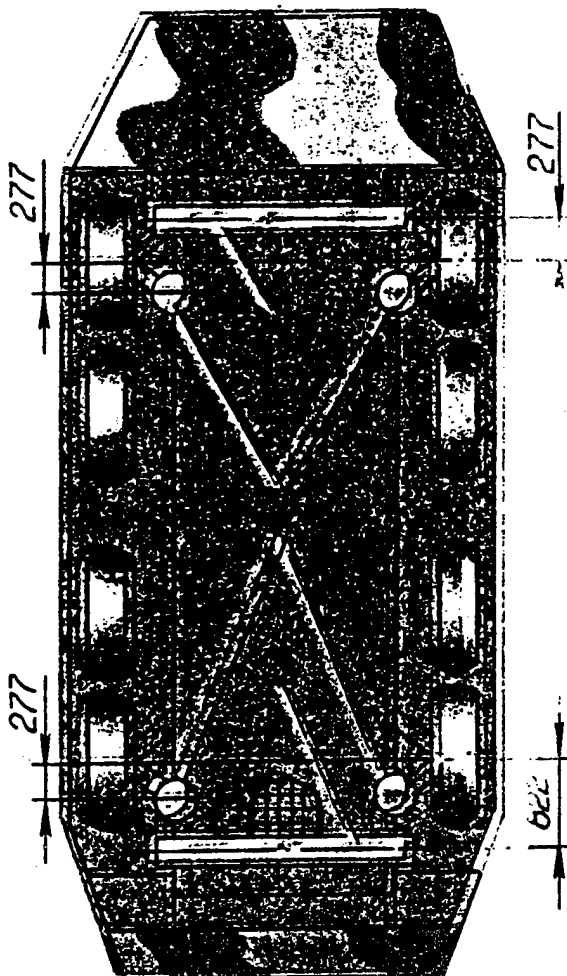


Figure 2. Horse and jack installation diagram when suspending a vehicle:

1. and 3. Jacks;
2. Horse.

front



rules. Thus, place the jacks and stands under them in a strictly vertical position and make sure that they are stable and smoothly raise and lower the hull without skewing.

Use two jacks and stands, two horses, and two support blocks to accomplish this operation. The floor under the vehicle must be level and have a hard covering. First, install support blocks under the front wheels and install the two jacks and stands under the rear portion of the vehicle (Figure 2). Then smoothly raise the hull until the rear wheels are completely free of the floor's surface, set horses under the rear mounting brackets of the lower suspension linkage and lower the hull onto them. Move the jacks under the front portion of the vehicle hull, raise it until the front wheels are no longer in contact with the floor and set the second horse under the front mounting brackets of the lower suspension linkage. Reduce the tire pressure in the suspended vehicle to 100 kPa (1 kgs per cm^2) and close the tire valves.

If the vehicle storage period will not exceed six months, it is permitted to not suspend it but to change the vehicle support points every 45 days by rotating the wheels 90° or by moving the vehicle approximately 90 cm in one direction.

COPYRIGHT: "Tekhnika i vooruzheniye", 1990

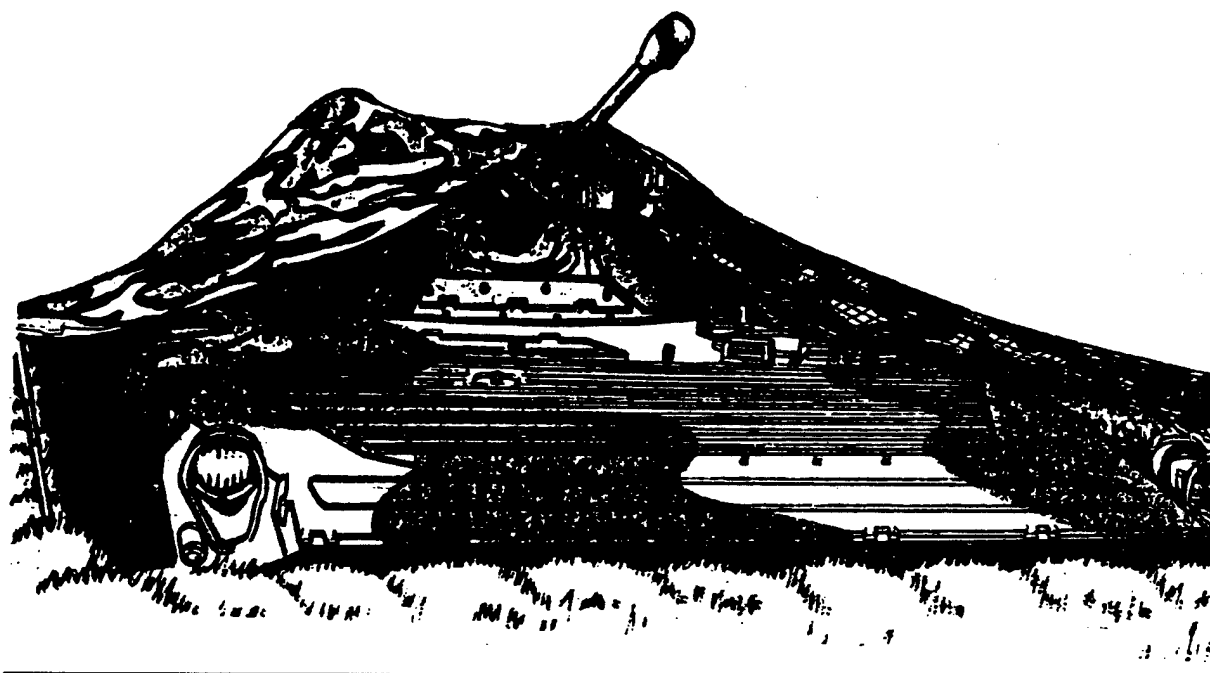
BMP-2 Camouflage Equipment

90A10190B Moscow *TEKHNIKA I VOORUZHENIYA*
in Russian No 2, Feb 90 pp 26-27

[Article by Major B. Shatilov and Soviet Army Employee L. Abrosimov: "The BMP-2: Operation of the Camouflage Systems"]

[Text] The BMP-2 camouflage systems include a camouflage net, a thermal smoke device, and the 902V smoke grenade launching system. As a rule, the net is employed while positioning the IFV [Infantry Fighting Vehicle] in a natural or manmade shelter (for example, in a vehicle pit). Its use in combination with terrain elements (grass, brush, or trees) and also with camouflage paint permits a combat vehicle to be quite reliably concealed from visual detection.

Figure 1. BMP-2 camouflage net.



The thermal smoke device is a reusable system. Its operating principle consists of atomized diesel fuel being injected into the exhaust gas stream. It rapidly evaporates and mixes with exhaust gases in the engine ejector discharge receptacle forming a steam and gas mixture which condenses into a thick fog (smoke screen) while being discharged from the ejector. The best smoke screen is obtained in calm weather or with a slight wind (up to four meters per second) and in the absence of rising wind currents.

Turning on the smoke generator is permitted only while the vehicle is moving and with a well-heated engine. If the engine is operating without a load, the amount of heat contained in the exhaust gases is insufficient for total evaporation of the fuel in the exhaust ejector. This may cause ejection of a significant portion of the unevaporated fuel into the air. Experience has shown that the best smudging is obtained while the IFV is moving in fourth gear when the engine crankshaft reaches 2,000-2,400 rpm's. Furthermore, coolant temperature must be no less than 90° C. The thermal smoke device switch on the driver-mechanic's central control panel is switched on to lay a smoke screen. Remember that it is possible to accumulate some unevaporated gas in the ejector and it may ignite during protracted operation of the thermal smoke device. Therefore, turning on the device for more than five minutes is not recommended. Operate the engine under a load for two to three minutes after smoke generation the remove unevaporated fuel.

If the engine suddenly stalls, the thermal smoke device switch must be turned off to prevent combustion of the

steam and gas mixture. After that, start the engine using the starter and operate the engine at 2,000-2,400 rpm's for two to three minutes. You can restart the device only after doing this. Turning on the thermal smoke device while operating the engine on T-1 or TS-1 fuel (GOST 10227-62) is categorically prohibited.

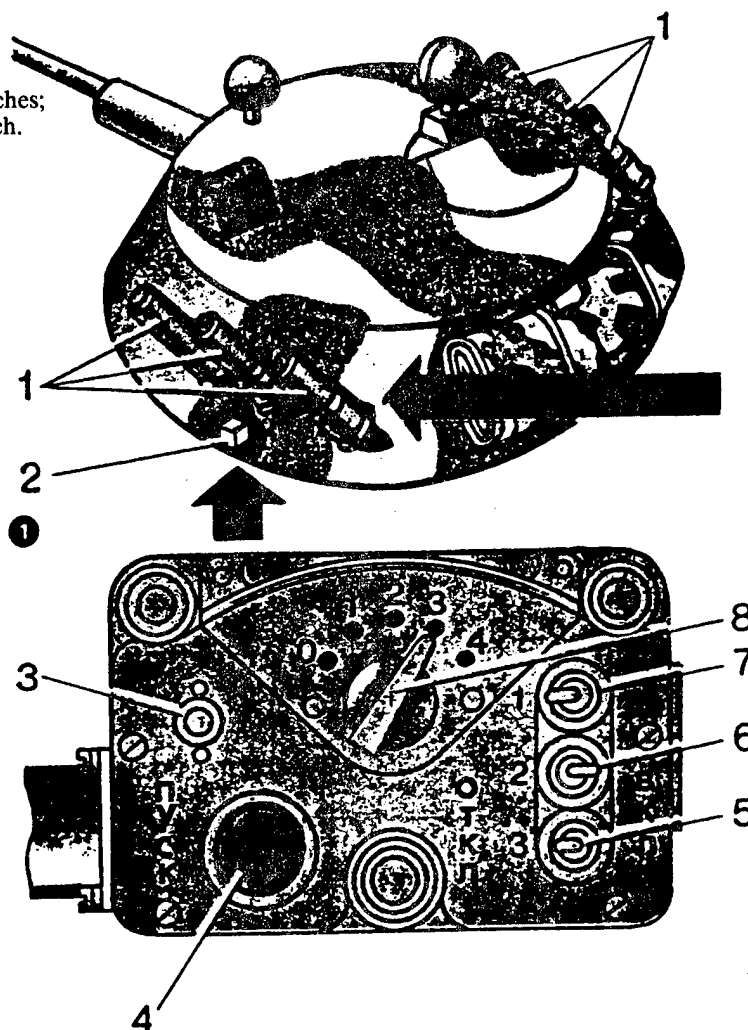
The 902V System has six launch tubes attached to brackets on the turret. They are divided into two groups of three launchers each. A launcher is a tube inserted into a breech with a contact device. It is loaded with 81 mm smoke grenades from the muzzle end. The grenade is supported in the launcher by a retaining ring and its sealing and compression to the contact is carried out using an end cap.

Smoke grenade launching is carried out from the control panel. The system's electrical circuit is executed so that both single grenade and salvo launches are permitted.

While preparing the system for operation, clean dust and dirt from the outer surfaces of the launcher with a brush. Then, remove the oil from the bottom of the launcher (using the cleaning rod from the 902V System's tool and accessory kit). Furthermore, set the base in the long grooves. To remove oil from the sides of the launch tube, set the base of the cleaning rod in short grooves and insert a clean brush into its spiral grooves so that it enters the launch tube with little effort. After this, move it to the end several times while rotating it.

Figure 2. Smoke Grenade Launching System:

1. Launchers;
2. Control Panel;
3. Signal Light;
4. "Launch" Button;
- 5, 6, and 7. Microswitches;
8. Multi-position Switch.



Load launchers only while the control panel is shut off. Personnel are not permitted to be within the grenade's flight range during this time. The grenade must be supported in the launcher by the retaining ring. Slightly tug its loop for assurance of a reliable lock [in place].

While inspecting the serviceability of the electrical circuit of the first group of launchers, set control panel microswitches 5 and 6 in the "off" position, set multi-position switch 8 in the "0" position, and set microswitch 7 in the "on" position. Then, sequentially turn multi-position switch 8 to positions "1," "2," and "3." Signal light 3 must simultaneously light up.

While controlling the electrical connection of the second group of launchers, disconnect microswitch 7 and turn on microswitch 6. Once again move multi-position

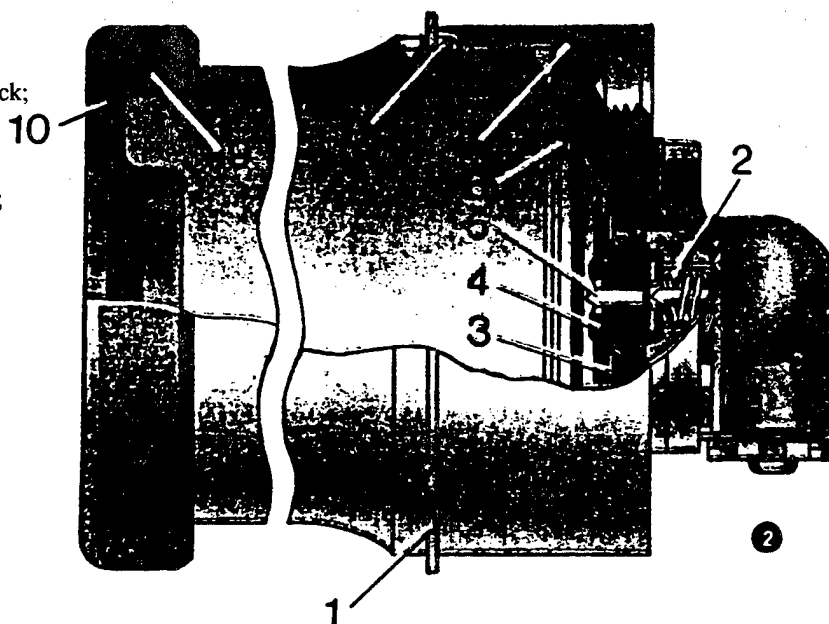
switch 8 sequentially to positions "1," "2," and "3." If the signal light does not light up in any of the positions, unload the launcher using the cleaning rod and determine the cause of the malfunction. Remember that pressing button number 4 "Launch" is prohibited while inspecting [the equipment].

Close all vehicle hatches and use the vision devices to make sure there are no personnel outside before laying a smoke screen. Turn on microswitch 7 (of the first group) or microswitch 6 (of the second group) for single launches. Place multi-position switch 8 in position "1" and press button 4 "Launch," then move multi-position switch 8 to position "2" and once again press button 4 "Launch."

To lay a smoke screen using a three grenade salvo, place multi-position switch 8 in position "0" and turn on the

Figure 3. [Smoke Grenade] Launcher.

1. Stopper;
2. Spring;
3. Washer;
4. Contact;
5. Electrical Block;
6. Ring;
7. Tube Cap;
8. Seal;
9. Launch Tube;
10. End Cap.



first or second launcher group. After this, press button 8 "Launch" and simultaneously move multi-position switch 8 from position "0" to position "3." A wide smoke screen can be laid using two salvos. Furthermore, rotate the turret in the direction to widen the screen's front before launching the second group.

Remember that smoke grenades are explosives and fire hazards. Therefore, avoid striking them or strong shocks while working with them. Combat use of grenades that have been dropped from heights of 3 meters or more is prohibited.

Clean and lubricate the launchers after carrying out launches from the 902V System and also during its seasonal maintenance by dismantling them but without removing them from the vehicle. To do this, bend aside the stopper using a screwdriver and a hammer and unscrew the launch tube from the breech using wrench 902.03.001. After it separates from the groove of the breech, extract the retaining ring. Wash all parts in diesel fuel, clean the soot and powder fouling from them, and wipe them dry with a clean cloth. Lubricate the bottom of the breech, retaining ring groove, seal and launch tube with GOI-54p oil (GOST 3276-74). Assemble it in reverse order. Check the mobility of the electrical block and retaining rings using wrench 902.03.001 from the System's tool and accessory kit. Put the end caps on after completing work on the launch tubes.

COPYRIGHT: "Tekhnika i vooruzheniye", 1989

Comments on Durability of Soviet Tanks

90UM0315A Moscow KRSNAYA ZVEZDA in Russian
20 Feb 90 First Edition p 2

[Article by Lt Col G. Kochetov, Northern Group of Forces: "Our Tanks Amazingly Sturdy: Praise by Afghanistan Veterans"]

[Text] I met Major Vladimir Naumov less than a year ago. It was an occasion when one of the companies of his battalion was judged to be the best in performance in the Northern Group of Forces. It developed that this success was due to extensive application of the Afghanistan combat experience to personnel training.

"In Afghanistan I learned quite a bit as a commander," Vladimir Naumov said to me later, sharing his thoughts. "First and foremost, I learned how to work with people and equipment. Incidentally, our equipment is a match for our soldiers—durable, reliable, and undemanding."

I have had occasion to write and read much about the war in Afghanistan. The accounts almost always deal exclusively with people and their deeds. That is proper. In this connection, we have unjustifiably little to say about the merits of our weapons and equipment. Assault rifles that were neglected to the point of being coated with sand and dust, bearing deep scars from bullets, functioned amazingly well at the mere press of the trigger. Helicopters flying in the mountains landed on a "postage stamp" to pick up people from cliffs and sides of mountains. It was none other than our reliable weapons and equipment that

made it possible for our fighting men to accomplish seemingly unresolvable tasks.

Of all the "Afghans" with whom I have come in contact, it was Vladimir Naumov who spoke convincingly of our "equipment that is a match for our soldiers—durable, reliable, and undemanding."

Vladimir Naumov was already an experienced tanker upon his arrival in Afghanistan. After graduating from tank school, he commanded a platoon for six years, then a company for more than a year. He adopted the habit of doing his work in a thorough and quiet manner, shunning haste and false enthusiasm. This kind of approach is especially desirable in combat. Even though the tankers were engaged in combat virtually without interruption, his company suffered the least losses but gained the most awards of all the subunits.

The first time he was attacked could have been the last for Captain Naumov. The tankers were escorting a column of fuel tanker trucks. As soon as they entered a village, they became the target of a grenade launcher located in a vineyard. A shaped-charge jet burned through the turret, but luckily did not strike the battle stowage. Naumov and the gunner were lucky: In a state of concussion, they were pulled out of the tank and their burning overalls extinguished. The cotton jackets and trousers saved them from suffering serious burns.

A month later his tank struck a mine. The blast destroyed the left track and knocked off a road wheel. The company commander himself was thrown out of the tank onto the tank exterior. His wounds were limited to numerous abrasions and bruises. No one in the crew sustained serious injuries, either. The dushmans then fired two grenades through the turret of his tank.

"I was told way back as a cadet that a direct hit by an antitank grenade can penetrate the armor of any modern tank," said Major Naumov. "I was convinced; I believed that one could not survive this. However, as shown by the Afghanistan experience, our tanks are amazingly sturdy. My vehicle took five direct hits in two years. Nevertheless, as you can see, I am still in service and my good old tank has not been scrapped."

From the military standpoint, the most difficult thing for our tankers was escorting Afghan columns carrying non-military items: flour, rice, clothing. A tank was at the head of the column, and a tank was at the tail. Additional tanks and infantry combat vehicles were intermingled with the cargo-carrying trucks. In the event "irreconcilables" would attack a column, each crew acted on its own. The attackers' tactic never varied: Knock out the first tank. If this was successful, they would try the next tank. So it could happen that a column would be trapped, since there would be no room to maneuver on the narrow mountain roads. The only thing you could rely on was the fortitude of the soldiers and reliability of the equipment. Here is an example.

It was required to escort a column carrying food supplies to a village. It was led by Captain Vladimir Naumov. There were about ten trucks and three tanks. Riding in the lead tank, as is the practice, was the commander. Naumov stood on the back of his seat, looking out waist even with the hatch. Slung from his neck was an assault rifle—an essential item. He was picturing in his mind how the column would be met by a gang of happy and chattering children. They knew that the "shuravi" would feed them. The "shuravi" would give them bread, flour, rice. A child's heart is a barometer of sincerity. Children are able to sense who emanates good and who evil. That is why they would always come running to greet our tanks. They would become frightened and hide in the huts when the "irreconcilables" would appear.

As the commander was contemplating the coming event, the tank was shaken by a powerful blast from below. Vladimir instinctively took hold of the hatch cover, an action that saved his life. Otherwise, he would have been thrown out of the tank to suffer a certain death. The vehicle was enveloped in flames and black smoke. The right track was disabled.

When Naumov came to, he realized that they were under attack. Lying next to him was dead loader Private Nikolay Ageyev. The mine that exploded under the floor destroyed the escape hatch and blew off both of Ageyev's legs.

Rocks began striking the tank. One of them flew through the open hatch. This brought the company commander fully to his senses. The rock attack was being waged by "irreconcilables" descending the mountain. They were approaching the tank in full view, confident that no one could have remained alive after the explosion. The other vehicles, located around a bend about 200 meters from the lead tank, were locked in combat. There was no hope of receiving assistance in this situation. How could the crew help? The loader was dead. Driver-mechanic Private Aleksandr Yegoshin also showed no signs of life. However, to Naumov's great joy, he did respond to the commander's call:

"Comrade Captain—I thought you were dead! I see the dushmans through the safety glass. They are headed straight for the tank. I have here a case of hand grenades. Maybe we can frighten them off. I will put two grenades aside just in case—one for you, one for myself."

There were about 10 attackers. Yegoshin waited until they came to within a short distance from the tank, at which time he threw two grenades. Then he threw two more. Howls of the wounded resounded. The survivors rushed the tank in a desperate attempt to take it. Naumov braced himself in the escape hatch and emptied a magazine of ammunition at the moving figures. Some of them fell, while others were able to hide behind rocks. Vladimir, loading a fresh magazine, assumed a position at the top hatch to fire a sustained burst at attackers who were descending the mountain to approach the tank.

Everything became quiet for a brief moment. A grenade launcher resounded loudly from above, and a grenade hissed over the tank turret. Two grenades followed. Again too high. The rocks were apparently in the way. However, at any moment the enemy could take up a more advantageous position.

"Yegoshin, try to start the engine," ordered Naumov.

"But the right 'shoe' is damaged."

"Start the engine! I have an idea."

The engine started on the third try, to the indescribable joy of Naumov and Yegoshin. They backed up as far as the damaged track permitted. Now the tankers would be able to bring the gun about. Naumov rotated the turret as he watched for the grenade launcher to emerge. He cut down an attacker with a sustained burst from the machinegun as soon as he showed himself from behind a rock and attempted to take aim. Naumov fired a round from the gun for greater certainty. He then fired several times at an accumulation of rocks that were hiding "irreconcilables." The crashing of the bursts and fragments hissing in all directions finished the job. The dushmans retreated a safe distance, leaving about three dozen corpses.

There is no way of knowing how long the siege of the tank could have lasted. Our helicopters appeared in the sky all of a sudden. They made several passes to rake the sides of the mountain with machinegun fire. A helicopter landed directly on the road to take aboard our dead and wounded.

I recently had another opportunity to talk to Naumov and his subordinates. Once again in the presence of inspecting officers evaluating their performance. The task was difficult: a live firing "Battalion in Defense" exercise. It is no secret that tankers do not like to dig in. The situation demanded that, however. Engineer preparation was completed ahead of scheduled norms. The tankers also excelled in repulsing attacks by the "enemy." They successfully destroyed all artillery gun targets. In a word, both the people and equipment reaffirmed their reliability.

Automatic Tank Gun Loading Devices

90A50041A Moscow *TEKNIKA I VOORUZHENIYE*
in Russian No 3, 1990 pp 4-6, C4

[Article based on foreign press materials by Lt Col L. Dzyundzyak, candidate of technical sciences, and Capt A. Tkach]

[Text] Foreign specialists believe that despite specific achievements in the development of magnetic railguns and guns employing liquid propellants, the creation of models suitable for installing in tanks is possible in the rather distant future. In their opinion, however, tank firepower can be increased at the present time and in the next few years through an improvement in traditional

guns by increasing their caliber and shifting to a smooth-bore design. But this inevitably will lead to a substantial increase in dimensions and weight of the vehicles, it will create certain difficulties in accommodating the unit of fire in the limited volume of the fighting compartment, and in addition gun loading time will increase, especially when firing on the move. Foreign designers hope to solve these problems by installing autoloader systems on tanks. In their opinion, it is entirely impossible to develop advanced tanks with remoted weapons without this.

It is believed that installing autoloader systems will permit a substantial increase in rate of fire, reduce tank dimensions and make more rational use of the freed-up behind-armor volume for additional protection. In addition, there will be an opportunity to increase the unit of fire because of a denser and more rational accommodation of separate-loading ammunition and to expand the nomenclature of projectiles.

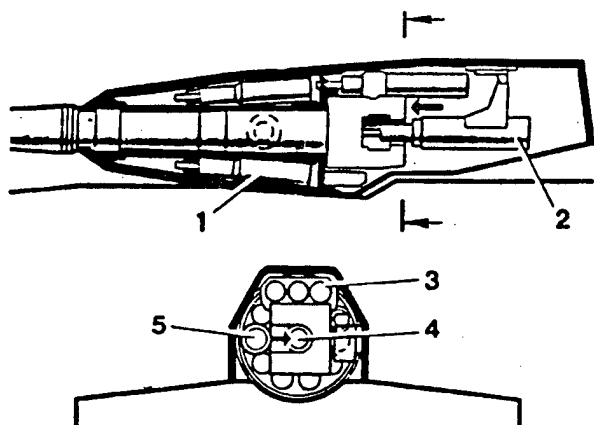
In striving to realize the above advantages more fully, foreign military specialists are making a serious study of optimum options for designs and configurations of autoloader devices. The following basic specifications and performance requirements are being placed on them: loading must occur in parallel with other round preparation operations; mandatory backup devices for supporting semiautomatic or manual loading of the gun from mechanized battle stowage; minimal size and weight of system elements, with sufficient battle stowage volume; high reliability and high survivability (no lower than for basic elements of the armament system); assurance of compatibility of autoloader device elements with other electrical and electronic tank systems; economy in energy consumption; and the possibility of loading ammunition of any types from a loader/transporter without the crew exiting the tank.

Specialists believe that these requirements can be realized in various configuration-design arrangements both of the automatic device itself as well as of the tank as a whole. Despite the absence of a uniformity of views on configuration arrangements of autoloader systems, foreign specialists concur in requirements of a design nature. It is believed that the autoloader system must have a memory unit and a device for data output on the number of rounds by types in the mechanized battle stowage. In addition, there must be an opportunity for selecting a projectile of the necessary type and delivering it to the loading line with subsequent chambering in the gun's breech chamber, as well as for catching (removing) the unburned portion of the case.

Based on the location of mechanized battle stowage in the tank, foreign specialists single out three basic autoloader system arrangements: the first in a turret that is stationary relative to the gun (in the recess of the tipping part of the turret or on the same base as the gun); the second in the turret recess; and the third in the tank hull.

In case the mechanized battle stowage is situated in the turret (first arrangement), battle stowage usually is realized in the form of a drum-type magazine with the capability of rotating relative to the gun or cradle. The magazine moves the round onto the loading line and a special manipulator extracts it from the drum, delivers it to the chambering line and chambers it.

Autoloader system with drum mechanized battle stowage:



Key:

1. Battle stowage
2. Manipulator
3. Rounds
4. Chambering line
5. Loading line

The manipulator is made in the form of a pipe which is attached to the turret and is capable of displacing horizontally along the axis of the bore in extracting a round from the magazine and rotating it to the chambering line. In addition, the pipe can occupy a position perpendicular to the tank's longitudinal axis to replenish the drum.

Specialists consider the advantages of such an arrangement to be the relative simplicity of design, the absence of a need to bring the gun to the loading angle, and the constantly matched position of the gun with the line of aim.

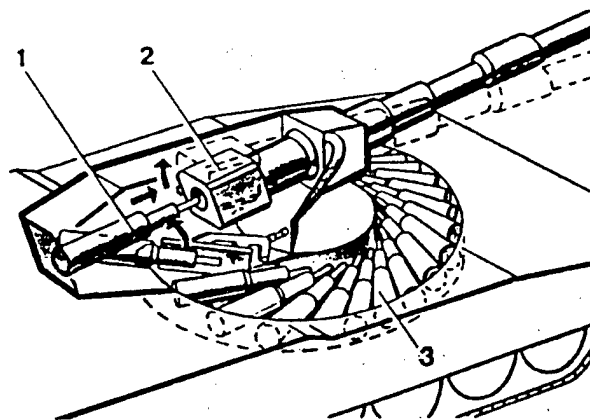
In their opinion, however, systems of this type will not find wide application because of a number of serious drawbacks: large turret dimensions are needed for accommodating the mechanized battle stowage and purging the gun; the gun's vertical laying angle is limited; stabilization conditions are complicated because of the great weight of the tipping part; in addition, the equilibrium of the gun and turret is disturbed as rounds are expended from the battle stowage.

In the specialists' opinion, autoloader devices made according to the second arrangement are more promising. The mechanized battle stowage of such an automatic device as a rule is situated in a rear turret recess and is fabricated in the form of a horizontal conveyor.

Trays which accommodate the rounds and charges with combustible cases are fastened on the conveyor. The tray is a pipe equipped with fixing arms for attaching the round. The chambering mechanism has a chain rammer.

One variant of such a system has two mechanized battle stowages for first- and second-order units of fire. Both battle stowages are made in the form of belt conveyers. The conveyor for the first-order unit of fire is accommodated horizontally in the rear turret niche and that of the second-order unit of fire is in the tank hull. Dispensers with special grips which fix the rounds and ensure their extraction during loading are fastened to the belts of these conveyers. The first-order conveyor is isolated from the fighting compartment by special baffles. The ammunition in it is accommodated parallel to the turret's longitudinal axis (with heads toward the inside of the turret or in the opposite direction).

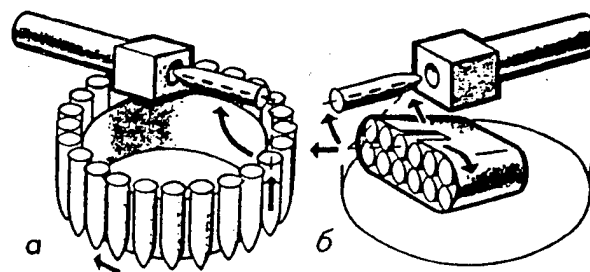
Autoloader system for a tank with remoted main armament



Key:

1. Manipulator
2. Gun breech
3. Mechanized battle stowage

Variants of autoloader systems with mechanized battle stowage disposed in tank hull



Key:

- a. With ring conveyor
- b. With horizontal belt conveyor

When projectiles are oriented in a direction opposite the fighting compartment, the isolated compartment with the first-order unit of fire is equipped with a special device which provides emergency communication with the atmosphere for releasing overpressure in case the unit of fire detonates. Specialists believe that this battle stowage design should ensure crew safety when the first-order battle stowage is destroyed.

It was announced that in this case automatic gun loading can be done only from the first-order unit of fire. Second-order ammunition is accommodated on conveyers in the tank hull and is used for replenishing the conveyer in the turret recess or for manual gun loading if necessary.

Foreign specialists believe that placing the breech chamber and mechanized battle stowage at the same level (the loading line and chambering line coincide) creates good conditions for using simple combined mechanisms for delivering and chambering the round.

Such a manipulator can be made in the form of a pipe connecting the mechanized battle stowage with the gun breech for the period of the loading cycle. The gun is automatically brought to the loading angle during loading; then the baffles open, the manipulator assumes its working position, extracts a round from the dispenser and rams it into the breech chamber. After the gun's wedge-type breech block closes, the manipulator drops into the initial position, battle stowage baffles close and the gun returns to a position matched with the line of aim.

The manipulator is made in the form of a rotating table to ensure rounds are oriented with heads in a direction opposite the fighting compartment (see figure). In this case, after extracting the round from the dispenser the manipulator turns it and places it head-first on the chambering line.

Other design solutions also are used abroad. Two belt conveyers, each of which can deliver the requisite projectile to a manipulator installed on the bulkhead separating the fighting compartment from the battle stowage, are disposed in the turret recess. The manipulator extracts a projectile, rotates its head toward the breech and chambers it.

Other autoloader developments propose to accommodate the first-order unit of fire in the turret recess at an angle to its longitudinal axis in a "herring bone" or "sheaf" fashion. Such stowage permits more rational use of the recess volume, but somewhat complicates the feed mechanism design.

Foreign specialists believe that these options provide a number of advantages compared with the first arrangement of the autoloader system, including favorable gun stabilization conditions, a simple path for delivering the round to the chambering line, and rather reliable crew protection if the unit of fire explodes. In addition, in their opinion this design is well adapted for automating the loading of ammunition into the mechanized battle stowage by a loader/transporter.

But along with the merits, specialists also note a number of drawbacks in the arrangement of the autoloader system with mechanized battle stowage in the turret recess. They

include the large turret size (especially the side and upper projections); difficulty in stabilizing it because of the change in its equilibrium over a broad range as the first-order unit of fire is expended; relatively small loading angle, which can lead to the gun sticking into the ground when firing from the move; and the design complexity of the feed mechanism with rounds disposed in the turret recess at an angle to the turret longitudinal axis or in a direction opposite to the fighting compartment.

The specialists believe that developments of autoloader systems realized under the third arrangement, with disposition in the tank hull, are of some interest. Some variants of this type of autoloader system have mechanized battle stowage in the form of a chain belt conveyer similar to a cartridge belt. Such a conveyer can be installed on the fighting compartment floor in the loader's place with rounds disposed vertically, or disposed horizontally with the conveyer shifted toward the gun axis.

In the first case the feed and chambering mechanism can be accommodated on the gun cradle. Here it extracts the round in the vertical plane, rotates it into a plane parallel to the bore axis, delivers it to the chambering line, and chambers it.

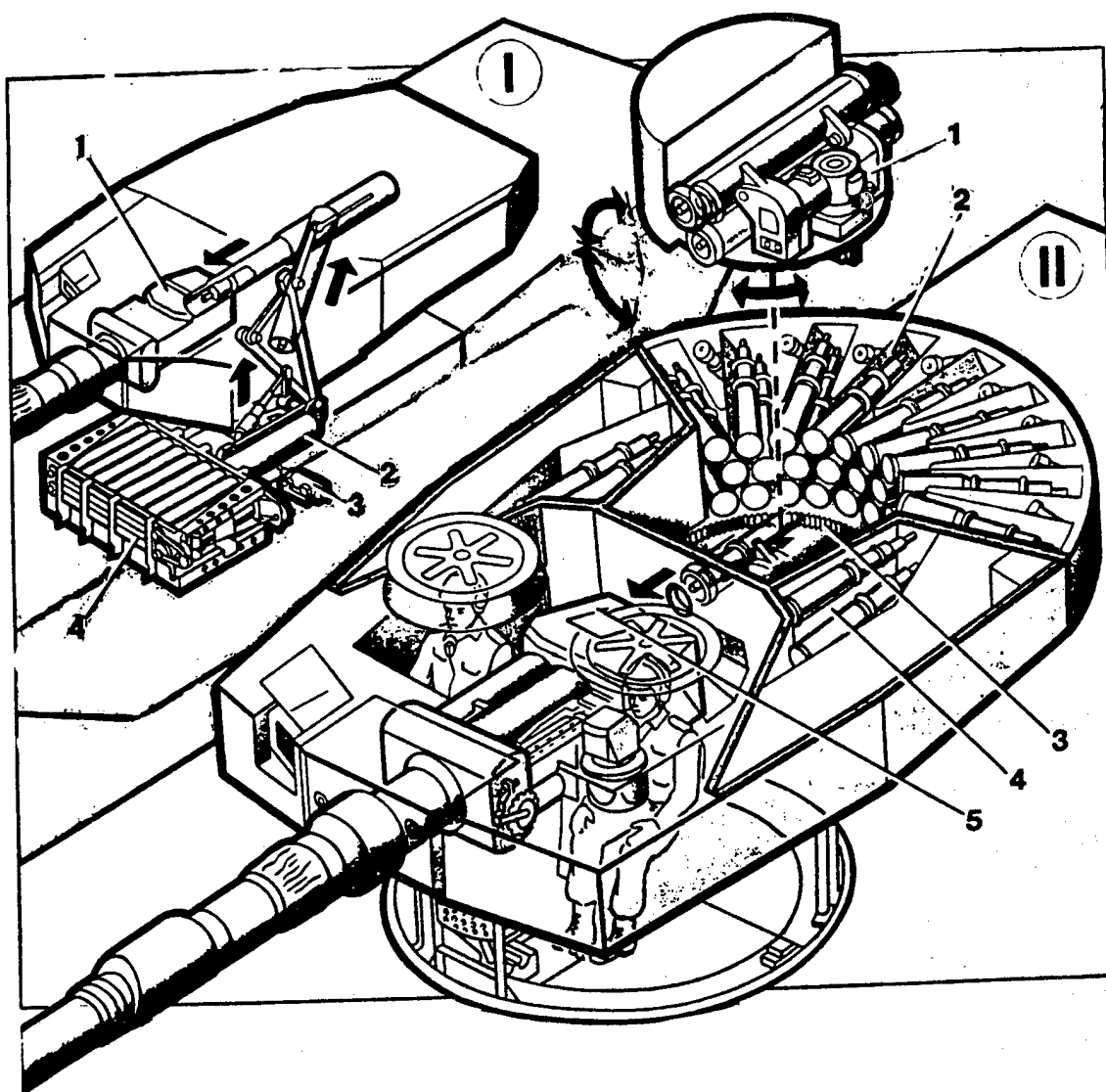
In the second case it is proposed to use a manipulator situated in the lower rear part of the fighting compartment. Such a manipulator consists of guides with a telescopic rod having a hydraulic drive. The guides are hinged to the rear part of the turret and are supplied with slides. The slides are connected by an axis with the upper part of the telescopic rod, the lower part of which is fastened to the fighting compartment floor. In the initial position the telescopic rod is on the loading line, slides in the extreme forward position, and guides below.

When a round is extracted from the conveyer, the slides grip it because of the action of the telescopic rod and, moving along the guides, they deliver it to the chambering line. The round is chambered by increasing the length of the telescopic rod.

This arrangement is considered simple enough, but it does not provide requisite conveyer capacity. Capacity can be increased if the mechanized battle stowage is situated outside the tank fighting compartment in the front part of the hull (see last figure). Such mechanized battle stowage consists of a three-speed belt conveyer which delivers rounds to the loading line as it moves. The round is extracted from the conveyer and delivered to the chambering line by a special mechanism situated beneath the fighting compartment floor. This mechanism can rotate relative to the turret axis. The round is extracted, displaced beneath the fighting compartment floor and fed to the chambering line with the help of a telescopic rod having a hydraulic drive similar to that described earlier. Because of the presence of a rotating contact device, the round moves beneath the fighting compartment floor parallel to the tank's longitudinal axis, but displaces in a direction away from it.

In addition, the distribution opening in the fighting compartment floor also is displaced. All this complicates the round's movement path to the chambering line and increases the autoloader cycle time.

Extraction and feed mechanisms



Key:

I. Autoloader device with mechanized battle stowage disposed in the tank hull

1. Gun breech
2. Manipulator with guide pipe and telescopic rod
3. Hydraulic drive pump
4. Mechanized battle stowage conveyer

II. Autoloader with mechanized battle stowage disposed in tank turret

1. Extractor, feed and chambering mechanism
2. First-order ammunition
3. Toothed quadrant
4. Second-order ammunition
5. Gun breech

The variant where the mechanized battle stowage is made in the form of a rotating ring conveyer fastened to the turret's inner race or in the form of a magazine located beneath the fighting compartment floor is considered simpler. In both cases the number of rounds in mechanized battle stowage increases considerably.

Specialists believe that developments of an autoloader system with mechanized battle stowage accommodated in the tank hull will be able to find wide use. They are rather simple to realize in tanks with a classic configuration. Their installation is more preferable in turretless vehicles. The advantages of such an arrangement include good conditions for turret and gun stabilization, the possibility of reducing turret dimensions, relative simplicity of feed and chambering mechanism design, better protection of rounds because of their accommodation in less vulnerable places of the tank hull, and sufficient mechanized battle stowage volume. Among the deficiencies is the difficulty of providing crew protection against an explosion of the unit of fire and a somewhat increased loading cycle.

The press has reported that advance models of tanks with remoted main weapon in which the use of autoloaders becomes mandatory are being studied abroad. In this case the simplest design solution is considered to be with the autoloader accommodated on the main weapon's rotating platform. Such a configuration provides a high rate of fire, but it has low survivability under the effect of enemy fire. Therefore preference is given to accommodating the mechanized battle stowage in the most protected places of the tank hull, particularly in the vehicle's rear section. Then only the manipulator remains on the remote gun platform.

In the loading process a round is extracted from the mechanized battle stowage and enters an armored guide attached to a rotating holder on the gun base race. The holder elevates and rotates so that the guide with the round enters the loading plane, then the holder lifts the guide to the chambering line and the rammer is triggered.

It has been reported that the chief tasks facing foreign developers of the autoloader system are choosing optimum design solutions conforming to the tank's overall configuration, providing for high reliability of elements, and reducing their weight-size characteristics.

COPYRIGHT: "Tekhnika i vooruzheniye", 1990

Towing Combat Equipment

90A50041B Moscow *TEKNIKA I VOORUZHENIYE*
in Russian No 3, 1990 pp 26-27

[Article by Col N Bozhok and Lt Col V. Churilov]

[Text] The type of coupler is chosen depending on whether or not steerability of the unserviceable vehicle has been preserved. Unsteerable tanks are towed only on a rigid coupling from the bars on the prime mover or armored recovery vehicle. Its use precludes the probability of the tank running into the prime mover, provides sufficient

turnability of the vehicles' coupling, and increases towing speed. When moving using a rigid coupling do not make sharp, abrupt turns, since this can lead to tow bar damage. The turning radius must be at least 15 m.

Before beginning to tow a T-72 tank it is important to prepare its power transmission correctly. If the vehicle is to be moved a distance of more than 5 km, first pump oil into housings of the left and right gear cases using the towing vehicle's oil circulating pump. To do this open the cover over the power transmission and shift the starter-generator drive distribution valve levers into the ZB [not further identified, probably battery start] position (toward the front of the tank). After measuring the oil level in the hydraulic control system tank and shifting into second or fourth gear with the selector lever, press the towing vehicle's oil circulating pump button. Then, without releasing the button, fully depress and release the clutch pedal several times. In so doing, oil will be pumped from the tank into both gear cases. Pumping of oil is stopped when its level in the tank drops to 100-120 mm (half the distance from the lower end of the dipstick to the "22" mark or approximately to the "B" mark of the fuel and oil measuring rod). After this return the gear selector lever to neutral, place the distribution valve knob in the SG [starter-generator] position for starting using the starter-generator (toward the rear of the tank), and close the cover over the power transmission.

If the towing vehicle's oil circulating pump is unserviceable, then add oil to each gearbox through the distribution mechanism inspection holes. Drain the necessary amount from the hydraulic control system and power transmission lubrication oil tank. Remove inspection plates on the right and left distribution mechanisms and add half of the drained oil to each gearbox. Replace the plates. It is permissible to tow the T-72 tank for a distance up to 5 km without adding oil to the gear cases if it was not pumped out before this.

If there is no transmission oil, in case of extreme need it is permissible to fill the gear cases with oil being used for the engine lubrication system (10-12 liters into each gear case), but it must be drained at the very first opportunity and filled with oil used in the hydraulic control and power transmission lubrication system, after first flushing it out with this same oil.

The T-72 tank can be towed both in forward and reverse gear. In the first instance the turret is rotated so the gun points backward (toward the rear) and it is locked. The driver must be in the driving compartment with hatch closed. Raise the front flaps and fix them in this position so as not to damage them. Move in first or second gear, if possible at a constant speed of no more than 12 km/hr, and at 8 km/hr at night (or under conditions of limited visibility). Start off smoothly after first taking up slack in the tow cables. In case two or three prime movers are used, the lead one begins moving and then other ones successively behind it. The driver of the towed tank must keep an eye on the cables, keeping them taut at all times. To avoid colliding with the prime mover, the towed

vehicle must be braked lightly with the stopping brake, but frequent, lengthy braking is inadmissible since the gearbox clutches may fail.

During movement it is advisable to periodically check the extent of gear case heating. If they are so hot that they cannot be touched with the hand, speed must be reduced to 6-8 km/hr, otherwise the rubber gearbox seals may fail. When a tank with an unserviceable stopping brake is being moved, only rigid couplings (bars) are used or it is towed using two prime movers. In this case the second one is coupled with the tank from the rear and used for light braking.

Vehicles with jammed transmission or running gear elements usually are towed using a prime mover or armored recovery vehicle by one of two methods. The first is used in exceptional cases on rather firm soils. The unserviceable vehicle is moved without tracks on the road wheels and the removed tracks are transported separately.

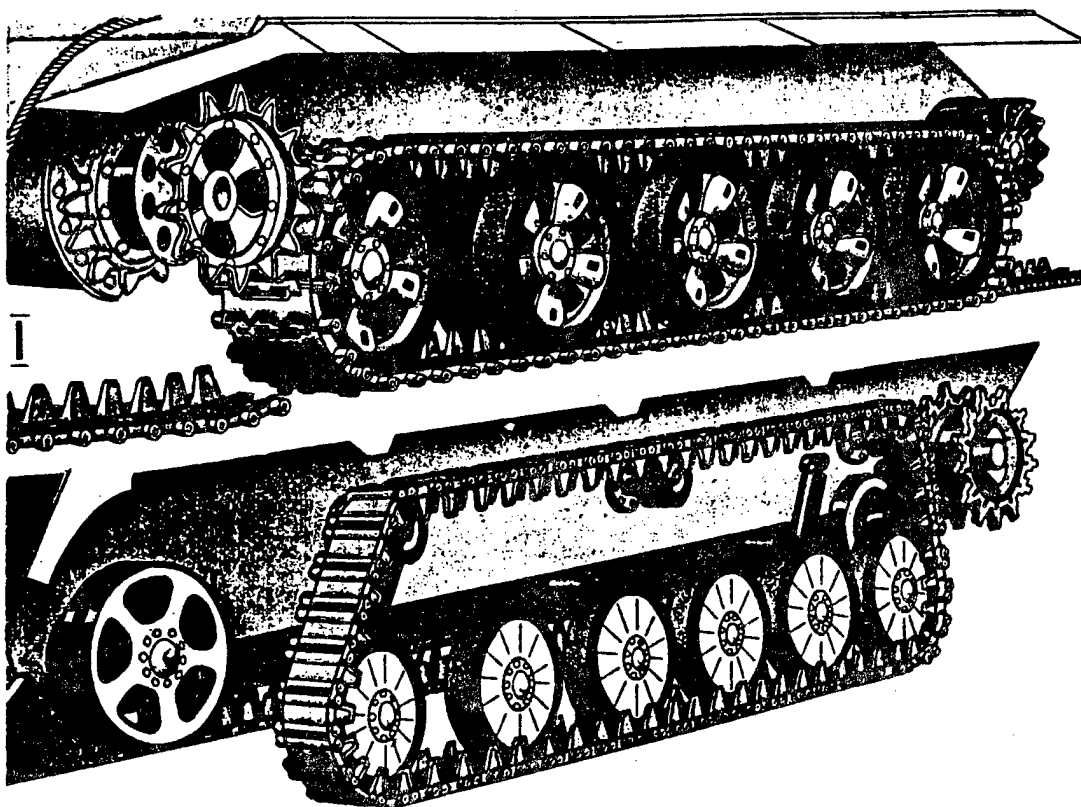
Experience has shown that considerable tractive force is required when towing a vehicle on road wheels over soils with poor supporting power. For example, it takes 18 and 6 tons-force respectively for the T-62 tank and BMP-1 or BMP-2. Under these conditions it is more advisable to use the second method—towing on tracks that have been tensioned bypassing the drive wheel or

idler wheel. The tractive force necessary for towing by this method can drop to 2.6-3 tons-force for the T-62 tank and 0.9-1.1 tons-force for the BMP-1 or BMP-2.

In preparing to tow the T-62 tank with jammed drive wheels or jammed final drive, first disconnect the track beneath the drive wheel and move the vehicle forward enough so that 10-12 track links remain behind the last road wheel and so that the top run of the track has moved off the drive wheel rim. To help get the track off, it is necessary to use wrecking bars to disengage the track links from the drive rim teeth. After this disconnect eight track links from the bottom run and connect the track using cramps from the vehicle spare parts, tools and accessories kit. Experience has shown that all this will take no more than 30 minutes. Installing the track bypassing the idler wheel is done in a similar manner, but in this case the track is disconnected beneath the idler wheel and the vehicle is moved backward. This operation takes around 15 minutes. In case both of the drive or idler wheels are jammed on the vehicle, both tracks are connected as indicated above.

When the idler wheel fails on T-64 tanks it is permissible to transpose the second road wheel support arm to the upper position and tension the track over this wheel as over an idler wheel. This vehicle's transmission is prepared just as for the T-72 tank.

Fig. 1. Tensioning tank and BMP tracks bypassing the drive or idler wheel



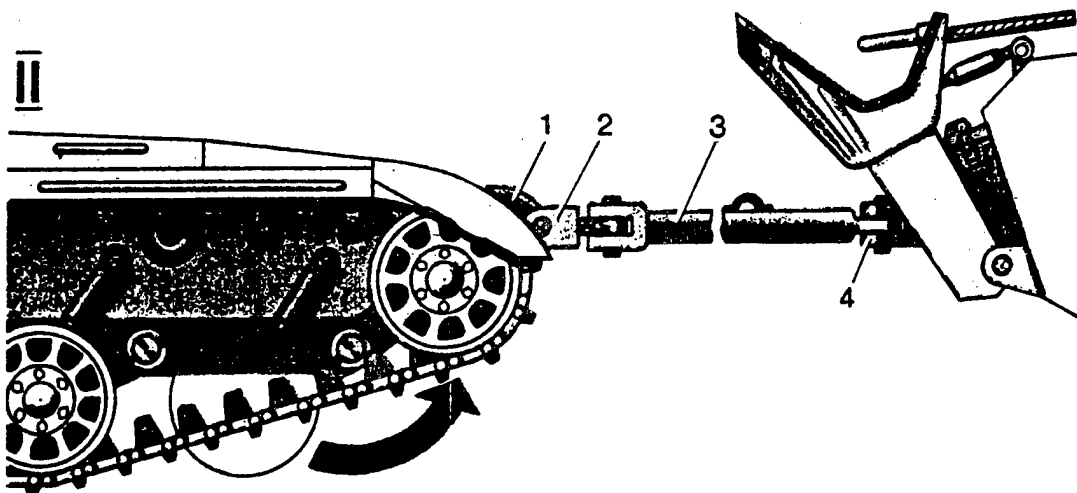


Fig. 2. Towing the T-64 tank with unserviceable idler wheel on a rigid coupling

Key:

1. Tank tow hook
2. Shoe
3. Bar
4. Prime mover towing device

The very same operations are performed to tow the BMP-1 or BMP-2 by the suggested methods. The only difference is that in installing the track bypassing the drive wheel, the front hydraulic shock absorber is disassembled and nine track links are disconnected (or eleven track links when bypassing the idler wheel). The time for performing these operations is 50 and 40 minutes respectively.

It is advisable to use a rigid coupling to tow vehicles with tracks tensioned bypassing the drive wheels. It is permissible to use tow cables, however, if the tracks are tensioned bypassing the idler wheel and the vehicle's turning control drives and brakes are serviceable.

COPYRIGHT: "Tekhnika i vooruzheniye", 1990

Shortage of Communications Equipment Among Tactical Units

90UM0553A Moscow KRASNAYA ZVEZDA in Russian
4 May 90 First Edition p 2

[Article by Major V. Matyash, Kiev Military District:
"At the Field Training Exercise"]

[Text] Spring has arrived and the landscape of the ranges has changed. Both the background of the terrain, the camouflage of targets, and even camouflage uniforms on soldiers and officers have also become different. Only the essence of the range itself and the concept of operations of those who train here has remained as before. Has combat training become more effective? Meetings at

training exercises that crowned the work of many people have served as grounds for reflection on this theme.

The motorized rifle battalion commanded by Lieutenant Colonel A. Zhernokov had to take on the first "enemy" onslaught. It is true that its mission was eased somewhat by bunkers and trenches dug by subunits that had previously occupied this area. They only had to clean and reinforce them. And a swamp that was impassable by tanks occupied a significant portion of the terrain in front of the battalion's main line of defense. Thus, the opposing side had no other choice: They could only advance along three causeways for deployment into battle formation. Having concentrated the main forces here, the battalion commander could dictate his will to the "enemy."

Judging by the disposition of men and equipment, he decided to act in this manner, but.... UAZ trucks soon began to stop alongside the battalion command and observation post. The generals, colonels, and lieutenant colonels who drove up issued some orders, and asked, demanded, and threatened something or other.... One did not like the fact that the poles and pegs which secured the camouflage net over the command and observation post were of varying diameters and were uncut. For some reason another thought it necessary to move the firing positions of the tank company attached to the battalion.... However, I will not begin to list all of the vicissitudes that began at the battalion's positions with the arrival of the command staff. One thing was clear: For some reason, the decision made by the battalion commander did not suit them.

And just what is a battalion commander? In this situation, could he somehow defend his legal right to command his subordinates? In my opinion, Captain M. Maryanchenko, one of the company commanders, eloquently described the situation that developed in this case.

"I can state my opinion only at meetings," he noted, "And here.... Well, I deployed my tanks, having coordinated with the battalion commander in order to close off the "enemy's" opportunity to maneuver. But Lieutenant Colonel Sayenko from military district headquarters arrived and ordered us to dig defensive positions over there in those trenches. And there is a marsh, like a swamp, over there from which the "enemy" cannot emerge. [Does this make] sense? It will probably be more apparent from the command and observation post.

Unfortunately, I had the opportunity to run into this practice of taking the commanders' place more than once. And what is noteworthy: Increasingly, neither company nor platoon commanders knew either the first or last names of those who handed out "tactical problems" right and left without delving into an explanation of the sense of the new decisions or the difficulties associated with their execution. This is what I thought in connection with this.

I saw that many foreign observers who visited our training exercises had their last names sewn on to their uniforms. At first, I thought: Excess. However, while returning from the field training exercise, I was already convinced otherwise. And should we not introduce these name strips? So that battalion, company, and platoon commanders, operating under conditions that we call most nearly approximating combat conditions, find out just who is dictating ready-made decisions to them at the time that they themselves want to engage in an intellectual duel with the "enemy." Maybe, someone should also develop the ability to answer for each of his orders along with the habit to command?

Let us imagine a combined-arms engagement for an instant: Smoke, fire, explosions, firing... Even if this is only a field training exercise, it is no simple matter to control the actions of numerous multi-service subunits in a vast territory. It is understandable that here everything depends on the precision of command and control, coordination, and the reliability of communications at all echelons.

Regimental Chief of Communications Major A. Pavlenko is an ace at his profession. The commander did not add anything to his proposals on organization of communications in defense. The documentation was polished into its best form. Difficulties only began to arise just prior to the beginning of the engagement during implementation of what had been planned.

We all know that landline communications are primarily used in defense. But there was not enough telephone equipment to do this. Thus the radio silence mode existed primarily on paper. In reality, commanders resolved all issues of coordination, clarification, and organization of operations using clear text over the airwaves. Well, let us

say, that Lieutenant V. Mirko should not have to flit from one antiaircraft gun position to another or to the combined-arms commander for each order! I do not know if the lieutenant, or many others who used radio communications on an unlimited basis prior to initiation of the engagement, had to answer for such license but this could cost dearly during an actual engagement.

As we all know, reliable communications are not only needed by headquarters. They are also needed in companies, in platoons, and in squads. Therefore, portable radio transceivers are also being listed in the TOE. However, misunderstandings also arose with them during the field training exercise. Storage batteries "sat" before time. But it turned out that Major Pavlenko did not have any charging devices among his "equipment." And as you know, this is also how we fight and control.

The mortar platoon had to cover subunits withdrawing to alternate positions.

"And they will remove us from this small hill in a jiffy," Reserve Private Viktor Zamkovoy reasoned with a knowledge of his profession. "Here I would leave one artillery observer with a radio transceiver and would conceal the [gun] crews over there in that dale."

It is difficult not to agree with the suggestion of an experienced soldier. He compared this situation with those that he had encountered during engagements on Afghan soil. What was missing right now for this soldier to employ his combat experience? Communications equipment.

And in another episode. During a tactical assault force landing, Captain A. Prussakov's subordinates acted boldly and decisively. However under attack by superior forces of an anti-tactical assault reserve, they were still compelled to withdraw.

"First platoon, withdraw beyond the bunkers! First platoon!....

Alas, squad leaders did not hear the lieutenant's commands since they were drowned out by explosions and bursts of automatic fire. It was useless to hope for visual contact: The battle field was obscured by smoke and flames were blazing around it.... Here you could not even see your neighbor along the squad line.

Maybe the episodes I have described did not have a decisive impact on the results of the field training exercise. But it is unfortunate in and of itself that the lack of some materiel at times reduced many people's efforts to naught. Both the commander and the soldier feel more confident knowing that a reliable comrade is operating alongside them in the trench and on the squad line. How do you find out if he requires your assistance? How does he find out that you need help? If neither the squad leader nor the platoon commander have a radio transceiver, how can small unit coordination in fact be organized? Count on signal flags which have long ago become obsolete?

Let us look at the television program "From Competent Sources"—just what portable radio transceivers do various criminal groups not have in their inventory. And where they should be according to the TOE, we are forced to count on signal flags....

"Sacrifice, this means, sacrifice," Reserve Sergeant A. Shcherbanenko expressed the general opinion about the mission they received. "A soldier's duty is never to forget...."

According to mood and duty. How many kind words did I have the opportunity to hear about V. Donets, A. Voznyuk, N. Nesterenko, and many other soldiers called up to the reserve for the field training exercise!

"Serious men," Reserve Sr Lt L. Khoroshenko, combat engineer platoon commander, said about them. "Look at Reserve Privates O. Krivtsov and V. Prolis.... There is no need to repeat or correct anything with them."

However, as we learned, not all of those called up from the reserve were in their proper places. In their proper places—in the sense of military specialties complying with mobilization documents. For example, of the four officers called up to Lieutenant I. Markhotko's company, three turned out to be "not in compliance." And in Lieutenant V. Chelovenko's mortar battery—three-fourths. Time was required to inform them about what was going on. And, as we all know, time is always

very short at field training exercises. And then we hope for high professionalism in operations....

Deputy Battalion Commander for Rear Services Reserve Sr Lt G. Esrik directed the work of cooks at the food and issue gear supply point. It is true that he himself has no aptitude for the culinary arts but even Reserve Private First Class G. Mudrak, a drawer by profession, last prepared food 20 years ago as he himself admitted....

"How is the dinner?" we asked. G. Esrik gave us a sheet of notebook paper folded in two instead of an answer: "Dinner was well prepared. Order is being maintained at the messing facility." And the signature underneath it—Major General Shatin." And the date.

I do not know what they served the general, but the officers and soldiers' assessment of the dinner was negative. It is true that both the food and even the organization of the messing itself improved after the deputy commander for rear services' report at the battalion officers meeting.

And nevertheless personnel problems must force us all, everyone and military commissariat workers who are engaged in calling up reserve soldiers in particular, to seriously ponder the consequences which can occur in conditions when people are randomly assigned to positions.

**VESTNIK PROTIVOVOZDUSHNOY
OBORONY: 1989 Index**

90UM0374A Moscow VESTNIK
PROTIVOVOZDUSHNOY OBORONY in Russian
No 12, Dec 89 pp 92-96

[Article: "Index of Materials Published in the Journal
VESTNIK PROTIVOVOZDUSHNOY OBORONY
for 1989"]

[Text]

LEAD ARTICLES

Time: Irreplaceable Capital	1
Litvinov, V. Cadres in the Stage of Perestroyka	2
We Choose People's Deputies	3
We Are Responsible for a Clean Sky	4
We Were Victorious in That Great War	5
Chermashentsev, K. How Are You Living, Young Officer?	6
Readiness of Arms and Military Equipment	7
Chermashentsev, K. Congress of People's Deputies of the USSR	8
Davydov, G. Learn To Defend the Motherland	9
Chukarin, N. Priority for Qualitative Parameters	10
CPSU Platform on Ethnic Policy Is the Focus of Party Members' Attention	11
There Is No Right to Inaction	11
Rychkov, A. Political Study on the March of Renewal	12

**PARTY CONFERENCE RESOLUTIONS: A GUIDE
FOR ACTION**

According to Perestroyka Criteria	1
Golova, N. Qualitative Parameters Are the Basis of Training	1
Tkachev, V. A Reserve in Intensification of Practices ..	1
Burulev, D. Priority for Practical Affairs	1
Puzikov, I. Be an Active Fighting Man	2
Andreytsov, A. "Commissar" Is a Respectful Word	2
Lisunov, V. We Encourage Initiative	3
Bolshakov, M. Democratization and One-Man Command	3
Popadin, P. Fundamental Reform of the Political System	4
Vovk, V. Through Myths and Dogmas	5

Frolov, A. Along the Path of the Party's Renewal	6
Zakharov, P. Efficiency Reports for Officer Cadres	6
Ivanenko, A. Trust	7
Sakhno, V. Reserve for Advancement	7
Maksimenko, A. Learn To Perceive New Things	8
Moiseyev, I. Be Able To Single Out What Is Important	9
Biryukov, V. Flag Station of Hard Times	9
Semenchenko, N. How Does Sychev Succeed?	9
Lymar, I. Behind Each Letter Is a Person	10
Kirichok, V. Lessons of Glasnost	11
Varfolomeyev, I. New Thinking	12
Moshkin, N. Games for Soothsayers	12

**TOWARD THE CPSU CENTRAL COMMITTEE
PLENUM**

Sadovoy, V. Sphere of Special Attention	4
Ryabokon, G. Defending Our Common House	4

FOR ELECTIONS OF PEOPLE'S DEPUTIES

Congresses of Soviets	3
-----------------------------	---

ALERT DUTY

Ledermann, A. Rate of Passage and Completeness of Radar Data	1
Suchkov, A. Coordination of Command Post and Crews	2
Strelnikov, A. What Depends on the Engineer?	3
Grinyuk, P. According to Quality Parameters	4
Izotikov, Yu. Assuring Reliability of Arms	5
Vasilyev, B. Validity of Information	6
Bilyayev, Ya. The Command Post in a Nonstandard Situation	7
Fedorov, S. Beyond the Barrier of the Commonplace ..	7
Goncharov, A. Despite Fatigue and Stresses	8
Moshkin, N. Look for Medicine Against the Commonplace	9
Stepanov, N. Not Trusting the Silence	10
Daniels, M., and Dokuchayev, I. Based on Foremost Experience	11
Bezhko, A. This Is a Great Force!	12

DECORATED BY THE MOTHERLAND

Petrov, V. For Courage and Selflessness	1
---	---

Blagonravov, V. Honor According to Labor	2
Strelnikov, A. The Crew	2
Eleven Minutes and a Lifetime	8
Yasakov, V. Courage Passes the Test	9

COMBAT TRAINING

Sinitsyn, V. With a Rigid Time Limit	1
Sdobnov, Ye. Not for the Sake of One Point	1
Rybchak, B. With Consideration of Previous Mistakes	1
Amirov, V. In a Creative Search	1
Bogdanov, V. A Replacement in the Team	1
Pavlovich, V. A Monitor in the Classroom	1
Chumachenko, A. Give the Muscle a Load	1
Andriyanov, A. Confrontation	1
Amirov, V. The "Enemy" Did Not Pass	2
Assessment from Different Positions	2
Yakubenko, A. Approaching Real Combat	2
Protsenko, V. Show Attention to the Lieutenant	2
Belostotskiy, G. A Sudden Call	2
Drugoveyko, G. The Fighter Is Strong in Maneuver	2
Andryushkov, A. From the Blade to the Supersonic	2
Zhizhka, M. The Range Gives an Evaluation	3
Korotkov, M. Facing Tactics	3
Timchenko, S. Ejection Drill	3
Banko, Yu. Relying on Experience	3
Alekhin, G. Is Objective Monitoring Objective?	3
Mazayev, V. Criteria of Firing Effectiveness	4
Banko, Yu. A Winged Dynasty	4
Drovyannikov, A. How To Speed Up Data Passage	4
Ilyasov, A. The Wingman Moves Forward	4
Poroskov, N. Drawing the Line	4
Sumachev, V. Priorities Are Suggested by Practice	4
Kushev, V. Ground Defense of Positions	5
Dubovik, A. Battalion Night Maneuver	5
Larkov, V. That Is How Lieutenants Mature	5
Golodnyy, Yu., and Yezhov, V. The Personal Computer Teaches Combat	5

Belousov, S. ...Plus Incidental Practices	5
Sidochenko, A. Objectiveness of Self-Evaluation	5
Vaganov, V. Against Fast, High-Altitude Targets	6
Falichev, O. Unusual Experiment	6
Kozlov, V. Nonstandard Situation	6
Rybkin, V. Low-Altitude Combat	6
Matsayev, M. Twenty Years Without Motor Vehicle Accidents	6
Pavlov, N. What's New in Highway Traffic	6
Rybchenko, S. A Note for the Subunit Commander	6
Shashkov, A. Guarding Health	6
Klavdiyev, V. Organizing One-Stage Practices	7
Semin, M. Flights Are Planned, But What Is the Staff's Role?	7
Abashev, A. Independence of the Squadron Commander	7
Shashkov, A. ...But the Essence Is in the Person	7
Banko, Yu. Why the "Association of Countrymen" Is Tenacious	7
Levitskiy, S. ...And He Became a GCI Controller	8
Ryabokon, G. "Excuse Me, Mine Is Landing"	8
Lopatin, M. The Staff and Planning	8
Tarasov, I. Preflight Drill	8
Dvinyaninov, A. Where Trees Grow on the Rocks	8
Neupokoyev, F. Organizing Tactical Coordination	9
Sinikov, A. Is It Necessary To Coddle a Pilot?	9
Skiba, V. Next to the Expert	9
Shashkov, A. The Full-Power Vertical Take-Off	9
Romanovskiy, I. If There Is No Simulator	9
Timonov, K. Battalion Night March	10
Zuzlov, V. Not for the Sake of Monitoring Alone	10
Komlik, V. An Integrated Group Works in the Subunit	10
Akchurin, R. Tactical Field Fire Exercise	11
Maryanovskiy, M. The Firer's Proficiency	11
Agafonov, A. Under a New Methodological System	11
Shulyakov, V. The Right To Take a Risk	11
Miruk, V. Using a System of Incentives	12

Stepanov, P. Flight Efficiency	12
Kolomiyets, V. Don't Agitate, Suggest	12
Romanovskiy, I. General-Purpose Autonomous Radar Simulator	12

FOR FLIGHT SAFETY

Kuzminov, A. How Can Air Operations Control Be Improved?	2
Krichevskiy, S., and Bolotin, S. Accident Prevention ...	8
Andryushkov, A. The Right to a Sortie	10
Libkind, V., and Yakovenko, S. The Pilot Is Disqualified	11
Vasilyev, K. Information Content of a Methods Classroom	12

AIR DEFENSE BATTLE: PROBLEMS AND OPINIONS

Neupokoyev, F. Methods of Mobile Operations	3
Mushkov, Yu., and Silkin, A. Principle of Sufficiency	5
Kolomoyets, F. Choice of Combat Methods	7
Mushkov, Yu., and Silkin, A. Forecasting Sufficiency ..	9
Goryachev, A. Formalizing and Automating Communications Control	10
Prudnikov, V. Research Nature of Exercises	11

PARTY-POLITICAL WORK

Gizatulin, B. Reliable Reference Points	1
Maksimenko, A. My Life, the Army	1
Agrashenkov, A. And If We Depart From Stereotypes?	2
Chalykh, V. All Threads of Perestroyka	2
Burulev, D. The Style Is Democratic	3
Nikonenko, N. By Force of Arguments	3
Berezhnoy, S. Order Is Crowding Out Hazing of Conscripts by Those With More Seniority	3
Krasnoperov, Ye. A Sure Course Has Been Set	4
Moshkin, N. They Remain in Formation	5
Romanov, L. Discovering Oneself Anew	6
Bezhko, A. There Is No Stronger Support	6
Belokopytov, D. Strong Because of Each Other	6
Golovachev, G. From Contact for Exploitation to Contact for Dialogue	6
Fomichev, V. Both Are Responsible	7

Moshkin, N. Questions for Oneself	7
Nikonov, A. About the Past for the Future	7
Tokarskiy, S. With a Bitter Aftertaste	8
Moshkin, N. Don't Nullify the Beginning of Creation	8
Mikhaylov, O. Culture of Relations Is a Common Task	9
Seryugin, S. There Were No Heirs	10
Poplevko, A. Under the Same Roof	10
Kokhtachev, V. Once Chosen	10
Mulyar, N. Service As It Is	11
Biryukov, V. Arguments of Political Officer Poplavskiy	11
Nesterov, A. An Incentive for Each Person	12

TO ASSIST THE PROPAGANDIST

Piskunov, A. Basis of Economic Reform	5
Lipskiy, F. Political Culture: Demand of the Times	6
Chibisov, V. The Contract, the Lease, the Cooperative	7
Popadin, P. Leninist Concept of Socialism	8
Gorodnichev, V. Experiment in the University	8
Utkin, B. International Potential of New Political Thinking	9
Renkas, Ya. Out of a "Vicious" Circle	9
Utkin, B. Dialectics of the International and National in Defense of Socialism	10
Belokopytov, D. Unity of the Emotional and Practical	11

OPERATION OF EQUIPMENT AND ARMAMENT

Mukhortov, Yu. And Again About a Rational System of Maintenance	1
Contest "For High Reliability of Operated Armament and Military Equipment"	1, 2, 3, 4, 5, 6, 8
Postscript to the Contest	11
Izotikov, Yu. Horizons of Technical Creativeness	2
Ryzhov, S. Know Automotive Equipment Better	2
Semykin, V. Lubricants: Purpose and Requirements for Quality	2
Tsikunov, A. Effectiveness of Engineering-Technical Training	3
Kozlov, V. Forecasting the Technical Status of Systems	3
Narozhnyi, S. Rejecting Obsolete Forms	4
Semykin, V. Lubricants: Transmission Oils	4

Navoyev, N. With Accent on Practice	4
Zhuranyuk, V. We Perfect Skills.....	4
Zotov, V. We Involve in Scientific-Technical Creativeness.....	4
Bushko, S. In a Period of Assimilation	5
Suslov, Ye. To Reliability Through Organization	5
Oleynikov, L. Methods Questions of Evaluating a Repair System for a Radar System.....	6
Tishchenko, L. Method of Adjusting Self-Propelled Guns by Output Voltages.....	6
Ovsyannikov, V. The Ascent	6
Oleynikov, L. Methods Questions of Evaluating a Repair System for a Radar System.....	7
Strelnikov, A. The Computer in the Aviation Engineering Service	7
Kozlov, V. Maintenance According to Condition.....	8
Shostak, V. Checking Gear Ratios of Self-Propelled Guns	8
Pakhomenko, S. Reconnaissance Equipment: A Personnel Problem.....	9
Daniels, M., and Dokuchayev, I. A "Difficult" Truth ..	9
Belostotskiy, G. Uneasiness	9
Izotikov, Yu. Operating the SAM System: From Quantity to Quality	10
Poturayev, V. Maintaining Communications Equipment.....	10
Apekunov, A. Chief of the Flight Technical Maintenance Unit: Responsibility and Prestige of Position.....	10
Ovsyannikov, V. Who Will Help the Innovator?.....	10
Pakhomenko, S. Reconnaissance Equipment: Problems of Operation	10
Dmitriyev, E. Problems of the Aviation Engineering Service: The Engineer's Opinion	11
Smyslov, M. Confrontation.....	11
Dzekalo, I. Aviation Engineering Service Specialists and Flight Safety	12
Ivanchenko, V. And If Not on Warranty?	12
Melyantsov, A. Training Crane Operators	12
Voinov, A. Engineer Khazanov	12

RECOMMENDED FOR ADOPTION

Bridge Amplifier	1
V7-48 Voltmeter-Tester	2

Computer Malfunction Simulation Device.....	3
VS-33 Time Relay.....	4
Santaka Personal Computer	5
"Universal" Bench-Type Machine Tool. Electrical Dielectric-Liquid Cleaner	6
General-Purpose Semiconductor Device Tester.....	7
Coded Sequence Generator	8
For Utilization of Secondary Resources.....	9
Pulse Signal Generator.....	10
Biological Purification of Water.....	11
Device for Determining Humidity	12

MILITARY EDUCATIONAL INSTITUTIONS

Maksakov, N., and Gorbachev, V. The Computer in the Command School.....	1
Aleksenko, Yu. We Aren't Hastening to the Computer for Advice?	1
Kandybovich, L. Are Exams Necessary?	1
Grigoryev, V. The Student and the Computer	2
Goncharov, E. A Time for Practical Affairs.....	2
Chervova, A. The Computer in Physics Lectures.....	2
Beshentsev, V. Acquire Knowledge	2
Improve Perestroika of the Training and Educational Process in Higher Educational Institutions.....	2
Reutskiy, V. A Teacher's Qualification	3
Avdonin, N. A Two... In State Exams.....	3
Chernushevich, S. The Chair Along the Perestroika Path	3
Fedinchik, S., and Karpov, A. Electrical Engineering Training: A Forgotten Discipline?.....	3
Radkovets, Yu., and Melnik, L. School of Practical Proficiency.....	4
Polyakov, A. By Laws of Truth.....	4
Avdonin, N. Toward the Individual Form of Training.....	5
Ulyanchenko, Ye. A Practical Class.....	5
Gilyazutdinova, V. Humanitarization of the Military Engineer's Training.....	5
Polyakov, N., and Koroteyev, V. Science in the Higher Educational Institution: Problems, Solutions.....	6
Alekseyev, A. With a Turn Toward Practice.....	6
Pigasov, R. Military Scientific Work in the School	7

Radzinskiy, Yu. Do Cadets Need a Mentor?.....	7
Mrochko, L. What a Professional Selection Group Can Do	7
Gane, V. Pivotal Training Model	8
Kosarev, V. With Stress on Practice	8
Bobrinskiy, D. Do You Speak English?.....	8
Rubtsov, V. The Chair Under Conditions of Perestroika	9
Polyakov, A. At the Turn	9
The Reader Reflects, Suggests, Shares Experience	9, 11
Maksakov, N. And What Is in the Laboratory?.....	10
Aleksenko, Yu. Computerization of Higher Educational Institution Management: Lessons and Prospects	10
Sukhovoyenko, V. Pedagogic Concerns.....	11
Yezhov, V., and Mologin, A. Training Automation and Creativeness.....	11
Riznyk, S. A Practical Direction for Knowledge	11
Shnur, Ye. Mastering the Automated Control System: Features, Experience, Suggestions	12
Petrochenko, V. Democratization and the Training Process	12
Kazantsev, G., and Sorokin, Yu. The Military Teacher. What Should He Be Like?	12

PEDAGOGICS AND PSYCHOLOGY

Senokosov, Zh. Adaptation of Young Soldiers.....	4
Pashuta, V., and Bariyev, R. Problem-Oriented Dialogue	6
Deynekin, V. Psychology of Inter-Ethnic Contact.....	8
Kovykin, G. Psychological Training During Classes	12

TOMORROW AN OFFICER

Yemchenko, G. Planned Over-Organization	1
Nikitin, S. Is It Easy To Be Active?	2
Kachaylo, O. This Proud Word of Comrade.....	3
Kutovoy, B. Understanding the Science of Mutual Relations.....	4
Poplevko, A. Prepare for Independence	5
Glukhov, Ye., and Kraynev, V. NCO Concerns	6
Volozhanin, V. Let's Take It Out on the Road	7
Lyzhov, A. Countrymen	8

Dresvyanskiy, M. On the Third Pass	9
Stepanov, A. Believe in the Dream.....	10
Poplevko, A. Not a Step Without Science	11
Morozov, O. Studies Not Only in the Auditoriums	12
Lines From Letters.....	3-12

SOCIALIST COMPETITION

Shashkov, A. The Squadron Did Not Fulfill Pledges ...	1
Turovets, T. Gathering of Competition Winners	1
Kochetov, N. Missiles Lift Off From the Range.....	2
Not for a Check-Mark.....	2
Alshin, V. How To Evaluate Results.....	3
Amirov, V. Based on Foremost Methodology.....	4
Agafonov, A. How To Introduce Experience.....	5
Poroskov, N. Running in Place.....	6
Gavrilov, V. In an Atmosphere of Renewal.....	7
Belostotskiy, G. Before Summing Up Results.....	8
Syrtilanov, M. They Don't Wait for Weather From the Sea	9
Malkov, V., and Dukin, N. In a Spirit of Competitiveness.....	10
Orlov, G. Instructive Lessons.....	11
Andreyev, G. Which Regiment Is Stronger?	12

FOR FIRM REGULATION ORDER

Bilokon, A. Indoctrinate Not Just by the Law	1
Poroskov, N. Lessons of One Conflict.....	1
Bezhko, A. An Important Condition of Combat Readiness.....	2
Shashkov, A. ...It Was a Matter of Discipline	3
Zvyagintsev, V. Universal Legal Educational Program	4
Kochetov, N. Check of Execution	6
Kochetov, N. An Entry in the Guard Report.....	7
Zhuravskiy, V. The Commanding General Commended	7
Galunov, A. But If There Is No Command	8
Stepanov, A. A Particular Fact for General Conclusions	9
Ryabokon, G. Eradicate Hazing of Conscripts by Those With More Seniority	10
Malovik, A., and Lisovenko, A. Legal Indoctrination of Cadets.....	12

**WE DISCUSS THE DRAFT OF NEW USSR
ARMED FORCES COMBINED-ARMS
REGULATIONS**

Smyslov, M. Near a Dangerous Line.....9

UNIVERSAL LEGAL EDUCATIONAL PROGRAM

Gunko, V. In the Interests of Regulation Order.....11

Gavrilov, N. Military Law and Order and Ways To Reinforce It12

Rybchinskiy, A. Right to Leisure Time12

ATTENTION: FOREMOST EXPERIENCE

Rezhets, V. Diagnostic Inspection of Aircraft Engines1

Brychkov, A. How To Activate Cognitive Activity.....7

Galkin, S. Over Mountainous Desert Terrain9

Stroykov, V. With the Help of Dynamic Aids.....12

Notes, Information1-12

**ECONOMICS OF UNIT ADMINISTRATIVE AND
SUPPORT SERVICES**

In a Regime of Thrift.....1

Yermolovich, V. Some Problems of Financial Support1

Smyslov, M. After the Fire2

Yefremova, L. Not Favorites—Proprietors.....3

Karpov, P. A Paper Stream4

Vanyushkin, M. Into the Coffers of the Zealous.....4

Vanyushkin, M. It Smacks of Profit.....5

Pavlenko, D. Place in Conformity6

Kosyrev, O. What's New in the Military Uniform.....7

Khorovets, G., and Savchenko, P. Preventing Infectious Diseases8

Cherepanov, A. Sanitary Inspection of Food Products.....9

Maleykin, V. What Did the Fire Light Up?.....10

Martynenko, V. Reflections on An Officer's Economic Culture.....12

**IN THE WORLD OF SCIENCE AND
TECHNOLOGY**

Skrebushevskiy, B. Suggested Aspects of Creating Space Vehicles1

Kirillov, V., and Teplov, S. New Technology of Solving Applied Military Problems3

Blinkov, V., and Ionov, P. Lasers in the Aircraft Industry5

Ivanovskiy, V. Opto-Electronic Equipment in Armament Systems7

Antonets, A., and Leonov, S. System for Orienting Mobile Air Defense Radar Systems.....9

Leonov, S. Phased Arrays.....11

OUR CONSULTATIONS

Smetannikov, N. Adhesive-Welded Joints of Metals1

Chertkov, V. Rank One Level Higher.....1

Romanovskiy, I., and Sabelnikov, G. Features of Operating RU-50 and TsU-M Amplifiers2

Semykin, V. Lubricants: Engine Oils.....3

Cherepanov, A. Anthroozoonoses4

Khizhnyak, V. Care of Aircraft Cockpit Transparencies6

Zaozerskiy, B. Longevity for Housing.....6

Insignia, Ranks.....6

Apekunov, A. Features of Operating Hydraulic Systems7

Onishchenko, V. Motor Pool Ecology8

Smetannikov, N. Repairing Parts by Soldering10

Petrov, Ye., and Yevstigneyev, Yu. Technical Fluids...11

Petrov, V., and Semykin, V. Lubricant Greases12

CULTURE, EVERYDAY LIFE, FAMILY

Stepanov, A. Mendelssohn's Funeral March1

Zaytseva, N. All the Ardor of Hearts2

Poroskov, N. Garrison Ecology3

Moshkin, N. One Only Has To Wish It.....3

Stepanov, A. Enlightened? It Is Not That Simple4

Tkachev, V. Our Common House5

Bondarenko, A. Don't Knock About, But Live5

Dormidontova, T. When There Is Advice and Agreement6

Stepanov, A. Profession: Surgeon7

Semenchenko, N. On Behalf of the Children7

Turovets, T. On the Motherland, Valor and Honor.....8

Maksimuk, O. Officers' Wives9

Osmachko, S. Those Who Love "Refined" Literature.....9

Smyslov, M. How's Life, "Site"?.....10

Shashkov, A. Flight Into Yesterday.....10

Ionova, N. Interrupted Experiment.....11

Smyslov, M. Responsible Assignment	12
--	----

HISTORY AND TRADITIONS OF AIR DEFENSE FORCES

Bernshteyn, A. Barrage Balloons	1, 2, 3, 5
Vanyushkin, M. Relics in Reserve, Traditions in Formation	2
Poroskov, N. Front Line, Year 1989	2
Grushkin, V. As An Equal With Men	3
Moskovskiy, Yu. Yelena Fuchkina and Her Girlfriends in Arms	3
Mikhaylov, V., Popov, K., Kolesov, V., and Kostin, A. We Fought in Egypt	4
Leontyev, A. That Memorable Battle	5
Golotyuk, V. Army Commander Shtern	6
Maslennikov, Yu. The Pilot's Tactical Arsenal	7
Shtuchkin, N. Look and See	7
Ikonnikov, S. At the Cost of His Own Life	7
Shtuchkin, N. Heroes of the 178th Regiment	8
Nikolayev, N. The Eagle's Nest	9
Golotyuk, V. To the Last Heartbeat	10
Miroshnichenko, A. Exploit at the Dawn of Aviation	10
Artomonov, A. Aviation Engineering Support Entities of Air Defense Forces in the War Years	10
Andreytsov, A. Each Exhibit Here Is a Little Part of History	11
Miroshnichenko, A. Vakhmistrov's Aircraft Flight	11
Chenakal, D. Propaganda of an Exploit	11
Burov, V. He Shot It Down With the First Attack	12

THE VETERAN'S WORD

Artemov, V. First To Attack	1
Shtuchkin, N. That Is How Experience Accumulated ..	1
Shtuchkin, N. Friend Covers Friend	2
Afanasyev, P. Allegiance to the Motherland Is Invariable	5
Saltanovskiy, V. My Friends, the Air Defense Men	5
Lagunov, V. Letters From the Front	5
Govorov, M. Always Be on Guard	9
Kolesnikov, F. Not By Numbers, But By Ability	11
Amirov, G. Every Cloud Has a Silver Lining	12

FOR REPORTS AND ELECTIONS IN TRADE UNION ORGANIZATIONS

Shirokov, A. Arouse Activeness	8
--------------------------------------	---

AT FRONTS OF IDEOLOGICAL STRUGGLE

Skorodenko, P. On Military Doctrines and International Security	5
---	---

LEGAL ADVICE

Bobrenev, V. A Law Is Created	3
Discharge To the Reserve	7
Stoyanov, A. How To Conduct an Administrative Investigation	10

IN FOREIGN ARMIES

Klimovich, Ye. Machinegun-Cannon Armament of Aircraft and Helicopters	1
Simonov, V. Preparation of U.S. Strategic Aviation for a Conventional War	2
Tarnovskiy, A. Combat Training of USAF Tactical Aviation	3
Klimovich, Ye. Program for Creating "Invisible" Aircraft	4
Chumak, V., and Manachinskiy, A. Detection of Craft Having Stealth Technology	5
Lyubeshkin, I. Southern European Theater of Operations in NATO Plans	6
Ankudovich, G., and Melnik, L. Tactical Employment of Radar Identification System	7
Nebabin, V., and Kuznetsov, I. Antiradiation Missiles in Local Wars and Conflicts	8
Tarnovskiy, A. Individual Protection Equipment of Tactical Fighters and Attack Aircraft	9
Simonov, V. Command and Control System for U.S. Strategic Bombers	10
Manachinskiy, A., and Chumak, V. On the EW System in NATO Armies	11
Radkovets, Yu. Integrated Reconnaissance and Strike Systems of NATO Countries	12

FOREIGN MILITARY TECHNOLOGY

Pegasus Booster Rocket	1
U.S. B-1B Strategic Bomber	1
B-2 (ATB) Strategic Bomber	3
F-16 Fighter	6
New U.S. F-117A Aircraft	8

R-3 AWACS Radar Early Warning and Control Aircraft	10
Italian-Brazilian AMX Aircraft	11
Italian A 129 Mangusta Antitank Helicopter.....	12

CRITIQUE AND BIBLIOGRAPHY

Chichev, V. On Armies of Capitalist Countries	1
New Voenizdat Books.....	1, 2, 3, 4, 5, 6, 8, 9
Lavrentyev, V. The Time Demands Actions.....	6
Savitskiy, Ye. Not By Numbers, But By Ability	8
Mirgorodskiy, V. "Defense Organizational Development: New Approaches"	12

PHYSICAL TRAINING AND SPORT

Dimov, V. They Won in the All-Service	2
Shelukhin, A. Olympic Champion	3
Skoblikov, V. Is Conditioning Strong?	4
Yevseyev, A. All-Around Champion	4
Ryabokon, G. "Golden" Rapier.....	5
Karyakin, N. The Pilot's Physical Conditioning	6
Antonov, A. Army Duet	7
Voronyanskiy, K. Radio Sport Awaits Changes	8

Ismailov, Kh. A Private of Army Sports.....	8
Zhelezkov, I. Officer's Multievent Competition	10
Anushkevich, B. At the Games of Friendly Armies.....	11
Shevtsov, A. "Broke Up" on the Centrifuge	12

LITERARY PAGES

He Has Been Keeping in Step Since Youth. Poems of F. Chuyev	1
Samsonov, V. Taming the Shrew	3
Time. Poems of Colonel A. Maksimenko	4
And in the Sky There Is a Glimmer of Blue. Poems of M. Fedotovskikh.....	5
Shevtsov, S., and Ignatov, V. Poems	6
Gryaznov, Ye. Warmth of Distant Sandhills	9
Maksimenko, A. Summer Ends in August	10
Maksimenko, A. A Light Supper	12

In an Hour of Leisure	1-12
-----------------------------	------

In the Wake of Our Publications.....	6, 7, 9, 11, 12
--------------------------------------	-----------------

COPYRIGHT: "Vestnik protivovozdushnoy oborony", 1989.

Seminar in Moscow on Naval Arms Limitation*90UM0302A Moscow TRUD in Russian 13 Feb 90 p 3*

[Interview, published under the heading "The Pulse of the World," with V. Kozin, member of the Bureau of the Commission on Peace to the Oceans and deputy chairman of the Public Supervision Group Over the Reduction in the USSR Navy, by V. Badurkin: "Cruise Missiles and International Security"]

[Text] [Introduction] From 6 through 10 February, an international seminar was held in Moscow on the problems of naval disarmament. For five days its participants including representatives of the public, political scientists and military from many nations of the world, discussed the possible ways for limiting the arms race and reducing naval operations in the world ocean. Our correspondent met with the Member of the Bureau of the Peace to the Oceans Commission and Deputy Chairman of the Public Supervision Group for the Reduction in the USSR Navy, V. Kozin. [End of Introduction]

[Badurkin] Vladimir Petrovich, what has necessitated the holding of such a representative public forum?

[Kozin] Regardless of the marked successes in the disarmament talks, the problem of the military danger has not ceased to be urgent. I am a scientist and am accustomed to operating with specific facts and figures. These show that it is still too early to fall into "disarmament euphoria." Judge for yourself. At present, the world ocean has been turned into a gigantic repository of lethal weapons. These are the 1,100-1,200 large surface ships and over 100 nuclear submarines with ballistic missiles on board (SSBN), and around 800 other submarines, not counting the missile launches and naval aviation aircraft. Each day some 45 SSBN are concealed in the depths of the sea carrying more than 5,100 nuclear warheads. If it is considered that just two modern SSBN are capable of destroying all the European nuclear power plants, the question of the need for talks on reducing naval forces becomes evermore obvious.

[Badurkin] In the course of the work of the seminar, the problem of the sea-launched cruise missiles (SLCM) stood out particularly....

[Kozin] This is natural because at present the SLCM are an unique stumbling block at the Geneva talks on nuclear and space weapons and, as the NEW YORK TIMES put it "an irritating obstacle in the strategic arms talks." The problem is that the modern long-range SLCM (over 600 km) with nuclear warheads are the least vulnerable high-precision strategic-level weapons. Moreover, they are constantly being improved. They are already testing versions with individually targeted multiple warheads, with supersonic speed and intercontinental range (over 5,500 km), and models are being manufactured employing Stealth technology (invisible). Thus, this is a new and more dangerous type of SOA [strategic offensive arms] which destabilize the situation not only in the world ocean but in the world as a whole.

[Badurkin] As is known, the Soviet side has proposed resolving the question of the SLCM in the broader context of reducing naval weapons and beginning to limit these systems outside the framework of the Soviet-American treaty being prepared on SOA on the basis of reciprocal obligations. How did the Americans respond to this?

[Kozin] The United States does not want to reduce these missiles. On the contrary, the initially announced plan for arming their fleet with approximately 4,000 SLCM on which one out of every five would have a nuclear warhead is evidently being revised toward an increase in both the overall number and a higher share of the nuclear component. Here they explain their "unreadiness" to place the cruise missiles under reliable control by the impossibility of finding an effective method for verifying the presence of the nuclear innards. Washington has stated that here remote verification is unrealistic and a direct inspection on board the seagoing carriers of the cruise missiles is unacceptable.

[Badurkin] But the joint Soviet-American experiment conducted on the Black Sea in July of last year in monitoring the presence of nuclear weapons on board the missile cruiser "Slava" confirmed the fundamental possibility of a remote monitoring method.

[Kozin] In my view, the Yalta experiment is of indisputable value, particularly for the Geneva talks. It demonstrated the possibility of developing technical monitoring devices which should eliminate the fears of the American side over the necessity of allowing Soviet inspectors on naval ships. This is important both from the viewpoint of monitoring the limitations on long-range, nuclear-armed naval cruise missiles as well as in terms of a backlog for the future, when it will be a question of the restricting and subsequently the prohibiting of sea-launched nuclear weapons as a whole.

But the problem is that this measure was of a nongovernmental sort. It was organized and carried out by scientists from the USSR Academy of Sciences and the U.S. National Council on the Protection of Natural Resources.

[Badurkin] Could you please tell us in more detail how this experiment was carried out?

[Kozin] Participating in it from the USSR Navy was the missile cruiser "Slava" with a regular cruise missile with a nuclear warhead and a large landing ship with a radiometric unit. For remote monitoring they used a Soviet helicopter facility Sovetnik [Advisor] and for the direct measurements the American and Soviet gamma spectrometric equipment. The results obtained in the helicopter overflight of the cruiser were compared with contact measurements directly on the body of the launcher. It turned out that Sovetnik was capable of detecting the presence of nuclear weapons at a distance of 60-70 m from the carrier ship.

[Badurkin] If you are not against this, let us move away somewhat from the main subject of the conversation. The development and operation of such facilities probably cost a good deal of money?

[Kozin] Of course, and for this reason in the process of developing Sovetnik there were plans to give it also a "civilian specialty," for example, in ecological monitoring. As far as I know, the Atomic Energy Institute has completed the development of a two-channel neutron and gamma spectrometric helicopter installation. The helicopter carrying such equipment in a single flight can "inspect" an enormous area and obtain very accurate data on the state of the radiation background characteristics in the location areas of nuclear power plants and areas with anomalous background radioactivity.... In addition, Sovetnik could be our contribution to a broad international system of nuclear weapons monitoring facilities. At present, this installation is in a state where we could sell it. Incidentally, proposals for purchase (in truth, as yet unofficial) have already been received.

[Badurkin] Can Sovetnik be fooled?

[Kozin] Yes and no. If gigantic floating nuclear weapons depots are developed covered with concrete, polyethylene or zinc and for each warhead an individual protective device is made, then it is possible to "hide" from inspection. It is also possible to sharply reduce the neutron radiation of the nuclear innards by employing highly enriched uranium. All of these are extremely expensive measures. From the viewpoint of the criteria chain "cost—effectiveness—advisability," this does not hold up to any criticism.

The participants of the Soviet-American seminar who reviewed in December of last year the results of the Black Sea experiment agreed that the methods employed in it, even on the current technical level, provide real opportunities for inspecting for nuclear weapons at sea.

We favor a radical and comprehensive system for monitoring the SLCM. In Geneva, the Soviet representatives have proposed an entire realistic scheme of measures for inspecting the deployment of these missiles.

[Badurkin] The further development of Soviet-American relations possibly will make it possible to resolve this problem in the interests of providing guaranteed global security....

[Kozin] Unfortunately, all the programs for the deployment of the SLCM are in full swing. The U.S. military-political leadership has openly stated that the deployment of the SLCM will confront the USSR with a "completely new list of alarming unknown quantities" and impede its strategic planning.

And these are not merely words. Just one missile strike group (MOG) armed with Tomahawk SLCM (with a TNT equivalent of 200 kilotons and range of 2,500 km) even with minimum strength (a battleship, cruiser, destroyer and escort frigates) is capable of unleashing against the USSR a strike which in power is sufficient to

destroy approximately 640 such cities as Hiroshima. And there are four such MOG in the U.S. Navy. And if the cruise missiles destroyed in accord with the Treaty on Medium-and Shorter-Range Missiles and located in the NATO Western European countries could hit objectives on Soviet territory to a line of Moscow and Leningrad, with ships located, for example, in the Barents Sea, such missiles would be capable of reaching the Urals.

Clearly, the Soviet Union cannot remain indifferent to such a situation. Its SLCM also could pose a number of complicated problems for the United States and "complicate its planning." However, we feel that no one needs mutual rivalry on this question. "I realize that the Soviet Union used the combat capabilities of the American SLCM with concern," admitted the U.S. Navy Chief of Staff, Adm C. Trost, during a visit to the USSR in October of last year. Here he complained that the Soviet SLCM were targeted at American aircraft carriers.

How could things go so far if there is such reciprocal concern? The USSR has long been ready for talks on the limiting of cruise missiles and for reciprocal inspections of the fleet combat units.

Rear Adm Kashauskas on Political Atmosphere Surrounding Baltic Fleet

90UM0393A Moscow SOVETSKAYA KULTURA in Russian 24 Mar 90 p 8

[Interview with Rear Adm P.V. Kashauskas, first deputy chief of the Baltic Fleet Political Directorate, by Capt 2nd Rank A. Andrushchenko, under the rubric "Yesterday, Today, Tomorrow: From the Epicenter": "It Is for the People to Determine Their Destiny"; (The complete interview will be published in the magazine MORSKOY SBORNIK)]

[Text] Interview with Rear Adm Povilas Vintsentovich Kashauskas, first deputy chief of the Baltic Fleet Political Directorate:

[Andrushchenko] Povilas Vintsentovich, the subject of our interview is a complex one, a fact confirmed by events in the Baltic area. How should they be assessed from the standpoint of the Baltic Fleet's interests? As a Baltic native, born and grown up in Lithuania, what is your viewpoint on this?

[Kashauskas] Indeed my entire life is linked with the Baltic area. I was born in the village of Mikolitskyay, Kretingskiy Rayon, in 1935. My parents had a small farm. My father earned extra income by working at the post office. In 1949 we moved to Klaypeda. I entered the navy at the age of 19. We Lithuanian draftees were not put off by the 5-year service term. On the contrary, we went into the Navy with a feeling of great pride. During the 35 years I have devoted to the navy I have been a seaman and a cadet and gone from secretary of the Komsomol committee to my present position. And all

that time the Baltic area has been my home, the Baltic Fleet my permanent station.

[Andrushchenko] In short, you have something with which to compare the processes occurring today. Some social scientists feel that they are a result of the awakening of national self-awareness in peoples. What is your opinion about that?

[Kashauskas] I feel that one should speak very cautiously about some sort of renaissance in this area of the Baltic peoples' spiritual life. As though just yesterday there were no nationalistic feelings at all, and today a flowering garden has replaced the desert. This kind of primitive approach plays into the hands of the advocates of arrant nationalism and those who would overthrow our nation's traditions of friendship of peoples. A great deal of attention has been given to the development of each ethnic group even in the past, of course. Latvia, Lithuania and Estonia have added to and developed their original values. This occurred under the system of administration by decree, however, when it was felt that the center knew best how each people, its economy and culture should develop. Conflicts built up, of course, and perhaps resentment. Everything which was concealed has been exposed since the start of the restructuring, in the era of glasnost. Previously classified pages of history are now becoming public, and this too is agitating people. Many are in a hurry to speak their minds. Demonstrations, mass meetings, picketing... have become common occurrences.

A kind of strange game of politics, I would call it, is being played, in which the worse relations are with the central Union agencies, the better things are for certain local leaders.

[Andrushchenko] The isolation syndrome has a clearly defined anti-army and anti-navy slant. What do you think is the cause of this?

[Kashauskas] You will agree that it is not pleasant for us military men to read such offensive slogans as "Take your overcoat and go home!" or "Out of Latvia, Russian clodhoppers!" But let us forget about the offensive part and get down to the essence. Whom are they asking to go home? After all, 25% of the draftees from Latvia serve in their native republic. Why does the clodhopper have to be Russian? Members of more than 60 ethnic groups serve in the Baltic Fleet alone. The figure is apparently as large in the Baltic Military District.

[Andrushchenko] Baltic Fleet political organs, commanders, political workers and Communists are obviously going to have to go through many more trials stemming from the manifestations of national isolationism. We know that in Lithuania Komsomol members who have expressed a desire to join the Communist Youth League of Lithuania are presently re-registering. Those who have received their cards for the Communist Youth League of Lithuania include Baltic sailors. What do you think of that?

[Kashauskas] Frankly, it is an extraordinary situation. I refer both to the decision adopted at the 22nd Congress of the Lithuanian Komsomol and to the actions of certain young sailors of Lithuanian nationality. I feel that they both

represent a challenge. It is a challenge to that state in which our Komsomol finds itself. It is a challenge to the society, which for many years saw the youth obediently follow the will of their elders. It is a challenge to formalism and routine, which will not give up without a battle. It was not thought out very well, to be sure, and was based on the extremism of youth. The challenge has to be accepted, but most important, it must be responded to. Not with resentment and not with rage or sermonizing, but with deeds.

When this interview was being readied for publication our correspondent E. Lunev telephoned Kaliningrad and asked Rear Adm P. Kashauskas to describe his feelings about what is occurring in Lithuania today:

What emerged from the meeting hall of the LiSSR Supreme Soviet and swept through the entire nation is painful to the heart. I believe that the latest legislative acts of the republic's Supreme Soviet were not only hasty and erroneous but also extremely dangerous, that they are causing irreparable moral and material harm, primarily for the Lithuanian people themselves. I am also troubled by the policy of hushing up the truth which is persistently pursued in Lithuania today by leaders at all levels and of all persuasions. They are deluding the Lithuanian people about what awaits them should the republic leave the Union. This is particularly true in the economic area and therefore also in all areas of social life. There is practically no discussion even about alternatives or life in a renewed federation.

I believe that the fate of the Lithuanian people will be decided by the people themselves. Article 6 of the Constitution of the USSR was barely altered, it seems, when Sajudis, without making any adjustments, assumed the role of "leading and guiding" force. It reminds me of a maneuver called "all at once" in the navy, a move toward that of which we have just rid ourselves on the state scale.

My people were always distinguished not only by their industry but also by their sober and deliberated approach to events around them. I am confident that today too they will figure out what the illusions are and what the harsh realities. And they will make the fateful decisions themselves, without the prompting of zealots of national egotism.

Answers to Readers' Questions on 'Aircraft-Carrying Cruiser'

90UM0518A Moscow VOYENNNYYE ZNANIYA
in Russian No 4, Apr 90 pp 16-17

[Article by A. Popov under "Journal in the Journal" rubric: "Heavy Aircraft-Carrying Cruiser"]

[Text] After the reports that the Soviet Union is testing the heavy aircraft-carrying cruiser (TAKR) [tyazhelyy avianesushchyy kreyser] "Tbilisi," the editor's office of VOYENNNYYE ZNANIYA is receiving many letters with the request that we tell about this ship and, the main thing, report whether or not it is an aircraft carrier. Will our navy receive the same kind of ship that navies of the leading capitalist countries have?

Dear friends! We are not yet able to give complete answers to the questions asked by Kh. Mudarov (Checheno-Ingushskaya ASSR), A. Pilnik (Minsk), Kh. Balkarov (Nalchik) and others. Nevertheless, our permanent author A. Popov, who has long collected data on navies, tried to answer many of them.

Under the terminology accepted in our Navy, the TAKP "Tbilisi" is an aircraft-carrying ship [avianesushchyy korabl]. This category includes all surface warships, equipped with flights control systems, hangars, a flight deck and technical means for servicing.

The idea of the creation and development of a project for the first aircraft-carrying ship belongs to Russia. In October 1909, the renowned Russian flier and ship engineer Captain L. Matsiyevich presented a memorandum to the chief of the Main Naval Staff in which he substantiated the idea of building an aircraft carrier [avianosets] capable of carrying airplanes on board. At the beginning of 1910, Lieutenant-Colonel M. Konokotin proposed converting the obsolete battleship "Admiral Lazarev" into an aircraft carrier. The Main Naval Staff and Naval Technical Committee responded positively to Konokotin's aircraft carrier project and the eminent ship builder A. N. Krylov wrote: "The realization of the project will not present any difficulties and will not cause any delays." But Konokotin's project remained on paper.

Meanwhile, the establishment of a new class of warships did, nevertheless, begin in the years 1916-1918 but, alas, it was not here but in England, where the three battle cruisers "Furious," "Courageous" and "Glorious" with a displacement of 22,500 tons each were converted into aircraft carriers. The "Furious" was the first to be converted: they removed the bow turret of the main battery and used all of the area up to the bow deck house for a flight deck. The aircraft of that time were able to take off rather easily from here but in landing they frequently crashed into the superstructures or rolled overboard. Then they removed the stern turret and equipped a stern landing area. But this measure did not resolve the matter either—there was no end to accidents. After that, they joined the stern and bow areas in a single flight deck and moved the masts, superstructures, tubes and artillery to the right side. Thus, the aircraft carrier attained its classical form proposed by L. Matsiyevich and M. Konokotin.

In the United States (1928), hulls of battle cruisers also served to build the similar aircraft carriers "Lexington" and "Saratoga" (displacement of 33,000 tons each). Battle cruisers were converted into the two aircraft carriers "Kaga" and "Akagi" with a displacement of 26,900 tons each for the Japanese Navy. France converted one of the battle cruisers of the "Normandy" class with a displacement of 22,146 tons into an aircraft carrier. It was given the name "Bearn."

The first specially built aircraft carrier was the English "Hermes" (11,900 tons), which went into operation in 1924. It is necessary to note that the absence of clear operational-tactical views on the utilization of aircraft carriers in modern

warfare held back the development of the new type of warships in Germany, Italy, France and the United States.

In the USSR, two trends had been determined by the mid-1930's: to build primarily submarines or to give priority to large surface ships. The results of the discussion were summarized by R. Muklevich, chief of the naval forces of the RKKA [Workers' and Peasants' Red Army]: "We will build different ships needed for the defense of the country and not for a war to control the seas or to dominate the oceans. For this reason, there is no need for battleships and large cruisers...."

In 1936, however, the government made a decision on the building of a large "sea and ocean fleet," in connection with which Fleet Flag Officer First Rank V. Orlov, who by that time had become chief of the Naval Forces of the RKKA, presented a plan to the Labor and Defense Council for a 10-year shipbuilding program. It provided for the delivery of a series of powerful battleships and heavy cruisers to the fleet and for the designing of an aircraft carrier (two, according to other information). In the years 1938-1940, they laid three battleships of the "Sovetskiy Soyuz" class, two heavy cruisers of the "Kronshtadt" class and seven light cruisers of the "Chapayev" class, but the aircraft carrier was not designed. "It seems to me," wrote the former people's commissar of the Navy N. Kuznetsov in the book "Nakanune" [On the Eve], "that Admirals I. Isakov and L. Galler, who took part in the development of the program, understood the true significance of the aircraft carriers. But they could not defend their point of view. They were not especially listened to."

Meanwhile, World War II began and along with it the verification of the combat-worthiness of the aircraft carriers. On 12 November 1940, deck planes from the English aircraft carrier "Illustrious" delivered a strike against the naval base at Taranto and disabled five Italian battleships. Within 100 minutes on 7 December 1941, 353 aircraft that took off from 6 Japanese aircraft carriers sank or disabled 8 American battleships located at Pearl Harbor (Hawaiian Islands).

In June 1942, in turn, the Americans with the help of their aviation sent four Japanese aircraft carriers to the bottom at the island of Midway, depriving the enemy fleet of offensive possibilities until the end of the war (for more details about this, see VOYENNYE ZNANIYA, No 11, 1989). The United States then understood the importance of carrier forces and by the end of World War II its navy had 24 attack aircraft carriers of the "Essex" class and 8 light, 74 escort and 3 obsolete ships of this class.

Aircraft carriers began to be designed in the Soviet Union in the postwar period. A powerful surface and submarine fleet was also built. In the mid-1950's, however, voluntaristic tendencies were again manifested. N.S. Khrushchev made an arbitrary decision on the suspension of the construction and dismantling of a number of large artillery ships for metal as well on the stopping of work on the designing of aircraft carriers.

Events then developed as follows: at the beginning of the 1960's, the sea-based strategic nuclear forces established in the United States had an especially great influence on the development of naval practices. The missile-carrying nuclear submarines of the "George Washington," "Ethan Allen" and "Lafayette" class, armed with ballistic missiles, were brought into the American naval forces (see VOYENNNYYE ZNANIZA, No 1, 1988). The USSR organized up-to-date antisubmarine forces as a countermeasure. And the antisubmarine cruisers "Leningrad" and "Moskva" armed with helicopters joined the Black Sea Fleet in the years 1967-1969.

Guided missile cruisers, multipurpose nuclear submarines and naval missile-carrying aircraft appear here as countermeasures against another component of the American nuclear forces—attack aircraft carriers. But we certainly have lagged behind in the development of air support systems for these diverse forces. For a long time, the navy did not have aircraft-carrying ships armed with helicopters.

Not until 1975 did the first aircraft-carrying cruiser, the "Kiev," go into operation. One after another, the "Minsk," "Novorossiysk" and "Baku" of the same class followed it into the navy. They have a displacement of 40,000 tons, a length of 273 meters, a breadth of 50 meters, a draft of 12 meters and a crew of 1,300, including 300 officers. On board are Yak-38 aircraft intended for strikes against targets in the air, on the surface of the water and on land and Ka-27 helicopters used for the search and destruction of submarines, the performance of rescue operations, etc.; 4X2 container, 2X2 and 1X2 missile system launchers; 2X2 medium caliber artillery mounts; 8 small-caliber artillery mounts; 2X12 rocket-propelled depth charge launchers. There is a mechanical boiler and turbine installation.

The English-Argentine conflict of 1982 about the Falkland Islands (Malvinas) had a great influence on the further construction and improvement of aircraft-carrying ships. The English were successfully able to use their aircraft-carrying cruiser "Invincible," whose aircraft carried out the combat operations of the English task force. The "Invincible" went into action on 11 July 1980. It has a displacement of 19,800 tons, is equipped with a gas turbine power plant of 112,000 horsepower that provides for a full speed of more than 28 knots. The ship has a crew of 1,000, including 131 officers. On board are 5 VTOL "Sea Harrier" aircraft and 10 "Sea King" antisubmarine helicopters. In addition, it is equipped with a launcher for "Sea Dart" surface-to-air missiles. The "Sea Harrier" aircraft (its tactical-technical specifications) and combat capabilities are very close to those of the Yak-38, according to Western specialists) performs the functions of fighter, attack aircraft and reconnaissance aircraft. Its maximum speed is 1,180 km/hour, the service ceiling is 15.2 km and the action radius is 460-740 km. Subsequently the naval forces of Great Britain added two more aircraft-carrying cruisers of this type. They do not now have "classical" aircraft carriers.

In 1985, the Nikolayevskiy Shipbuilding Plant launched and is now testing the heavy aircraft-carrying cruiser

"Tbilisi." At the same time, the TAKR "Riga" of the same class was launched. The new ships have a length of about 300 meters and a breadth of 70 meters. The power plant is 200,000 horsepower. They will accept up to 60 aircraft. In contrast to American aircraft carriers, the bow of the TAKR has the form of a ski jump to facilitate the takeoff of aircraft (in the case of the Americans, they take off with the help of steam catapults). Arresters—devices with thick cables to slow down aircraft setting down on the deck—are located nearer the stern. The fighters Su-27 and MiG-29 and the training version Su-25 have already made their first takeoffs on the "Tbilisi." The aircraft take off and land in the usual way, just like at an airfield.

Thus, a start has been made. We have an up-to-date aircraft-carrying ship. Do we need TAKR's? Well, let us remind the readers that the U.S. Navy has 15 multipurpose aircraft carriers, including 6 with nuclear power plants, carrying more than 1,200 aircraft and more than 90 helicopters (see VOYENNNYYE ZNANIYA, No 9, 1987) and they are continuing to build them. True, U.S. Secretary of Defense Cheney recently declared that they plan to reduce their number by one in 1990-1991.

In assessing the existing situation, Chief of the General Staff of the USSR Armed Forces General of the Army M. Moiseyev, noted: "Our constant concern is evoked by the hundreds of American military bases located around the Soviet Union, carrier battle groups, deck aircraft and the naval forces of the United States that have a substantial advantage over the Soviet Navy...." The recent summit on Malta confirmed that our partners in negotiations do not intend to discuss "naval affairs" in the near future.

Therefore, welcome, our new aircraft-carrying cruiser!

Copyright: Izdatelstvo TsK DOSAAF SSSR "Patriot", "Voyennyye Znaniya", 1990

Cherkashin on Causes of Loss of Komsomolets *90UM0535A Moscow SOVETSKAYA ROSSIYA* *in Russian 26 Apr 90 p 4*

[Article by Admiral N. Cherkashin: "Underwater Fire: Let Us Return to the Tragic Fate of the Submarine Komsomolets and its Crew"]

[Text] Top Secret Record. On August 6 1984, the nuclear submarine Komsomolets (K-278) completed a dive that was unprecedented in the history of domestic navigation: The needle of its depth gauge stood still at the 1000 meter mark! No other military submarine in the world could seek refuge at this depth—it would be crushed like an egg. But this crew was protected by a super-durable titanium shell.

Captain 3rd Rank Aleksandr Borodin, junior navigator of the Komsomolets' first crew:

"The sonar technician who listened to our dive from the surface ship supporting us said: 'I almost turned gray because of you.... There was such a squeak and such a

grinding sound....' But the durable hull withstood [the pressure]. The compression was such that my bunk bent like a bow.... Admiral Chernov, the senior officer on board, contacted the compartments on the combat line and, while looking at the depth gauges, said something not entirely 'by the book': 'Stop for a moment!...' Later, he congratulated everyone and they brought the flag through the compartments. We did not rush to surface. 'You need to consolidate your success,' said Chernov."

Borodin recalled this and I involuntarily became inspired by the excitement of that dive. They did not proclaim it in the newspapers and only now can we enter it into the Guinness Book of Records. I quietly rejoice: We really managed to build this miracle ship despite all our misfortunes and problems. We really managed.... Maybe we only have something to be proud of in submarines and space craft.

Who could have thought that five years later the depth record holders would find their eternal peace at the location of their record?! The titanium coffin of the Komsomolets, its torpedo tube covers crushed by the blow, is buried in silt on the underwater slopes of Lofoten Basin—90 miles southwest of Medvezhiy [Bear] Island.

Thus, a unique miracle ship died and 42 courageous lives were suddenly cut short. For a year now, the Government Commission has already been trying to find answers to the multitude of questions that merge into one angrily sad inquiry: "Who is to blame for this tragedy?"

The first (the simplest and most customary) thing that came into the minds of those searching for the truth was the crew is to blame.

"How did you manage to sink such a ship?" Yu. Zelen-skiy, captain of the first crew, was taken aback and [said] in annoyance to those submariners who still had not reached shore. He slung these words at them on the deck of the nuclear cruiser Kirov where those saved were transferred from a floating fish factory.

And at the training center where both crews were "trained," they rushed to prepare a negative reference on the Komsomolets' dead Captain Vanin while predicting the high command's normal thought processes: "Criminal negligence...."

For "no accident rate is justified or unavoidable. People create an accident rate and the conditions for it arise through their disorganization and ignorance." For decades, commissions approached the investigation of the latest maritime drama with the former Navy Commander-in-Chief's strict credo. "We do not need to sow doubt in the reliability of Soviet military equipment. Personnel cause all failures and breakdowns." With these words, vigilant censors crossed out any hint of chicanery with which any optional military technical system is fraught. And as consolation to any author's pride, they pointed to the appropriate paragraph in the great "List of Prohibitions." "And even now I can still hear that mournful wet squeal that a section of the light hull had made for two months while moving over

my head and which had been peeled away by the force of waves from precisely over my bunk. It went on and on and banged for a short time in the depths of the Mediterranean Sea, having left a breach the size of half a tennis court and exposed high pressure air tanks to a pre-winter storm... A similar submarine had returned from its combat patrol earlier than normal only because workers of one of the NII's [Scientific Research Institutes] glued the plastic section to the submarine on the day of the Great Easter Feast but we do not glue them like that anymore."

But we "do not need to offend our heroic working class" a magazine editor pointed out to me while crossing out the "Easter" episode. Under the protection of the paragraphs of the "List of Prohibitions" and the adherents of the honor of the working class, the shipbuilding monopoly felt as calm as it is behind the concrete barriers of their wharves. Neither public rebukes nor shadows of doubt.

How many times have we heard these assertions: "Accept this ship (house, plant, or airport) on time and we will bring (repair, equip) everything in the best light.... Just do not cut the bonuses and do not offend the working class!" And we accepted and we did not cut and we did not offend—from five-year-plan to five-year-plan and from decade to decade. Permanent representation of every possible firm grows like mushrooms near military docks. The jackets of civilian "specialists" appear on decks and in compartments for years. Adjustment, completion, and upgrading of various systems sometimes goes on for years. A unique code of responsibility has also developed here. Civilian employees of these firms are responsible for everything that breaks down on a ship while anchored at the base and the crew is responsible for everything that breaks down at sea. This is how it has "historically developed." In general, that is how it is throughout the country....

And suddenly this inconceivable decree—about awarding decorations to a crew that had lost its ship. Inconceivable because until this time seamen who had lived through a similar experience in the best of circumstances were not punished but the label "accident-prone crewmen" stuck tightly to them.

"Good heavens, has our attitude really changed toward the man in general and toward naval personnel afloat in particular!?" This joyous amazement certainly did not arise only in me while reading the decree. As I am certain that a well-known apprehension arose among some people: "Who are being decorated? Accident-prone crewmen?!"

The widows of the deceased sobbed and earth was placed in fresh graves and suddenly maxims with an insidious implication appeared in the newspapers: "Can we really talk about the competent actions of the crew?" (A. Gorbachev, KOMSOMOLSKAYA PRAVDA), "Competent and selfless actions—are not one and the same thing. And can there be competent actions with the level of actual combat training that the Komsomolets crew had?" (V. Yunisov, KOMSOMOLSKAYA PRAVDA). "The crew was weak and should it not have been 'improved'?" (A. Gorbachev). "A man who is not

capable of understanding what is occurring on a boat in a matter of minutes will do nothing in the submarine fleet." (Ye. Selivanov). And A. Yemelyanenko, author of the weekly SOBESEDNIK, not waiting for the conclusions of the experts, simply finds the "primary cause of the tragedy" in the issues of "crew training, professional skill of the personnel, and its ability to fight for the ship's survival."

What is in these hasty questions and assessments—is it an attempt to more rapidly determine the extreme on the continuum of direct and indirect culprits? An attempt to divert the ranting and raving of public anger from the monopoly of the Ministry of the Shipbuilding Industry? Or the fashionable pose of a hatchet man-accuser? No matter what it is, the theme is painfully familiar: Comrade submariner, answer me, how did you manage to wreck this marvelous ship?!

First about the ship. It was marvelous only in its capability to go to a depth that is beyond the capability of all modern submarines. But also because it was the first of its kind, the Komsomolets needed some structural redesign from the beginning, that is, like all leading ships it was not perfect. Even American experts are talking about this.

But then again, the snag is not nearly in the unavoidable structural defects of the first-born but in those species-specific technical defects that the nuclear titanium record holder inherited from all previous generations. Rephrasing the biblical aphorism, we can say: They poured old wine into new vessels. They installed standard, mostly obsolete (but due to their series production—cheap) electrical devices into the latest, according to its miracle characteristics, titanium hull, those same devices that have caused submariners' mournful wail in the popular magazine: "Can you imagine a long underwater cruise of many months when nearly every day something suddenly catches fire or bursts? This is already not a cruise—it is a madhouse! These are the kind of APL's [nuclear powered submarines] they build for us, the submariners." If necessary I am prepared to illustrate this rhetorical exclamation with my own cruise diary and with the testimony of many experienced submariners.

Ye. Selivanov, a missile submarine captain made wiser by the bitter experience of a compartment fire, is correct a thousand times over: "While still at the design level and during the construction stage of a ship, we need to exclude the very possibility of the outbreak of a fire. A system of preventive measures must be found...."

"Oh, if we captains," his colleague, Captain 1st Rank E. Rybakov echoes him, "were involved just in the formation of the design task, not to mention the design. We could certainly suggest something. But everything is top secret..."

And if we talk about the primary cause of the K-278 tragedy, it is the cause of the explosive fire that suddenly broke out in the ill-fated seventh compartment. The entire remaining chain of events is only a derivative of it. After all, submariners do not go to sea to extinguish fires. They have their own somewhat more complex tactical

and combat missions. Their standard of training and their trade—a target destroyed from under the water—is measured more highly. If I acquire a color television and later they accuse me of destroying the device by extinguishing it, but not according to instructions, after it suddenly caught fire, you will agree that this is a peculiar way to pose the question. It is too bad that other accusers ignore this peculiarity while looking for the primary cause of the tragedy in the inability of the second crew to conduct the struggle for survival.

Incidentally, even Senior Seaman Bukhnikashvili and Warrant Officer Kolotilin, on whose fatal watch the initial minutes of the accident fell, were "stock" of the first crew. There is no denying—the first crew was more experienced than the second. This is also understood: Zelenskiy's people knew the ship from the building berth, tested it, and went to sea more frequently. But because of this, it does not altogether follow that Vanin's crew was undertrained, that they were not capable of fighting the fire, or that their "subcortex did not operate when the tendons twitched and the brain did not switch on...." Arguments?

Both crews were trained on the same simulators and according to the same program. Naturally, far from all system mock ups of this unique ship were at the training center and then the second crew was sent to study them at those institutes and at those plants where they were developed. Hardly anyone knows that almost all middle echelon command staff of Vanin's crew and also the executive officer and second in command were originally from the first crew. The overwhelming portion of the "understudies" had the experience of long-range underwater navigation.

Now, having read all variations for extinguishing a fire in smoke filled offices and having also called on my own and foreign experience for help, critics of the second crew throw rocks at Vanin's back with ease:

"He did something or other improperly, he did not order someone or other to do something, but he could have acted this way and then it would...." But the last word always remains with the deceased captain. We do not know and we will never learn what he knew while making his decisions. It is impossible to judge what we have not heard.

Certainly, like in any battle, Vanin's crew made their miscalculations and errors. But the high commission did not recognize any of them as fatal or as synonymous with the destruction of the ship. Even the fact that my writer colleague used his pen to implicate the captain's guilty and that this accusation was spread throughout the country in a newspaper with a circulation of 22 million: "Further—more. High pressure air (VVD) was turned on to blow out the aft group of main ballast tanks and additional pipes in the burning compartment were

loaded contrary to the manual and they exploded: The red-hot sides [of the pipes] could not withstand the pressure and the high pressure air entered into the blazing compartment which created the effect of a blast furnace here."

Here is a small detail. Before "the red-hot walls of the pipes exploded," plastic gaskets were melted off them which also introduced high pressure air into the compartment. Previously, these gaskets were manufactured from red copper (which is somewhat more heat resistant than plastic). Having excluded the possibility of a fire from their calculations, they replaced ferrous metal with polyamide for the noble purpose of saving the people's money. I am terribly familiar with "being penny wise"! And we discover these "minor details" in nearly every charge set forth against the surviving submariners.

That is why the investigation of the causes of the catastrophe is proceeding with such difficulty. Interests, ambitions, and offenses, both departmental, group, and individual, have become entwined into one tight ball. Each version parries counter-versions and each conclusion has its own objection...

The positions of the parties have become quite clearly polarized. The ship builders: The ship was good but the crew was poorly trained. The Navy: The ship was defective and the crew was adequately trained.

The second crew proved its worth through its errors. And, obviously, it will still be paying for them through the remote consequences of supercooling. But other crews will also pay for the designer's error and probably more than once. Even the most violent detractors of the victim crew, while discussing the main causes of the catastrophe, are compelled to score a goal in their own net: "Accident prevention in this nuclear submarine (the Komsomolets, N.Ch.) remained at the level of the beginning of past years. There is nothing new to protect it from electric sparks. Any flash and everything is immediately sheer hell. No, as far as protection from an accident goes, Soviet designers did not go very far." And when that same critic reproaches the captain because he allegedly did not immediately assess the entire danger of a fire and therefore "criminally delayed surfacing" etc., I want to immediately remind him about his words that are written above and ask: "And tell me, sir, how many of these 'short circuits,' 'ruptures,' 'flash points,' 'blazes,' and 'small fires' were there on your watch and, if not on yours, then in the bitter experience of your coworkers?" Statistics are depressing in this regard. And really does psychological acclimatization to the constant threat of fire not arise from this and afterward when it nevertheless occurs—the primordial certainty: Let us extinguish it and let us cope with it, and has this not happened?

But more than once we have not had to wait. The words "fatal combination of circumstances" currently cause an ironic smirk: It is too easy a justification. Having devoted many years to the study of the circumstances surrounding the losses of the battleships Imperatritsa Mariya, Peresvet,

and Novorossiysk, the steamship Admiral Nakhimov, and several submarines, this incomprehensible algebra of bestowed chances, lost possibilities, fortunate occurrences, and deadly surprises has always struck me. The Komsomolets tragedy was based on its most complicated inequalities and equations. There is a special language about them. Let us talk about something else right now: No matter how frequent or how similar "underwater fires" are, it is impossible not to agree with the sad conclusion of the authoritative British submariner-rescuer W. Shelford: "The possibility of a repetition of the causes of accidents on submarines is extremely low and therefore the recommendations of any commission hardly turn out to be useful in the future."

The conditions under which the fire on the Komsomolets occurred would not have and I hope will not again occur if the polyamide gaskets are replaced with red copper ones. But this does not nearly exclude new disasters because submarines are zones of heightened risk. They are dangerous even at building berths, they are dangerous at the dock, they are dangerous at sea, and they are dangerous underwater. It is only a question of to what degree. In recent years, American engineers have succeeded in reducing the fire and explosion hazard of their nuclear submarines.

I am prepared to bow to the superhuman efforts of Soviet designers who, with all of our chronic "shortages" of computer "power," have not only not surrendered the world position in such a scientifically intensive branch as submarine shipbuilding but have even managed to surpass their overseas rivals in something. If Thresher's designers had worked within the walls of any Moscow or Leningrad KB [Design Bureau] even for a day! I know in advance everything that a nuclear submarine designer will tell me. Listen both to him and to a submarine captain and you will be struck by the fact that both of them are saying the same thing that a doctor, teacher, pilot, or miner in the community complain about: "They do not provide... there is not enough... they do not supply... they do not authorize... they do not..." Ultimately, everything is reduced to the elementary disorganization of labor.

Disorganization! There it is—the key word! They often conceal it under the flap of carelessness, that is, we need to understand disorderliness, unconcern, and irresponsibility... Yes, all of this is so but it is deeper, deeper—what does this "carelessness" blossom into? Into disorganization of the most fundamental and most natural course of production or of service?

What do the conductor of a symphony orchestra and a submarine captain have in common? Both seek the utmost harmony of his orchestra or of his crew. But make the conductor responsible for the serviceability of the musical instruments, for the outward appearance of the orchestra members, for their professional training, for their way of life, and, finally, for removing snow around the philharmonic society and I assure you that the conductor will not find five minutes to leaf through

the musical score. And really the score of a naval battle is no less complex than the polyphony of some concert. Instead of learning the "grammar of battle and the language of the battery," captains, as both technicians, navigators, torpedomen, and missileers, too, dash after the younger generation in remote areas, organize the repair of barracks, look for spare parts, conduct political activities, and lead their seamen to unload rail cars, to remove snow, to guard warehouses, and to meet chiefs... But then again, look around and you will see that all of us very rarely manage to engage in our own primary duties and, before we get our hands on them, we must carry out a multitude of all kinds of other minor activities that entirely different people should be engaged with and they, in turn, for some reason are forced to carry out someone else's duties. Is this not the cause of our "totalitarian semi-professionalism"?

After a series of catastrophes and accidents in the submarine fleet, something like a "post-Tsushima" syndrome has arisen in society. This is particularly sensed in the sarcastic tone of certain newspapers and magazines. With that same ease with which in his time "Incompetent Czarist Admiral Rozhdestvenskiy" was accused of being the primary culprit of the Tsushima Defeat, the authors of other irate articles, while stating that they are against a search for the "extreme" and consequently the only culprit, nevertheless stubbornly lead the reader to the thought that such a scoundrel exists and that he is being skillfully concealed at some level of the Navy hierarchy. I do not know if the removal of Rear Admiral O. Yerofeyev from the position of flotilla commander or Admiral Gromov from the position of commander of the Northern Fleet has tempered their "thirst for blood." And were Nakhimov or Ushakov assigned to replace them—ships would nevertheless continue to burn and sink since the roots of the current accident rate are located much deeper than the official negligence of some officer. They go back to the 1950's (I do not dare track them any deeper than that) when a great submarine armada was being laid at the country's building berths. The pace, rhythm, and time periods—everything was determined by the passion of pursuit of the new mistress of the seas—America which had proclaimed: "He who masters Neptune's trident masters the world." They zealously summed up the results at headquarters, at design bureaus, and in plant locker rooms—how many weeks earlier and who had launched the next nuclear leviathan into the water and how much faster were dockside, sea, and deep-water trials conducted, who had and how many more missile silos and multiple warheads were there? Farther, deeper, quicker... And faster, faster, faster....

The battle of structural ideas and the race of assembly lines was transferred to the ocean depths and there it found the harsh reality of a "war without bullets" and mutual secrecy of the hunt for missile carrying submarines. The Navy restrained, the Navy covered, the Navy provided retaliation, and the Navy demonstrated.... They began seriously talking about it at the Pentagon

and at the White House. In 1976, the Soviet submarine armada became truly great, having surpassed the U.S. in the number of nuclear submarines.

Today already on the 30th anniversary of the submarine war, it has had its heroes and victims unknown to the world. And I fervently believe that a Book of Memory [Kniga Pamyati] will not only be created for soldiers who died in Afghanistan...

The nuclear missile, ocean [submarine]—like all grandiose deeds of the Country of the Soviets—was created "at any cost." And first of all at the cost of the elementary vital benefits of those who built it and those who guided it to the world's expanses. And right now a majority of gruesome homes in which military seamen's families are nestled stand on the half-rotted prewar vintage infrastructure.... Housing, refueling complex docks, and roads—all of this later, later, later.... Endure and pass the winter not for the first time! The main thing is: Red Star nuclear submarines are sailing at any point of the World's Ocean—from the poles to the tropics.

But the Navy begins at the shore. And the shore with its miserable infrastructure greets the "tired submarines" with the generosity of a beggarly stepmother. Any vital concern—from a bath to replacement of a periscope is becoming a matter of worldly cunning and heroic efforts of the entire crew.

The cachectic infrastructure of this enormous fleet—harbors, arsenals, docks, and first of all ship repair facilities—has been determined by this same principle from five-year-plan to five-year-plan: Endure, make ends meet... "The Navy is being built to fight and not to be repaired." According to legend, that is precisely how former Commander-in-Chief of the Navy S.G. Gorshkov, the founder of the great armada, answered a proposal to build a new ship repair plant, thus, ship repair became the Navy's curse, the misfortune of misfortunes.

And here today, we are finding out, to the cries of widows and the salvos of funeral salutes, that Brezhnevites built the Navy calculating only on their own reign—for about 20 years. The life cycle of our aging ships lasted about that long. But if the tattered and poor repair basing system permitted us "to push out" ships to defend the USSR's maritime lines and with its current decrepit [condition] and the significant aging of 1st and 2nd generation nuclear submarines, it is in no way suitable for naval forces of the 1980-1990's. It is astonishing—while we did not know how (did not wish) to create the industry of disposable syringes, we contrived to build a "disposable navy." By the way, this is in the spirit of our favorites: Disposable ecology, disposable "Khrushchoby" [Khrushchev's slums], and after us—either the deluge or Chernobyl.

The undeclared submarine war has still not ended and no one has even seriously started talking about its cessation. Today when this war requires a qualitatively new deep-water fleet, we are attempting to erect a

colossus on the clay feet of the worn-out "disposable" infrastructure. The Navy is feverish precisely in the rear areas where the malarial swamp is hidden.

Yes, of course, today the Navy also acutely needs a new crew manning system, a modern training methodology, complete professionalization of submariners, and a psychological accident warning system, but all of these are not even half-measures, they are quarter-measures.

The safety of a submarine cruise begins with submarine reliability.

How can we be surprised by fires on submarines in a country that has entered a crisis period where sometimes gas pipelines, mines, and trains explode, trains crash, steamships sink, and airliners are lost? We are all paying our debts for what the "fathers of the state" have done to us and to our grandchildren. The second crew was forced to pay old accounts. The newspaper orators accuse submariners of a disaster they outlived: They were late... they did not carry out... they did not engage... they did not manage. The creators of the new social consciousness are refusing them the right to a good name and honor. The fate of the Komsomolets submariners is in many ways similar to the fate of the Afghan survivors: They threw them into a hell; they decorated them; they forgot them. The Moor has done his duty! And now they knock

on the editor's door with their open letters... It is customary for them to accuse us with megaphones and to acquit us with whispers.

For the first time during the postwar period, submariners have not been buried in secrecy but in the open—publicly. For the first time, military seamen—Nakhimov graduates, cadets, and officers—lit candles at a funeral service in Leningrad's Nikolskiy Maritime Cathedral. The bitter truth was told about the lives and fates of people in black caps for the first time. Thus we bow to it!
Nikolay Cherkashin

FROM THE EDITOR: We received an Address from the crew of the nuclear submarine commanded by Captain 2nd Rank A.N. Dyachkov. The military seamen propose declaring April 7 a memorial day for all submariners who have died during peacetime.

On the anniversary of the loss of the Komsomolets, a bronze plate with the names of the Norwegian Sea victims was installed and dedicated at Leningrad's Nikolo-Bogoyavlenskiy Cathedral. It was cast with money from voluntary donations. Relatives of the dead and SOVETSKAYA ROSSIYA editors thank all of the participants in this noble cause and first of all Captain 2nd Rank V. Stefanovskiy, Captain 1st Rank G. Smalko, Vice Admiral V. Selivanov, Rear Admiral V. Loginov, V. Verzunov, and Leningrad Artists Nina and Sergey Rudakov.

Conversion Blamed for Worker Morale Problems

904F0150A Moscow *EKONOMIKA I ZHIZN*
in Russian No 16 Apr 90 p 5

[Article by M. Ivanova and A. Matveyev: "At Labor Collectives: Desire for Change and Readiness for Them"]

[Text] When we talk about conversion in general and discuss it from the point of view of the economy, we mention primarily its benefits and the positive changes it will produce in the economy. But when the time comes to implement conversion in practice, labor collectives encounter tremendous difficulties, including even conflicts between workers and management. This is understandable. Their customary way of life is being destroyed, one when they did not have to be concerned with orders, profitability or sale of output, or to trouble themselves with careful computations of production costs.

The situation has changed dramatically. According to preliminary calculations, the Moscow machine building production association "Znamya Revolyutsii," for instance, may lose as a result of conversion orders equivalent to 2 years of production in the next 5-year plan period. Meanwhile, the enterprise has greatly overhauled its capital investment and now has up-to-date technology, modern precision equipment and an experienced, highly trained workforce. How to use this powerful potential better and to achieve adequate returns? One would think that the solution is obvious: to begin producing high-tech consumer goods. Consumers will benefit while the enterprise will earn a profit. Thus far, however, they have begun producing only baby carriages. This year they plan to make 90,000 of them and by 1993, 500,000. Our market needs baby carriages, too, and yet...

"The collective's problem is that we do not yet have a clear conversion program. This is why we are unable to see the future of our production clearly," said I. Rummyantsev, director general of the association.

"The problem is," explained chief engineer Ye. Borisov, "that our equipment is geared to producing a wide variety of parts. You can imagine what will happen if even one link in this complex technological chain is broken or changed. The difficulty is also that almost all main shops are part of the same technological cycle and are geared to the finished product."

"In addition," said V. Parfenov, the head of OTiZ [Technology and Orders Department], joining in the conversation, "civilian products, which we now want to make, must be highly profitable. We must not only maintain our old profitability levels but achieve greater ones to make up for the funds we used to get from centralized ministerial sources and to have money to keep the plant's social and economic services going. For this, we need from R3 million to R3.5 million a year. We now earn only R2 million. And we no longer can count on subsidies.

"It is also important that our salaries are not high compared to other, similar collectives. Judge for yourselves: the average at the enterprise is R240-R250 a month; workers at the main production shops who are paid by the piece make R350, and engineers and technical staffs R230-R240. People have begun leaving us for other enterprises and cooperatives. We are losing valuable specialists."

Indeed, the situation at the collective is very complex. Both management and workers understand that the solution should be sought in developing a fundamentally new approach to organizing production and labor, in improving individual incentives for better work and in making the entire collective responsible for its business performance.

Thus far, the shift to Model 1 has brought few changes in incentives and in the moral and psychological climate in the collective. Nor was the introduction of economic accountability at the main production shops very helpful. Actually, it was only partial economic accountability, since the compensation fund and material incentives were tied only to growth of production. Cost of production remained outside the plant's internal economic accountability system. Naturally, such half-hearted measures could not satisfy anybody.

The collective saw an opportunity to induce people to work better, to use freed capacities better, to introduce new products and to broaden the assortment of output in leasing, i.e., in switching the plant's units to that economic system. Both management and workers were unanimous in this view.

Differences arose only with respect to timetables and the order of shifting the main and auxiliary production shops to leasing. The collective of the mechanical assembly shop No.1 wanted to be the first to try this experiment. Why?

A. Salakhmetdinov, director of the mechanical assembly shop, said:

"In leasing, we see the only solution to the apparent impasse at our shop and at the enterprise as a whole. Last year, for instance, 90 workers quit. All were highly trained specialists paid rather well, but they decided to go to the cooperatives. This means that money was not at issue, but the climate at the enterprise was. Honestly, what is the attitude of workers and specialists towards using equipment and materials? They are indifferent, at best, and work without a spark. They lack responsibility and incentives.

"We began thinking how to save our collective. It is a decent collective, full of young, competent workers and specialists. But they get no chance to show themselves or display their initiative. We decided that leasing could change our psychological climate. We need independence in our actions and decisions. It is important that one gets satisfaction from work."

The general meeting of the collective supported the shift to leasing. People wanted changes and wanted to speed them up. It was good that the impetus for leasing came from below. New economic conditions would give the collective of the mechanical assembly shop room to maneuver as far as their resources are concerned, and to use its costly, highly productive equipment to full capacity. It could produce additional output, including tools and medical equipment. First samples of medical equipment have already been manufactured, and the customers were highly satisfied. After conversion, the production of such output would allow the entire collective to improve its financial condition. They could make other sophisticated products, as well.

The collective of the shop is ready to shift to leasing right away and people wonder why management is temporizing on this issue. Workers see delays as a sign of conservatism and revulsion to new work methods. Many think that managers and specialists suspect them of greed, fearing that they would get orders on the side, at contract prices, and make more money as a result—and that this is the only reason why they want leasing. But money is only part of the issue:

"I, for instance, make a good living now," said worker M. Vyunov. "Based on this alone, I should not necessarily want leasing. It would only cause extra worries. But the

problem is that we all need leasing. The plant needs it, and the country does, too, to lead the economy out of the crisis and to give it a new lease on life. This is why I think that delays with leasing harm the collective: we are losing time and it will be very hard to catch up later."

What causes the delays? V. Butkina, director of the PEO [Production Economics Department], and chief book-keeper N. Gorin explained it primarily by the fact that it is difficult to isolate production costs of the mechanical assembly shop and by the absence of internal prices at the plant. And there is no one around whose experience they could use. No similar enterprise has internal units shifting to leasing. They, too, keep books for raw materials, equipment and other costs for several shops at once. They do not make the final product, after all.

One can understand workers' impatience, of course. They are tired of waiting. But haste can lead to opposite results. In general, no one objects to seeing the shop shift to leasing. The party committee and its secretary N. Titov are active supporters of workers.

In our view, the problem is not the current conservative way of thinking, but the price we pay for the inertia of past years and insufficient use of economic accounting. Now, life forces us to count money and to think of costs and ways to cut them.

Development of U.S. Space Laser Weaponry

Moscow TEKHNICA I VOORUZHENIYE in Russian
No 1, Jan 1990 (signed to press 15 Dec 89) pp 8-10,
back cover

[Article, published under the heading "State, Problems, Prospects," by Lieutenant-Colonels I. Ivanov and I. Chekanov, candidates of Technical Sciences: "Laser Weaponry in Space"; the article was written from materials in the foreign press]

[Text] Soon after the appearance in the 1960s of the first lasers with continuous radiating capacity of several-score kilowatts, the U.S. Defense Department organized special programs within which research was carried out on the possibility of developing laser weapons and their employment in space. In the opinion of American specialists, only in space is it possible to realize most fully the main potential advantage of such weaponry, that is, the super-fast, acutely directed propagation of the kill energy over large distances.

With the approval of the SDI Program, the U.S. Defense Department was given the task of developing the technical base for deploying a wide-scale antimissile defense system in the country. One of the requisite elements for such a system, as American specialists feel, was the presence in it of an echelon equipped with facilities for hitting ballistic missiles on the powered [active] portion of their trajectory. Currently, American specialists are examining two main versions for carrying out this task with the aid of laser weapons: using space-based lasers and ground-based lasers together with orbited "re-reflecting" or "combat" mirrors.

In accord with the first concept, there are plans to put from 50 to 150 satellites equipped with laser weapons (see the back cover) into orbits of 800-4,000 km in altitude. The placing of such satellites over the enemy missiles positions should make it possible to effectively hit targets on the portion [of their trajectory] where the missiles are emerging from the dense strata of the atmosphere and before separation of their warheads. Here, in the estimates of American specialists, the space echelon will be effective if each of the satellites is capable of hitting approximately two targets per second. This assumes rigid demands on the guidance system as the retargeting time should be not more than 0.1-0.2 of a second and precision guidance of around 0.2 of a second.

Among the merits of such an approach are the fact that there is no need to compensate for atmospheric distortion and consequently the demands on the radiation brightness are less than for ground-based lasers. Among the drawbacks are the substantial restrictions in terms of the weight of the payload lofted into space, the high demands on the reliability of the facilities and the necessity of a significant number (up to several hundred) combat stations.

In accord with the second approach, it is proposed that combat laser stations be deployed on the earth's surface while in geosynchronous orbit are "re-reflecting" mirrors for maintaining an undisturbed line of sight between the

ground laser and mirror and in low orbits the "battle" mirrors which send the rays directly to the target.

According to the estimates of American experts, such a system should consist of 5-8 ground-based laser stations operating in a wavelength spectrum of 0.8-1.3 micrometers; 3-5 "re-reflecting" mirrors with a diameter of 10 m and more and put into orbit on an order of 40,000 km; 30-150 "battle" mirrors with a diameter of not more than 10 m in an orbit from 1,000 to 4,000 km. In order to eliminate atmospheric influences on the passage of the radiation, the system would include a low-power probing laser, the beam of which would be directed from the "re-reflecting" mirror to the earth. The distortions in its phase front caused by the influence of the atmosphere would be incorporated in the form of corrections in the wave front for the emission of the ground laser. Experiments have shown that by such a method it is possible to substantially compensate for the atmosphere's influence and increase the brightness of the received ray by a magnitude.

Depending upon the radiation generating mode which is specific for each type of laser, a distinction is drawn in the several versions for hitting the target. The continuous radiation of a laser affects the material of the object hit, heating it to critical temperatures. For the thermic structural decomposition of specially protected targets, the energy absorbed by them should reach 10^7 joules.

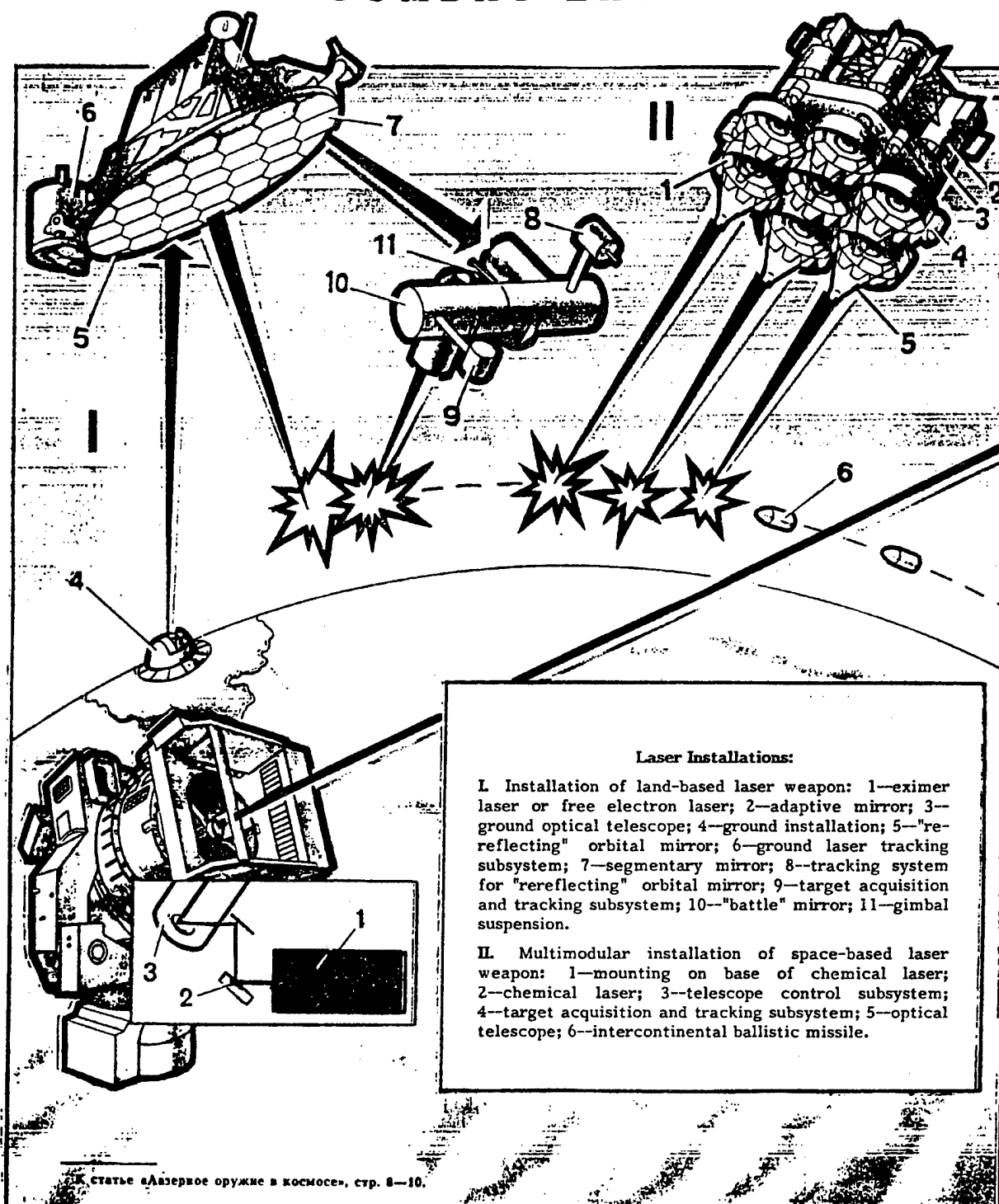
With pulsed laser radiation, the structure of the object's material is destroyed with the effect of a pulse having an energy density of at least 50 kilojoules per cm^2 in the visible or near infrared area of the spectrum and at least 5 kilojoules per cm^2 in the X-ray area of the spectrum.

The basic indicator of a laser is its brightness and this is determined by the quantity of energy emitted per unit of solid angle. The minimum possible beam divergence is limited by the diffraction limit calculated as the ratio of the radiation wavelength to the diameter of the laser aperture (the advantages of lasers with shorter wavelengths are obvious). For hitting targets with a high degree of probability, in the estimates of foreign specialists, it is essential to develop lasers with a brightness of at least 10^{20} watts per steradian. Considering the diffraction divergence of the lasers, their power with space basing should be on the magnitude of scores of megawatts and with ground-based continuous lasers on the magnitude of several gigawatts.

In the opinion of foreign specialists, the most advanced at present are the hydrogen fluoride chemical lasers (Fig. 1). With the burning of the working medium of the components released into the combustion forechamber, atomic fluorine is obtained, which in moving into the second combustion chamber enters into an exothermic reaction with the hydrogen. The excited hydrogen fluoride molecules, obtained as a result of the reaction surrender the excitation energy in the resonator in the form of infrared radiation with a wavelength of 2.7 micrometers. The main advantage of chemical lasers is the absence of primary energy sources and this makes it possible to employ them in a spaced-based version. Moreover, such lasers possess good (up to 15

Combat Lasers

COMBAT LASERS



percent) chemical efficiency. The most powerful in the United States is considered to be the continuous-wave chemical laser or MIRACL. Its output beam with a maximum medium power of 2.2 megawatts has a cross-section of 14 x 14 cm. In 1986, in testing it the stage of a Titan missile was destroyed. Since the design of the MIRACL laser has reached the size limit for linear systems, the difficulty of increasing its power has been noted by increasing size. It is felt that the laser developed for space experiments such as the ALPHA type also will not surpass the MIRACL in basic performance but merely in terms of design and engineering will be adopted for space basing. The performance of chemical lasers obtained as a result of the testing significantly differs from the initial requirements. For increasing the power of their radiation, it is necessary to increase the rate of pumping the working medium components through the resonator. However, here the heterogeneity of the gas flow and the divergence of radiation increase.

In addition, foreign specialists have noted other shortcomings of such lasers. Thus, in order to reduce the radiation divergence, it is essential to increase, if possible, the diameter of the optical system and this is limited by modern methods for manufacturing the optical elements. A major drawback, as is felt, is the reduced pressure of the working medium in the combustion chamber (below the atmospheric). For this reason for using chemical lasers under ground conditions, a complicated system for venting the used gases is required in the aim of maintaining normal generating conditions.

American specialists see two directions as promising. In the first is the search for new chemical reactions which are accompanied by emission with a smaller working wavelength. An example is the oxygen-iodine laser with an emission wavelength of 1.03 micrometers and the use of which will make it possible to reduce the diameter of the optical system by three-fold. The second direction is the use of the method of adding the emission of several modules of the ALPHA type and the principles of nonlinear optics for compensating for the radiation divergence in the active medium. According to the estimates of experts, such a method would make it possible to bring the radiating power up to 70-100 megawatts.

Along with the production of chemical lasers, the United States is developing methods for manufacturing free electron lasers (Fig. 2) and these are to be employed in land-based facilities. Such lasers generate adjustable or tunable coherent radiation as a result of the interaction of the relativist electron beam with a spatial-periodic magnetic field created by a magnetostatic element, a so-called undulator.

The free electron lasers possess a number of advantages in comparison with traditional types of lasers. First of all, this is the high power of the beams obtained in modern accelerators and the absence of an overheating working medium which limits the radiating power. The high-energy electrons under the action of the magnetic field make periodic oscillating-translatory movements and create electromagnetic

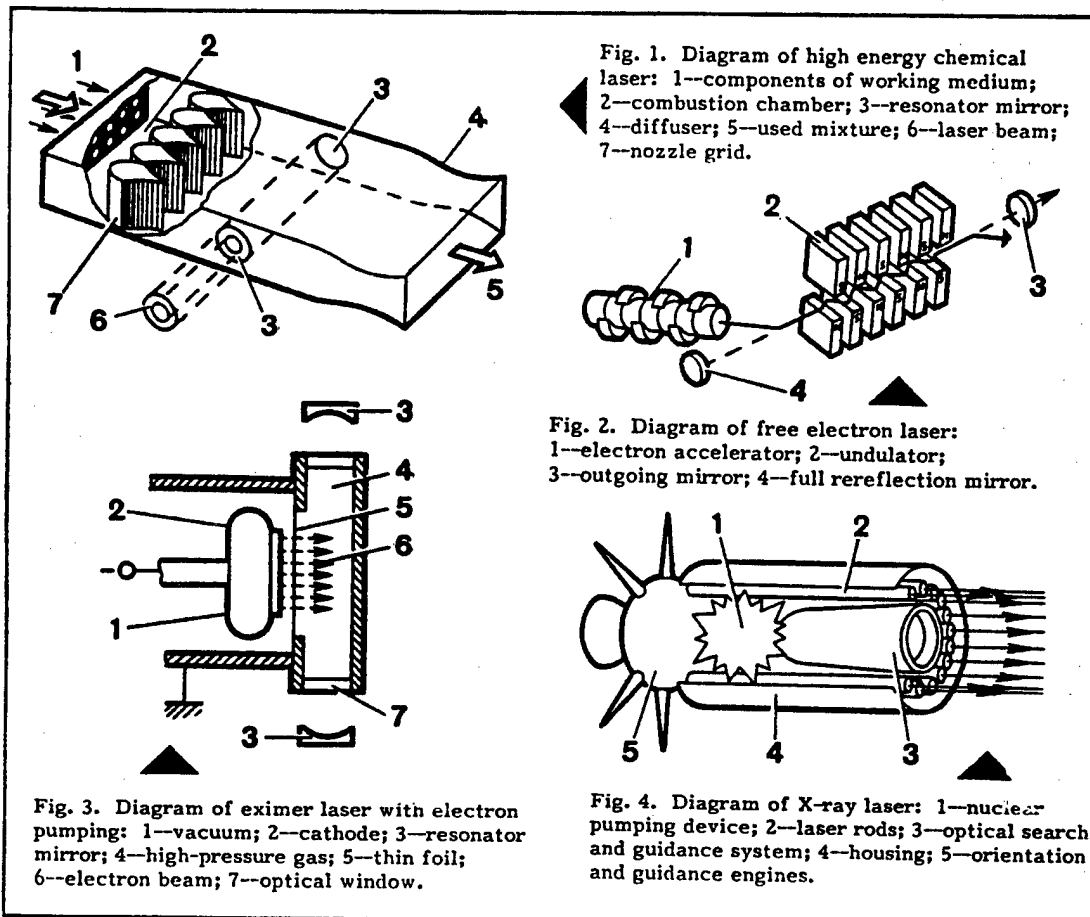
radiation in a direction coinciding with the direction of movement of the electron beam. The radiation wavelength depends upon the energy of the electrons and the parameters of the undulator. The laser beam is formed with the aid of an optical system. Due to the continuous change in the radiation frequency in a broad spectral band (from the distant infrared to the ultraviolet areas of the spectrum), there is the possibility of developing a laser with optimum spectral performance. In the view of foreign specialists, the optimum radiation wavelength of ground-based lasers should be on the magnitude of one micrometer.

At present, they have achieved a pulsed power for such a laser of one megawatt with a wavelength of one micrometer and one gigawatt with a wavelength of eight micrometers with a millisecond pulse duration. As has been announced, a major program of research has been initiated in this area and this should be completed in the 1990s with the creation of a powerful range experimental unit. However, before a free electron laser reaches a level of average radiating power of one gigawatt with a wavelength of one micrometer and which will make it possible to view it as a powerful weapon for the antimissile defense system, it is essential, as American experts feel, to solve a number of fundamental technical questions. These include developing powerful highly-efficient accelerators of the monoenergetic electron beam, the development of methods for suppressing the various mechanisms of the instable propagation of the electron beam and developing efficient optical systems. It is considered that it would be possible to develop a free electron laser with an efficiency equal to several-score percent. However, as has been announced, for this there must be the experimental testing out of a number of physical concepts which at present exist solely in theory.

The United States is continuing work on improving excimer lasers (Fig. 3). These operate on the electron junctions of molecules. Active molecules are formed from the initial components of the working medium in reactions initiated by a powerful electron beam. The most suitable molecules are KrF* (wavelength = 248 nanometers) and HeCL* (351 nanometers). Such a small wavelength makes it possible to use optical elements of substantially smaller sizes, however in this instance the demands on the quality of surface processing are increased. The main advantages of the excimer lasers are considered to be the high efficiency of converting the short radiation pulses into a killing action, the good efficiency in comparison with other lasers which radiate waves of the analogous band, and the great specific density of the energy produced per unit of volume of the active medium.

The most important practical achievements in the area of excimer lasers have been obtained in the program of thermonuclear synthesis, where a laser has been developed with a beam aperture of 1 x 1 m² and an output energy of 10 kilojoules. Certain theoretical works have examined the possibility of increasing the energy of laser radiation to several megajoules by further design advances in the laser.

Among the shortcomings of these lasers are the low strength of the optical elements in the resonator, the strong radiation



dissipation in the atmosphere and the limitations on the maximum volume of the active medium caused by the specific features of pumping. As has been pointed out in the foreign press, in the SDI Program, the scientific research has been aimed precisely at developing the technologies making it possible to eliminate these shortcomings. Thus, they have proposed using a hydrogen cell which makes it possible to bring together the rays of several laser modules with a simultaneous rise in the quality of the total beam and the conversion of its wavelength to a spectral band more convenient from the viewpoint of passing through the atmosphere. The designated technology has been tested out on relatively low-power lasers and for this reason, as foreign specialists have pointed out, great work must be done on the technical realization of the proposed approaches in large-sized units.

Within the SDI Program, special attention is being paid to the X-ray lasers (Fig. 4). X-ray radiation virtually does not pass through the atmosphere, however at altitudes over 80 km it is capable of penetrating through the residual atmospheric layer, creating an ionized channel. The explosion of a nuclear charge with the subsequent destruction of the entire device creates conditions for the generating of X-ray coherent radiation. With the effect of the radiation of the

nuclear explosion on the rods of the working medium, there is the transition of their atoms from a solid to a plasma state.

With the use of zinc, iron and copper as the active medium, the possibility arises of achieving a laser effect with wavelengths of 2.77 and 1.9 nanometers (iron); 2.23 and 1.52 nanometer (copper); 2.08 and 1.42 nanometer (zinc). The number of energy beams and their direction are determined by the number and orientation of the rods in space. X-ray radiation is emitted in the form of single pulses with a duration of several nanoseconds. The angular divergence is determined not only by the diffraction of the X-ray radiation but also by the geometry of the plasma cylinder. As a consequence of this with the actually realized geometric dimensions of the metal rods, the angular divergence will be at least a magnitude greater than the diffraction divergence. The reduction of its value to the diffraction limit can be possible, if mirrors are developed which reflect the normally falling X-ray radiation. However, for now this technical problem remains unsolved. The large amount of the angular divergence in the radiating of X-ray lasers does not make it possible at present to employ them in the system of anti-missile defense. As has been stated, the possibility is being examined of employing X-ray lasers as a source of functional interference for electronic systems.

COPYRIGHT: "Tekhnika i vooruzheniye", 1990.